

STANDARDS CATALOGUE

COMPLETE TO JULY 2026

FOREWORD

The Standards Association of Zimbabwe (SAZ) is the national standards body of Zimbabwe. Formed in 1957 and incorporated in 1960, the Association is a non-governmental and non-profit making organization operating under the Zimbabwe Companies' Act (Chapter 24:03) with Articles and Memorandum of Association. A General Council consisting of 48 representatives of government, local authorities, professional and academic institutions, industry and commerce and individuals governs the Association. The General Council determines the overall policy of the Association. Drawn out of the General Council is an Executive Committee, which keeps the activities of the Association under review and fulfills any functions that the General Council may delegate to them. Whilst the Association derives its income from certification activities, laboratory testing, calibration, training and sale of publications, it is subsidized by funds from the Standards Development Levy Fund (SDLF). Government collects the levy from specified employers through the Ministry of Industry and Commerce to promote standards in Zimbabwe.

VISION

To be the center of excellence through standards

MISSION STATEMENT

To develop national standards and promote their use for socio-economic development

CORE VALUES

Integrity Customer Centric Excellence

CORE ACTIVITIES

- To develop and publish Zimbabwe national standards.
- To promote an understanding of standards requirements by offering standards based training programs.
- To make available to producers and consumers laboratory facilities for the testing of manufactured goods, raw materials, and calibration of equipment.
- To promote the widespread use of standards by operating third party certification schemes.
- To provide information services on national, regional and international standards and technical regulations.
- To provide a World Trade Organization /Technical Barriers to Trade (WTO/TBT) enquiry point for standards and conformity assessment information.

These standards are also available for purchase from the SAZ Web store: https://sazportal.saz.org.zw/#/store/home and from the SAZ offices in Harare, Bulawayo and Mutare contact the emails below:

The SAZ Information Centre: standards@saz.org.zw / +263 242 882 017

SAZ Mutare: sazmutare@saz.org.zw / +263 20 66252

SAZ Bulawayo: sazbyo@saz.org.zw / +263 29 70447

ZWS STANDARDS

ZWS Directive: Part 2:2022
ZWS Directive
Part 2: Drafting and presentation of Zimbabwe national standards
Price Code: Gr.
71 pages
First publication 1987 as SAZ 100 Part 3
First revision 2012 as SAZ 100 Part 3
Second revision 2022, as SAZ 100: Part 3:2012

This Zimbabwe Standard Directive specifies the requirements for the structure, drafting and presentation of Zimbabwe Standards and other standards publications.

ZWS K18:1969 (Under revision)
Solid Carbon dioxide
Price Code: Gr. 2
6 pages
Reprinted 2008

Covers solid carbon dioxide for use in the carbonation of mineral waters and for refrigeration.

ZWS N7:1971
Agricultural discs
Price Code: Gr. 5
19 pages
Amended by MD 195: 1972
Reconfirmed 2002

Covers plough, harrow and seed-drill discs. Material, manufacture and dimensions are given.

ZWS 013:1969
Chipboard
Price Code: Gr. 3
10 pages
Based on BS 350

Specifies the requirements of boards consisting mainly of particles of wood and/or other lignocellulostic materials bonded with synthetic resin and/or other organic binders.

ZWS S18:1968
Worcestershire sauce
Price Code: Loan
17 pages
Amended MD 63: 1968
Endorsement of SABS 303: 1951

Covers sauce of one type and grade. Factory, ingredients, containers, packing, labelling and microbiological requirements are given.

ZWS S19:1968
Cucumber pickles
Price Code: Loan
17 pages
Amended by MD 66: 1968
Endorsement of SABS 302: 1951

Covers pickles of five types and one grade. Factory, ingredients, containers, packing, labelling and microbiological requirements are specified.

ZWS S25:1970
Canned soups
Price Code: Gr. 7
39 pages
Amended by MD 198: 1972: MD 446: 1978: MD 600: 1999
Replaces ZWS S8, ZWS S10, ZWS S11, ZWS S12, ZWS S13

Covers manufacture and processing of vegetable soup.

ZWS T1:1967
Rubber Closures for injectable products
Price Code: Loan
12 pages
Amended by MD 33: 1967
Endorsement of BS 3263: 1960

Covers material, tolerance, penetrability, fragmentation self-sealability, water extract, alkalinity or acidity and compatibility.

ZWS X3:1968
Office desks, tables and seating
Price Code: Loan
32 pages
Amended by MD 79: 1968
Endorsement of BS 3893: 1965
Partially superseded by ZWS 562 Part 1: 2002

Specifies dimensions and other requirements for office chairs, desks and tables.

ZWS X4:1968
Anthropometric recommendations for dimensions of non-adjustable office chairs, desks and tables
Price Code: Loan
12 pages
Amended by MD 80: 1968
Endorsement of BS 3079: 1959

Recommends dimensions for general purpose administrative and clerical non-adjustable office chairs, desks and tables.

ZWS Z2:1961
Marking articles made of sterling silver
Price Code: Gr. 1
6 pages
Based on: SABS 30: 1948

Details articles which qualify for the mark and the mark to be used.

ZWS Z4:1961
Miners' boots (Derby type with premoulded stuck-on-sole and heel)
Price Code: Gr. 3
10 pages

Covers men's Derby type mining boots with reinforced toe cap.

ZWS Z5C:1973
Charts for the identification of the contents of gas containers
Price Code: Loan
8 pages
Amended by MD 254:1973; MD 483: 1982
Endorsement of BS 349C: 1973

A 760 by 460 mm chart giving marking for gas cylinders with 24 different contents.

ZWS Z6:1964
Medical gas cylinders and anaesthetic apparatus
Price Code: Loan
23 page
Endorsement of BS 1319 1955

Specifies construction and identification of medical gas cylinders and gives fully, dimensioned details of non inter-changeable outlet for various gases and gas mixtures.

ZWSZ14:1971
Conveyor belting for use in flammable or explosive atmospheres
Price Code: Loan
16 pages
Amended by MD 137:1971
Endorsement of BS 3289: 1960
Specifies requirements and test methods for conveyor belting intended for underground use.

ZWS Z17:1971
Industrial gloves
Price Code: Loan
48 pages
Amended by: MD 148: 1971
Endorsement of BS 1651: 1966
Partially superceded by ZWS 339: 1991

Covers a range of gloves from protection against common industrial hazards. The standard classifies these common hazards and recommends gloves for protection against each hazard.

NOTE: From 1974 onwards the practice of using alpha-numeric identification which indicated broad subject classification was discontinued. All standards published since then are purely numerical.

ZWS 100 (under revision)
Code of practice for preparation of ZWS standards
Part 1:2016 Guide to general principles of standardization
Price Code: Gr. 6
22 pages

Describes the context of standardization and in particular identifies the aims and principles that apply when standards are prepared , the range of ZWS standards publications and the role of standards within the framework of Zimbabwe law.

Part 2:2010 SAZ and the technical committee procedures
Price Code: Gr.6
25 pages

Explains the organization and functions of ZWS and outlines the procedures governing the presentation of Zimbabwe Standards and other standards publications.

Part 3:2012 Drafting and presentation
Price Code: Gr. 8
64 pages
Based on BS 0 Part 3:1981

Specifies the requirements for the structure,drafting and presentation of Zimbabwe standards

ZWS 101:1976
Safety factors and smoke emission of domestic stoves burning solid fuels at a rate not exceeding 5 kg per hour
Price Code: Gr. 3
6 pages
Reprinted 2014

Covers the smoke emission and certain safety factors of domestic stoves burning solid fuels. Quality of manufacture and general performance not included.

ZWS 102:1993
Steel pipes
Part 1: Steel pipes of nominal bore not exceeding 200mm
Price Code: Gr. 7
15 pages
Replaces: ZWS 102: 1989
Based on SABS 62: 1989
Reprinted 2014

Covers requirements for three classes (light, medium and heavy) of welded and seamless steel pipes of nominal bore in the range 6 to 200 mm.

Part 2: Pieces and pipes fittings of nominal bore not exceeding 150 mm, made from steel pipe
Price Code: Gr. 6
17 pages
Replaces: ZWS 102: 1989
Based on SABS 62: 1989
Reprinted 2014

Covers requirements for two classes (light, medium and heavy) of welded and seamless steel pipes of nominal bore in the range 6 to 150 mm.

ZWS 103:1974
Glazed ceramic tiles and tile fittings for internal walls
Price Code: Loan
32 pages
Amended by MD 259: 1974
Endorsement of BS 1281: 1966

Gives the requirements for one size of tile 150 x 150 x 6 mm and various fittings.

ZWS 104:1974
Precast concrete paving slabs
Price Code: Gr. 4
9 pages
Based on SABS 541: 1971
Reprinted 2000
Reprinted 2007

Covers precast concrete paving slabs for use on a weaving surface on pavements, footpaths, etc.

ZWS 105:2001
Road tar binders
Price Code: Gr. 7
31 pages
Replaces: ZWS A20:1966
Based on SABS 748: 1978
Reprinted 2005

Covers the essential requirements for a number of viscosity grades of road binders prepared entirely from crude tars produced as a by-product of the carbonisation of coal in coke ovens suitable for various types of road construction.

ZWS 106: 1974
Standard export documents
Price Code: Gr. 7
40 pages
Based on SITPRO: 1970

Lays down the requirements for a standard form of export documents for use in Zimbabwe and which can be reproduced by the "one run", system.

ZWS 107:1998
The assessment of defects in textile piece-goods and made-up articles
Part 1: Defects in woven piece-goods (cellulosic and cellulosic blends)
Price Code: Gr. 5
14 pages
Based on SABS 076: Part 1: 1981
Reprinted 2014

Applicable to woven fabrics (cellulosic and cellulosic blends) manufactured from yarns spun on the cotton system.

Part 2: Defects in woven terry toweling
Price Code: Gr. 4
11 pages
Based on SABS 076: Part 2: 1972

Covers the permissible number of defects, stringing of defects, length deductions of defects, net length, and colour matching and includes a guide to the various defects that shall be strung by the manufacturer.

Part 3: Defects in household articles
Price Code: Gr. 5
14 pages
Based on SABS 076: Part 7: 1985

Applicable to made-up household textile articles and includes a guide to the types of defects that are unacceptable in a made-up articles.

ZWS 109:1995
Winding wires
Part 1: Polyurethane base with solderable properties Class 130
Price Code: Gr. 6
23 pages
Replaces: ZWS 108: 1974
Based on BS 6811: Part 1 Sec. 1.1, BS 6811 Part 3 Sec. 3.2 and BS EN 60182: Part 2
Reprinted 2012

Specifies requirements, including those for dimensions, for round copper conductors covered with a synthetic enamel of class 180 based on a polyesterimide resin.

Part 2: Polyeresterimide base enamel Class 180
Price Code: Gr. 6
24 pages
Replaces: ZWS 109: 1974
Based on BS 6811: Part 1 Section 1.1: part 3 Section 3.2 and BS EN 60182: Part 2

Specifies requirements, including those for dimensions for round copper conductors covered with a synthetic enamel of class 180 based on a polyesterimide resin, which may be a modified resin.

Part 3: Test methods
Price Code: Gr. 8
55 pages
Replaces ZWS 108: 1974 and ZWS 109:: 1974
Based on BS 6811: Part 2 Section 2.1 to section 2.6

Relates the methods of test for winding wires, irrespective of the conductor material and the type of insulation.

ZWS 111:1974
Canned meat products
Part 1: Corned beef and corned meat
Price Code: Gr. 4
10 pages
Amended by MD 283: 1974
Based on SABS 274: 1950
Reprinted 2007

Covers manufacture, processing and treatment of canned meat for human consumption.

ZWS 112:2023
Dog and cat food
Price Code: Gr. 6
14 pages
First published, 1974
First reveison, 1999
Reprinted 2014
Second revision, 2023

This Zimbabwe Standard specifies the requirements for wet and dry types of dog and cat foods..

ZWS 113:2000
Fibre-cement pressures pipes and joints
Price Code: Gr. 6
26 pages
Replaces: ZWS 113: 1987
Based on BS 486: 1966
Reprinted 2014

Specifies the characteristics of fibre – cement pipes and joints for use under pressure for non-potable water and sewage.

ZWS 114:2010
Softwood flooring boards (Metric units)
Price Code: Gr.7
19 pages
Replaces: ZWS O 5: 1967
Amended by MD 394/5: 1977: MD 269: 1974
Based on SABS 629: 1973

Covers requirements, marking and test methods for two grades of board.

ZWS 115:1974
Terrazzo tiles
Price Code: Gr. 6
22 pages
Based on BS 4131: 1973

Specifies requirements for hydraulically – pressed terrazzo floor and wall tiles.

ZWS 116:1974
Self-tapping screws and metallic drive screws
Price Code: Loan
52 pages
Amended by MD 271: 1974
Endorsement of BS 4174: 1972

Relates to ferrous and non ferrous thread cutting and thread forming screws with countersunk, raised countersunk, raised countersunk or pan heads, slotted or recessed.

ZWS 117:1974
Small garden implements
Price Code: Gr. 4
8 pages

Covers planting trowels, weeding forks and daisy grubbers. Materials dimensions and strength requirements are given.

ZWS 118:1974
Hardwood block and strip flooring
Price Code: Gr. 7
29 pages
Based on SABS 281: 1972
Reprinted 2007

Covers species of wood, dimensions, defects squareness, finish and preservative treatment of two grades of flooring.

ZWS 120:2022
Eucalyptus poles, cross-arms and spacers for power distribution and communication systems
Price Code: Gr. 7
36 pages
Based on SABS 754
Eigth Revision

This standard specifies the requirements for eucalyptus poles, grown in Southern Africa, and that are intended to be used as upright supports for communications systems, and as upright supports, cross-arms and spacers (in five-pole structures) for power distribution lines.

ZWS 121:1989
Two-pole and earthing-pin plugs socket-outlets and socket-outlet adaptors for circuits up to 250 volts
Price Code: Gr. 8
53 pages

Relates to plugs, fused and non-fused, socket-outlets, shuttered and non-shuttered and fused socket-outlet adaptors, shuttered and non shuttered, for use in domestic premises, offices, etc with ratings up to 30 A.

ZWS 122:1991
General purpose fuse links for domestic and similar purpose (primarily for use in plugs)
Price Code: Gr. 7
30 pages
Based on BS 1362:1973
Reprinted 2000
Reprinted 2006

Specifies dimensions and performance requirements for general purpose cartridge fuse links of current ratings not exceeding 13 A for domestic and similar purposes.

ZWS 123:1974
Glass fibre reinforced plastics baths and basins
Price Code: Gr. 6
20 pages
Based on BS 4305: 1972
Reprinted 2006

This Zimbabwe Standard specifies the properties of the glass fibre reinforced plastics (GFRP) from which the baths and basins are made and the design, construction, workmanship, dimensions, testing and inspection procedure of the baths and basins. The rigidity of the finished product is specified, whether intrinsic to the material or attained by extra reinforcement or cradling arrangements.

ZWS 125:1974
Protective apparel for use against pesticides
Price Code: Gr. 4
12 pages
Reprinted 2003

Covers the production, testing and sampling of the following protective apparel: sou`westers, jackets, trousers, one-piece suits, boots, gloves, goggles, respirators, face-masks, face-shields and aprons.

ZWS 126:1997
Food Hygiene
Part 1: 1997 Manufacturing
Price Code: Gr. 9
13 pages
Based on SABS 049: 1989
Reprinted 2006

This part of the Zimbabwe Standards specifies the requirements for general hygienic practices for use in the handling (including preparation, processing, packaging, storage, transportation, distribution and sale) of food for human consumption in order to ensure a safe, sound and wholesome product.

Part 2:2001 Catering sector
Price Code: Gr. 9
138 pages
Reprinted 2004
Based on UK Industry guide to Good Hygiene Practice - Catering Guide

Covers hygiene requirements for various food catering operations.

Part 3:2001: Retailing
Price Code Gr. 8
85 pages
Reprinted 2004

Based on UK Industry guide to Good Hygiene Practice –Retail Guide

Intended for application to food retailers, including grocery, butchers, fishmongers, green grocers, supermarkets etc. Also applies to business where food is only a part of what they do such as food shops at fuel stations and news agents.

Part 4:1999: The horticultural Industry
Price Code: Gr. 7
29 pages
Amended by MD 628: 2000
Based on Codex Volume 1B: 1995
Reprinted 2006

Recommends general hygienic practices for use in the handling of horticultural food and human consumption in order to ensure a safe, sound and wholesome product.

ZWS 127:2006
Ballasts for fluorescent lamps
Price Code: Gr. 8
50 pages
Reprinted 2006 incorporate MD 572: 1996
Partially superseded by ZWS 354: 1978
Identical to SABS 890:1977

Covers ballasts (for hot cathode lamps) with insulation at least class A; power factor corrected or uncorrected; for use on 50 Hz supply at 110-250 V and operation at temperatures between 10 and 40 ºC. The specification does not cover resistors and filament lamps used as ballasts.

ZWS 130:2010
Plywood and composite board
Price Code: Gr. 7
37 pages
Replaces ZWS O2: 1973 and ZWS O12 1969
Reprinted 2004

Covers requirements for materials, construction, preservative treatment, dimensions and performance of plywood and composite board which is at least 3 mm thick.

ZWS 133:1975
Internal combustion engine lubricating oil
Price Code: Loan
13 pages
Replaces: ZWS D7: 1970
Amended by MD 289: 1975
Endorsement of SABS 704-A: 1974

Covers one type of engine lubricating oil (in six viscosity grades) suitable for crankcase lubrication of reciprocating internal combustion engines of both the spark ignition and the normally aspirated compression ignition types.

ZWS 134:1975
Sodium-base lubricating grease
Price Code: Gr. 4
9 pages
Replaces ZWS K23
Based on SABS 351: 1974
Reprinted 2000

Covers grease in four consistency grades.

ZWS 135:1975
Chassis lubricating grease
Price Code: Gr. 4
9 pages
Replaces ZWS K24
Endorsement of SABS 352: 1974
Reprinted 2000
Reprinted 2007

Covers water-resistant grease in three consistency grades.

ZWS 136:1975
Lithium-base lubricating grease
Price Code: Gr. 4
8 pages
Replaces ZWS K25: 1970
Based on SABS 406: 1974

Covers four grades suitable for temperatures between -20ºC and 120ºC.

ZWS 137:2000
The construction and site control of earthworks
Price code: Gr. 8
74 pages

Deals with the selection of materials, construction practice, tolerances and quality control of earthworks. Should be read in conjunction with ZWS 185.

ZWS 138:1975
Bitumen-based filling compounds for electrical purposes
Price Code: Gr. 7
18 pages
Replaces ZWS C5: 1967
Reprinted 2006 incorporate MD 293
Identical to BS 1858:1973

Covers bitumen-based filling compounds in six classes, according to softening point.

ZWS 139:1975
Meat-cutting bandsaw blades
Price code: Gr. 4
7 pages
Based on ZWS B6: 1972

Gives requirements for blades supplied either in coil or cut ready for use. Saws with heat-hardened teeth are not included

ZWS 140:1975
Calcium-base lubricating grease
Price Code: 4
9 pages
Replaces ZWS K22
Reprinted 2000

Covers water-resistance grease in five consistency grades.

ZWS 141:1978
Cast Iron fittings foe asbestos-cement pressure pipes
Price Code: Gr. 7
29 pages
Equivalent to SABS 546 1977

Covers two categories of fittings for pressure up to 1 800 kPa, one for constant outside diameter pipes and the other for constant internal diameter pipes. Constructional requirements and tests are detailed.

ZWS 142:2023
Pig feeds
Price Code: Gr. 5
16 pages
First published 1959 as CAS 142,
First revision 1972, as CAS 142,
Second revision 1975, as CAS 142,
Third revision 1996, as ZWS 142,
First reprint 2005, as ZWS 142,
Fourth revision 2023, as ZWS 142

This Zimbabwe Standard covers the following types of pig feeds: Pig creep meal; Pig weaner meal; Pig grower meal; Dry sow and boar meal; Lactating/brood sow meal; and Pig finisher meal. It also provides for all types of concentrates in the categories listed above.

ZWS 143:1975
Life jackets
Price Code: Gr. 4
12 pages
Amended by MD 471: 1982
Reprinted 2012

Applies to inherently buoyant jackets, preferably of the waist coat type for use in conditions prevailing on lakes and rivers of Zimbabwe.

ZWS 147:1998
Switches for household and similar fixed electrical installations – General requirements
Price Code: Gr. 8
95 pages
Based on BS 3676: Part 1:1996

Specifies requirements and test for manually operated general purpose switches with a rated voltage not exceeding 440 V a.c or d.c and a similar fixed electrical installations.

ZWS 148:1994
Cast steel gate valves
Price Code: Gr. 5
15 pages
Replaces: ZWS 148:1975
Reprinted 2009

Covers the material and constructional requirements for flanged cast steel gate valves (50 to 350 mm nominal bore) with rising or non-rising spindles and intended for use in waterworks, mining and industrial applications, in which the pressure differences across the gate in the closed position, will not exceed 2.5 mPa and the temperature of the fluid will not exceed 50 ºC.

ZWS 149:1993
Cast Iron gate valves for waterworks
Price Code: Gr. 8
46 pages
Amended by MD 400 1977
Replaces ZWS 149: 1977
Based on SABS 664: 1989

Covers the material and constructional requirements for cast iron gate valves of three classes and of either the inside or the outside screw type.

ZWS 150:1975
Matrices for tyre reconditioning
Price Code: Gr. 4
7 pages
Reprinted 2012

Covers the alloy to be used, casting and machining processes and pressure tests.

ZWS 152:1999
Pepper sauce
Price Code: Gr. 4
7 pages
Reprinted 2006 incorporate MD 611: 1999
Reprinted 2012

Covers pepper sauce of one type and grade.

ZWS 153:2000
Spades and shovels
Price Code: Gr. 6
26 pages
Replaces ZWS Z12
Based on SABS 284: 1974
Reprinted 2007

Covers dimensional, material, constructional and strength requirements for four types of spades and ten types of shovels.

ZWS 154:1999
Forks and rakes
Price Code: Gr. 7
25 pages
Replaces ZWS Z24
Based on SABS 390: 1974
Reprinted 2007

Covers material, dimensional, constructional and strength requirements of six types of forks and seven types of rakes.

ZWS 156:1975
Unplasticized polyvinyl chloride (UPVC) components for rainwater systems
Price Code: Gr. 5
16 pages
Reprinted 1997 incorporate amendments
Identical to SABS 11: 1970
Reprinted 2007

The specification covers unplasticized polyvinyl chloride (UPVC_ rainwater system components of different types and intended for external applications.

ZWS 157:1995
The use of structural steel in building
Price Code: Gr. 9
119 pages
Based on BS 449: Part 2: 1969
Reprinted 2004

Relates primarily to the use of hot rolled steel sections and plates and normalized tubular shapes.

ZWS 158:1975
The use and disposal of acaricides (cattle dips)
Price Code: Gr. 4
8 pages
Amended by MD 423: 1978
Reprinted 2005

Covers the handling, use and disposal of acaricides, so that these operations can be effected with minimum risk to humans and livestock.

ZWS 159:1975
Rubber and plastics belting of textile construction for use on bucket elevators
Price Code: Gr. 7
15 pages
Replaces: ZWS Z14: Part 2 & 4
Reprinted 1996 incorporation MD 312: 1975
Identical to BS 490: Part 2: 1975
Reprinted 2007

Covers construction, preferred dimensions, tensile strength, ply adhesion, sampling and testing of belting impregnated with either a rubber or a plastic mix.

ZWS 160:1977 (under revision)
Basic data for the design of buildings: loads and forces
Part 1: Dead and imposed loads
Price Code: Loan
20 pages
Endorsement of BS CP 3: Chapter V Part 1: 1967
Reprinted 2012

Gives dead and imposed loads as applied to new buildings, alterations and additions to existing buildings or change of use of existing construction.
Part 2: Wind loads
Price Code: Loan
52 pages
Amended by MD 380: 1977
Endorsement of CP 3 Chapter V Part 2: 1972

Gives methods for calculating wind loads which should be taken into account when designing buildings. Does not apply to buildings of unusual shape or those in unusual locations.

ZWS 162: Structural use of timber
Part 1: 2000 Limit states design
Price Code: Gr. 10
39 pages
Reprinted 2004
Reprinted 2005

Gives guidance on the design, fabrication and erection of timber structures (and structural (and structural timber components in structures framed in other materials) where the design is based on limit states.

Part 2:2001 Allowable stress design
Price Code: Gr. 10
154 pages

Gives guidance on the structural design based on the allowable stresses of timber and on the evaluation of timber members and structures.

ZWS 164:1975
The structural use of reinforced concrete in building
Price Code: Gr. 8
83 pages
Amended by MD 1241: 1973: MD 1552: 1974: MD 1923: 1976: MD 2304: 1977 MD 324: 1975
Endorsement of BS CP 114: 1969
Reprinted 2013

This Code deals with the structural use of reinforced concrete in buildings. The Code does not deal with prestressed concrete or with recommendations for the manufacture of precast factory-made reinforced concrete units. Other reinforced concrete constructions of a specialized character, such as water retaining structures, are not included. This Code does not cover the structural use of concrete made with high alumina cement. It has been assumed in drafting this Code that the design of reinforced concrete is entrusted to chartered structural or civil engineers, qualified in reinforced concrete, for whose guidance it has been prepared and that the execution of the reinforced concrete work is carried out under the direction of a qualified supervisor. The recommendations for stability given in this Code have been prepared on the assumption that all the load bearing elements (e.g. slabs, columns, walls etc.) are of concrete. In a building where concrete elements such as floor slabs, walls etc. are used in conjunction with load bearing elements of other materials and remain appropriate. However, the ties recommended in Clause 4.10.1 and remain appropriate. However, the ties recommended in Clause 4.10.2 as part of the means of satisfying the principles of Clause 4.10.1 will be required only when adequate stability is not provided by other means.

ZWS 165:1975
The structural use of prestressed concrete in buildings
Price Code: Gr. 9
44 pages
Amended by MD 325: 1975
Endorsement of BS CP 155: 1969
Reprinted 2014

This Code deals with the structural use of prestressed concrete in buildings. It covers both work carried out on site and the manufacture of precast prestressed concrete units. It has been assumed in drafting this Code that the design of prestressed concrete is entrusted to chartered structural or civil engineers, experienced in the structural use of concrete, and that the execution of the work is carried out under the direction of a competent supervisor. The supervisor should not only be familiar with the technique of making high quality concrete, but should also be experienced in the various stressing operations involved. The stressing operations should be carried out under his direct supervision. The recommendations given in this Code may often be applicable, with suitable modifications, to the design and construction of structures other than buildings. Recommendations for the use of prestressed concrete for liquid retaining structures are given in CP 2007, Liquid retaining structures. In this document, it has been necessary to restrict the cements to those specified in EN 196, 197 and the aggregates to those specified in ZWS 233. It may be possible to extend the scope where adequate data are available. These recommendations may also be applicable to the design and construction of prestressed members using materials other than concrete, including composite materials, provided that their different properties are taken into account. The recommendations for stability in this Code have been prepared on the assumption that all the load bearing elements (e.g. slabs, columns, walls etc.) are of concrete. In a building where concrete elements such as floor slabs, walls etc. are used in conjunction with load bearing elements of other materials, the principles recommended for stability in Clause 301remain

appropriate. However, the amended by AMD 1924) as part of the means of satisfying the principles of Clause 6.1 will be required only when adequate stability is not provided by other means.

ZWS 166:1975
The structural use of precast concrete
Price Code: Gr. 9
147 pages
Amended by MD 326: 1975
Endorsement of BS CP 116: 1969
Reprinted 2013

This Code deals with precast concrete and its use in structures. It includes structures which are partly precast and partly cast in place, usually known as composite concrete construction, and also precast floors. The recommendations given are not confined to buildings, but include the design, manufacture and construction of other types of structures. They are complementary to those given in CP 114, and CP 115. The recommendations given in these, where applicable to the standard of structural precast concrete envisaged, have been reviewed and brought together in this Code with additional information and recommendations not previously published. The Code does not take account of the possibility of fatigue conditions arising from frequent fluctuations or alterations of stress. This Code does not give recommendations for the use of precast concrete made with high alumina cement. This Code deals with concrete made with cements specified in BS EN 197 and BS 146, and aggregates specified in ZWS 233 and BS 1047. Certain lightweight aggregates have also been included, the methods of test for which are given in BS 3797. Provision has also been made for cements and aggregates of British manufacture outside these standards, where adequate data are available. The use of mild steel bars, cold-worked steel bars, high-tensile steel bars, plain or indented or crimped hard-drawn steel wire and strand has been considered. The recommendations for stability given in this Code have been prepared on the assumption that all the load bearing elements (e.g. slabs, columns, walls etc.) are of concrete. In a building where concrete elements such as floor slabs, walls etc. are used in conjunction with load bearing elements of other materials, the principles recommended for stability in 14.1 remain appropriate. However, the ties recommended in 14.3 as part of the means of satisfying the principles of 14.1 will be required only when adequate stability is not provided by other means. Where materials and methods are not covered by this Code, this is not to be regarded as discouraging their use, provided that the materials, methods of design and construction are such as to ensure a standard of strength and durability at least equal to that recommended in this Code. This Code does not deal with precast concrete units for which British Standards already exist or with precast concrete piles. Recommendations for the design and construction of reinforced and prestressed concrete structures for the storage of water and other aqueous liquids are given in CP 2007. It has been assumed in drafting the Code that the design and manufacture of the precast units shall be under the overall control of a chartered structural or civil engineer, experienced in concrete technology, hereinafter referred to as the Engineer', for whose guidance it has been prepared. Structural precast concrete elements are particularly suitable for incorporation in standard building systems. However, there is a danger that these standard designs may be adapted for uses different from those for which they were originally prepared, and it is therefore imperative that where any alteration of a standard design is contemplated, the strength and stability of the structure should be checked for the altered conditions. This Code introduces a detailed method of statistical control to ensure that the required quality of concrete is consistently produced, and it includes methods of analysis which indicate when changes in the mix proportions are necessary. The manufacture of units should be directly controlled by a competent supervisor who has reached the standard of the City and Guilds of London Institute Examination in Concrete Technology (Supervisory level).

ZWS 167:1975
Earthenware aeration tiles
Price Code: Gr. 4
6 pages
Reprinted 2007

Covers the type of tiles used in biological trickle filters treating sewage and trade effluents.

ZWS 168:1975
Screwdrivers
Price Code: Loan
25 pages
Amended by MD327: 1975
Endorsement of BS 2559: Part 1: 1971
Reprinted 2012

Covers six types of screwdrivers for use with slotted head screws.

ZWS 169:2010
Laminated timber (glulam)
Price Code: Gr. 7
35 pages
Based on SABS 1460: 1988
Covers the general requirements for softwood and hardwood laminated timbers.

ZWS 170
The structural use of concrete
Part 1: 2003 Code of practice for design and construction
Price Code: Gr. 11
223 pages
Replaces ZWS 170: 1978
Reprint 2012

Gives recommendations for the structural use of concrete in buildings and structures, excluding bridges and structural concrete made with high alumina cement.

Part 2:1978 Design charts for singly reinforced beams doubly reinforced beams and rectangular columns.(Under revision)
Price Code: Gr. 9
90 pages
Amended by MD 417: 1978
Endorsement of BS CP 110 Part 2: 1972
Reprinted 2013

Covers design charts for singly reinforced beams, doubly reinforced beams and rectangular columns. The charts have been based on the assumptions laid down in Part 1, use being made of the parabolic-rectangular stress block throughout.

Part 3:1978 Design charts for circular columns and prestressed beams (under revision).
Price Code: Gr. 11
174 pages
Amended by MD 418: 1978
Endorsement of BS CP 110 Part 3: 1972

Guidance is given on the specification and workmanship of concrete, the inspection and testing of structures and the fire resistance of various forms of construction. Parts 2 and 3 consist of design charts for use with Part 1.

ZWS 171:1975
Flexible urethane foam for load bearing applications
Price Code: Gr. 5
12 pages
Replaces ZWS D5
Amended by MD 329: 1975
Endorsement of BS 3379: 1975
Reprint 2012

Covers five types of foam for four conditions of services, depending upon severity. The foam is manufactures in block, sheet and strip foam in moulded and fabricated shapes and as reconstituted materials.

ZWS 172:1975
Ceramic insulators and pole fittings for telephone lines
Price Code: Gr. 8
44 pages
Amended by MD 330: 1975
Endorsement of BS 16: 1974
Reprinted 2001
Reprinted 2013

Dimensions and methods of test of insulators and fittings are detailed.

ZWS 173:1990
Code of practice for timber buildings
Price Code: Gr. 9
113 pages
Replaces ZWS 173: 1975

Describes practices to be followed in the design and construction of single-storey and double –storey timber buildings and portions of such buildings for residential or similar use. It does not cover buildings more than two storeys in height or where walls have a dimension exceeding 6 m without effective lateral restraint.

ZWS 174:1983
Tarpaulins
Price Code: Gr. 6
21 pages
Replaces: ZWS L 5: 1964
Amended by MD 547: 1993
Based on BS 3408: 1977
First reprint 2018

Specifies requirements for materials, manufacture and proofing of tarpaulins that have been treated and/ or coated to induce water resistance and rot resistance.

ZWS 175:1975
Plastics W.C seats
Price Code: Loan
38 pages
Amended by MD 335: 1975
Endorsement of BS 1254: 1971

Covers two types of seat for use with W.C pans complying with BS 1213.

ZWS 176:2000
Fire doors and fire shutters
Price Code: Gr. 6
8 pages
Reprinted 2004

Specifies the requirements for four classes of fire door and fire shutter assembled and two classes of fire doors and fire shutters that are intended to close permanent openings in walls or partitions, to provide a fire resistance of 30 mins or more in order to stop the spread of fire and to limit the spread of smoke.

ZWS 178:1976
Low voltage insulators
Price Code: Loan
34 pages
Amended by MD 340: 1976
Endorsement of SABS 161:1955
Reprinted 2013

Covers pin, reel and shackle insulators and bushings and support insulators for busbars for voltages up to 1000 V.

ZWS 179:1976
Cleats, bobbins and leading-in tubes
Price Code: Gr. 6
8 pages
Amended by MD 341: 1976
Endorsement of SABS 176:1955
Reprint 2016

Covers dimensional and quality requirements for porcelain cleats, bobbins and leading in- tubes for the support of insulated conductors in the open wiring of circuits at system voltages up to and including 660volts between conductors.

ZWS 181:1992
Mirrors
Price Code: Gr. 5
12 pages
Replaces ZWS 181: 1976
Reprinted 2010

Covers three qualities of back silvered mirrors made from plate float or sheet glass.

ZWS 182:1976
Steel boilers and super heaters tubes
Part 1: **Low tensile carbon steel tubes without specified elevated temperature properties**
Price Code: Gr. 6
49 pages
Amended by MD 343: 1976
Endorsement of BS 3059: 1968
Reprinted 2012
Reprinted 2014

Covers the requirements for tubes not exceeding 127 mm outside diameter intended for low pressure boilers for use at temperatures up to 40 ºC.

Part 2: Carbon alloy and austenitic steel tubes with specified elevated temperature properties
Price Code: Gr. 7
27 pages
Endorsement of BS 3059:1969
Reprinted 2014

Contains requirements for seamless and electric resistance welded tubes of carbon and alloy steels and for cold finished seamless tubes of austenitic steels, not exceeding 12.5mm thick and 127mm outside diameter for use in the construction of boiler units.

ZWS 184:2024
Wooden doors
Price Code: Gr. 7
26 pages
Based on SABS 545:2018.
Replaces ZWS A 27: 1968
First published, 1968 as CAS A27,
First revised, 1976 as CAS 184,
Second revision, 2000 as ZWS 184,
First reprint, 2010 as ZWS 184,
First revision 2024 as ZWS 184.

This specification covers the requirements for wooden doors of three exposure classes and three performance classes. This specification does not cover the requirements for fire doors manufactured in accordance with ZWS 176.

ZWS 185
Methods of testing soils for civil engineering purposes
Part 1: 1998: Preparation, classification and density of soil
Price Code: Gr. 8
95 pages
Replaces ZWS A43: Part 1: 1971
Reprinted 2005

Gives methods for the preparation of soil samples and for their classification and measurements. Procedures for use in the laboratory and in the field are given and methods of recording and calculating the results are included.

Part 2: 2001: Strength tests
Price Code: Gr. 8
70 pages

Gives methods for strength testing of soils and aggregates for pavements. Procedures for use in the laboratory and in the field are given and methods of recording and calculating the results are included.

ZWS 186:1976
Identification of pipelines
Price Code: Gr. 5
11 pages
Replaces ZWS Z7
Amended by MD 345: 1976
Endorsement of BS 1710: 1975

Defines the meaning and application of colours for the identification of pipes containing fluids in liquid or gaseous conditions. Also includes ducts and conduits for electrical services.

ZWS 187:1984
Concrete roofing tiles
Price Code: Gr. 4
10 pages
Replaces: ZWS 187: 1976
Amended by
Based on SABS 542: 1969

Covers roofing tiles of plain and interlocking types. Dimensions and methods of test are given.

ZWS 188:1976
Cable glands for elastomer and plastic insulated cables
Price Code: Loan
33 pages
Amended by MD 346: 1976
Endorsement of BS 6121:1973

Gives details of glands suitable for use with cables conforming to ZWS 240.

ZWS 189:2002
Hydraulic brake fluid
Price Code: Gr. 8
49 pages
Replaces ZWS D1: 1962

Covers requirements for DOT 3 and DOT 4 fluids in hydraulic brake system of motor vehicles.

ZWS 190:2025
Methods for sampling and testing of aggregates and fillers
Price Code: Gr. 8
88 pages
Replaces: ZWS 190: 1997

This Zimbabwe Standard covers methods for sampling and testing of materials for use in the production of normal structural concrete and bituminous road surfaces. The materials may have been produced by crushing, washing and/or screening.

ZWS 191:1976
Current transformers
Price Code: Gr. 8
67 pages
Based on BS 3938:1973
Reprinted 2000
Reprinted 2005

Gives the requirements for current transformers suitable for frequencies of 15 Hz to 100 Hz, intended for use with electrical measuring instruments and electrical protective devices.

ZWS 192:1976
Covers electrodes for the manual metal-arc welding of carbon and carbon manganese steels
Price Code: Loan
14 pages
Replaces ZWS B7 and B8
Amended by MD 349: 1976
Endorsement of BS 639: 1976

Covers electrodes depositing weld metal having a tensile strength of not more than 650 mPa.

ZWS 193:1976
Cast iron baths for domestic purposes
Price Code: Gr. 5
17 pages
Replaces: ZWS A39
Amended by MD 350: 1976
Endorsement of BS 1189: 1972
Reprinted 2012

This Zimbabwe Standard specifies requirements for porcelain-enamelled cast-iron baths. For the purposes of this Zimbabwean Standard "porcelain-enamel" means the application of the finish coating by the "dry" process.

ZWS 194:1976
Hard rubber chopping blocks
Price Code: Gr.3
5 pages
Reprinted 2010

Covers chopping and cutting blocks such as those used by butchers, bakers, catering establishments, households, etc made from rubber materials.

ZWS 195:1976
Asbestos-cement pipes for sewerage and drainage
Price Code: Gr. 6
15 pages

Specifies requirements for asbestos- cement pipes suitable for gravity flow lines at atmospheric pressure for sewage and drainage applications.

ZWS 196:1979
Materials for elastomeric joint rings for pipework and pipelines
Price Code: 4
5 pages
Replaces: ZWS A37: 1969 and ZWS A38: 1969
Amended by MD 355: 1976 MD 455: 1979
Endorsement of BS 2494: 1976
Reprint 2016

Six hardnesses of vulcanized rubber joint rings are covered with details of requirements for tensile strength, elongation compression set before and after aging, swelling and water absorption

ZWS 197:1976
Wooden handles for tools and implements
Part 1: Wooden handles for brooms, hay-forks and rakes (including general requirements for other wooden handles for tools)
Price Code: Gr. 6
17 pages
Amended by MD 356: 1976
Endorsement of SABS 77: 1975
Reprinted 2012

Covers detailed requirements for one grade of wooden handles for brooms, hay-forks and rakes.

Part 2: Wooden handles for beater picks, mattocks and picks
Price Code: Gr. 3
7 pages
Replaces ZWS O11: 1969
Amended by MD 357: 1976
Endorsement of SABS 268: 1975
Reprinted 2012

Covers one grade of wooden handles for beater picks, mattocks and picks.

Part 3: Wooden handles for forks, shovels and spades
Price Code: Gr. 4
11 pages
Replaces ZWS O11: 1968
Amended by MD 358: 1976
Endorsement of SABS 269: 1975
Reprinted 2012

Covers one grade of wooden handles for forks, shovels and spades.

Part 4: Wooden handles for hammers
Price Code: Gr. 3
18 pages
Replaces ZWS O11: 1968
Amended by MD 359: 1976
Endorsement of SABS 292: 1975
Reprinted 2012

Covers one grade of wooden handles of different shapes for 14 types of hand-held hammer heads.

Part 5: Wooden handles for axes
Price Code: Gr. 3
8 pages
Amended by MD 360: 1976
Endorsement of SABS 573: 1975
Reprinted 2012

Covers one grade of wooden handles for axes

Part 6: Wooden handles for hatchets
Price Code: Gr. 4
6 pages
Amended by MD 361: 1976
Endorsement of SABS 672: 1975
Reprinted 2012
Covers one grade of wooden handles for hatchers.

Part 7: Wooden handles for universal type picks
Price Code: Gr. 3
8 pages
Replaces: ZWS O11: 1968
Amended by MD 362: 1976
Endorsement of SABS 692: 1975
Reprinted 2012

Covers two types of wooden handles for universal type picks

ZWS 198:2019
Fibre-cement sheets: Corrugated and flat
Price Code: Gr. 7
20 pages
Replaces: ZWS 198: 1992
Endorsement of SANS 685:1972
Covers straight corrugated, curved corrugated, flat and flat pressed fibre-cement sheets.

ZWS 199:1984
Non-refillable metallic containers up to 1.4 litres capacity and 85 mm diameter for liquefied or compressed non-flammable gases
Price Code: Gr.4
6 pages
Amended by MD 368: 1976: MD 503: 1984
Endorsement of BS 5188: 1975
Reprinted 2010

Covers the materials and constructional requirements for two groups, depending on size, of non refillable metallic containers for use solely with liquefied or compressed gases or mixtures thereof.

ZWS 201:1977
Liners and fluting for corrugated board
Price Code: Gr. 4
21 pages
Amended by MD 376: 1977
Endorsement of SABS 431: 1961
Reprinted 2012

Covers lining and fluting used in the manufacture of high quality board boxes and other corrugated paper products.

ZWS 203:2000
Wooden scaffold boards
Price Code: Gr. 7
26 pages
Reprinted 2010

Specifies requirements for the four types of wooden scaffold board.

ZWS 204:1977
External rendered finishes
Price Code: Loan
21 pages
Replaces ZWS CA3
Amended by MD 381: 1977
Endorsement of BS 5262: 1976
Reprinted 2012

Deals with renderings on all common backgrounds and the maintenance and repair of existing work.

ZWS 205:1977
Electric cable soldering sockets
Price Code: Gr. 4
9 pages
Amended by MD 382: 1977
Endorsement of BS 91: 1973
Reprinted 2014

Specifies the requirements for sockets of copper or copper alloy for connecting to each other or to apparatus. Suitable for conductors from 6 square millimeters up to 1 200 square millimeters.

ZWS 206:1977
Snap-on connectors
Price Code: Gr. 5
12 pages
Amended by MD 383: 1977
Endorsement of BS 5057: 1973
Reprinted 2014

Specifies in-line tabs with rectangular section and the corresponding receptacles. Dimensions, strength and electrical performance are detailed.

ZWS 207:1977
Calcium hypochlorite and chlorinated lime
Price Code: Gr. 6
18 pages
Replaces ZWS K29
Reprinted 2002

Covers two types (calcium hypochlorite and chlorinated lime) of bleaching compound.

ZWS 208:2010
The manufacture of finger-jointed structural timber
Price Code: Gr. 7
24 pages
Based on SABS 096: 1976
First revision 2015

Covers recommendations for the manufacture of finger-jointed structural timber.

ZWS 209:1992
Sickles
Price Code: Gr. 4
7 pages
Replaces: ZWS 209: 1977

Covers serrated edges sickles

ZWS 210:1977
Safety and proof testing of small arms
Part 1: Small arms using 9 mm parabellum cartridges
Price code: Gr. 4
7 pages
Reprinted 2010

Refers to guns using 9 mm parabellum. Covers safety aspects and proof testing. Does not cover the design or efficiency of the arms.

Part 2: Small arms using 12 – bore cartridges
Price code: Gr. 4
8 pages

Covers safety aspects and methods of proof testing.

ZWS 212:1978
Primary cells and batteries
Price Code: Gr. 7
27 pages
Based on SABS 180: 1975
Reprinted 2005

Covers primary cells and batteries of the leclanche type and the air-depolarized type for use in torches, radios and similar appliances. (for multi-cell dry batteries, see ZWS 291).

ZWS 214:1997
Wooden celling and paneling boards (Metric units)
Price Code: Gr. 6
21 pages
Endorsement of SABS 1039: 1975
Reprinted 2005

Covers three grades of profiled boards, planed or planed and sanded, manufactured from hardwood or softwood.

ZWS 215:1993
The design and manufacture of welded steel cylinders for low pressure services
Price Code: Gr. 7
23 pages
Replaces: ZWS 215: 1978

Covers fusion welded cylinders of capacity 0,5to 130 litres for the storage and conveyance of compressed gas, having a maximum service pressure of 7 mPa.

ZWS 216:1995
Glazed ceramic sanitary ware
Price Code: Gr. 6
23 pages
Replaces: ZWS 216: 1978
Based on SABS 497: 1991
Reprinted 2005

Covers wash-hand basins, pedestals, sinks, water closet pans, bidets, urinals and flushing cisterns made of ceramic materials.

ZWS 217:1978
Rubber, balata or plastics flat transmission belting of textiles construction for general use
Price code: Loan
9 pages
Replaces ZWS Z14 Part 6
Amended by MD 412: 1978
Endorsement of BS 351: 1976
Reprinted 2014

Specifies the minimum requirements for belting designed for power transmission under specified operating conditions.

ZWS 218:2012
The mechanical stress grading of softwood timber - Flexural method
Price code Gr. 5
18 pages
Replaces: ZWS 218:1978
Amended by MD 582: 1999
Reprinted 2010
Replaces ZWS 218:1999

Covers the requirements for the mechanical stress grading by the determination of stiffness in bending of solid timber (free from glued or other joints) derived from trees of the genus pinus grown in the Southern Africa.

ZWS 219:1993
Unplasticised polyvinyl chloride (UPVC) sewer and drain pipes and pipe fittings.
Price Code: Gr. 8
52 pages
Replaces: ZWS 219: 1978
Based on SABS 791: 1986
Amended by MD 652: 2003

Covers two types, normal and heavy, of unplasticized polyvinyl (UPVC) pipes of nominal sizes 110 to 630 mm and and one type of UPVC pipe fitting of nominal sizes 110 mm and 160 mm for sewer and drains.

ZWS 220:1993
Unplasticized polyvinyl chloride (UPVC) soil, waste and vent pipes and fittings
Price Code: Gr. 8
48 pages
Replaces: ZWS 220: 1978
Based on SABS 967: 1987
Amended by MD 653: 2003

Covers unplasticized polyvinyl chloride (UPVC) pipes and fittings of nominal sizes 40-160 mm intended for above-ground non-pressure applications for the conveyance of soil and waste water.

ZWS 222:2003
Draw-off taps and above-ground stopvalves for water services (screw-down pattern)
Price Code: Gr. 8
72 pages
Replaces: ZWS 222: 1978
Amended by md647:2003
Identical to BS 1010: Part 2: 1973
Reprinted 2004

Specifies requirements for screw-down pattern draw – off taps and stopvalves of ¼, 3/8, 1, 1¼. 1 ½ and 2 inch nominal sizes. Pillar taps of rising type are specified in ½, ¾ and 1 inch nominal sizes and non-rising type in ½ and ¾ inch nominal sizes only.

ZWS 223:1985
Restraining devices (safety belts) for occupants of adult build in motor vehicles
Price Code: Gr. 8
62 pages
Replaces: ZWS 223: 1982
Based on SABS 1080: 1983
Reprinted 2010

This standard is mandatory through Zimbabwe Government Roads and Road Traffic legislation. The specification applies to safety belts and restraint systems which are designed for separate use by person of adult build occupying forward-facing seats.

ZWS 224:1978
The handling, storage and disposal of pesticides and their containers
Price Code: Gr. 4
9 pages
Reprinted 1998
Reprinted 2004

This code of practice covers the handling, storage and disposal of pesticides and their containers on farms and smallholdings. For other instances, refer to ZWS 250.

ZWS 225:2018
Portable fire extinguishers
Price Code: Gr. 7
42 pages
Reprinted 2018

Covers portable fire extinguishers containing an extinguishant which is expelled by internal pressure. The extinguishant shall be one of the following: water, foam, dry powder, carbon dioxide. Details are given of mechanical design, extinguishants, marking, prototype tents and production tests.

ZWS 226:1978
Automotive V-belt drives
Price Code: Gr. 7
19 pages
Amended by MD 425: 1978
Endorsement of BS AU 150: 1973
Reprinted 2012

Covers endless V-belts and V-groove pulleys used for power transmission for automotive type engines in mobile and static applications.

ZWS 227:1978
Endless V-belt drives sections Y, Z, A, C and D
Price Code: Loan
49 pages
Amended by MD 426: 1978
Endorsement of BS 1440: 1971
Reprinted 2012
Reprinted 2013

Covers endless V-belts and V-grooved pulleys used for power transmission.

ZWS 228:1978
Endless wedge belt drives of SPZ, SPA, SPB and SPC sections
Price Code: Loan
32 pages
Amended by 427: 1978
Endorsement of BS 3790: 1973
Reprinted 2012

Covers endless wedge belts and their corresponding V-grooved pulleys, when used for power transmission.

ZWS 229:2006
General purpose textile-reinforced conveyor belting
Price Code: Gr. 7
24 pages
Revision of ZWS 229: 1979

Covers general requirements for textile-reinforced conveyor belting designed for use on flat or troughed idlers.

ZWS 231:2003
Boiler suits and work wear
Price Code: Gr. 8
25 pages
Based on SABS 434: 1998

Specifies general requirements of the material, cut, make and trim of boiler suits and separate jackets and pairs of trousers of work wear suits.

ZWS 232:1978
Crushed stone for surface treatment of roads
Price Code: Gr. 4
9 pages
ReplacesZWS A21: 1966
Reprinted 2004

Covers aggregate for use in surface dressings in the construction and maintenance of bituminous surfacing. Requirements are laid down for sizes, strength, gradation and methods of sampling and test.

ZWS 233:2025
Aggregates from natural sources for concrete
Price Code: Gr. 6
15 pages
Replaces ZWS 233:1997

This Zimbabwe Standard covers naturally occurring materials for use in the production of normal structural concrete. The materials may have been produced by crushing, washing and/or screening or other processes to ensure compliance with the requirements of this standard.

ZWS 234:2010
Terry toweling, towels and other terry weave articles
Price Code: Gr. 5
13 pages
Based on SABS 1401: Part 1 & 5: 1983
Replaces ZWS 234: 1978
Amended by MD 665:2010
Reprinted 2010

Covers the specific requirements of three types of cotton terry toweling fabric and articles in the form of bibs, face cloths napkins and towels.

ZWS 235:1978
Wax crayons
Price Code: Loan
14 pages
Replaces ZWS Z22
Amended by MD 432: 1978
Endorsement of SABS 244: 1978
Reprinted 2012

Covers wax crayons for drawing.

ZWS 236:1978
Safety glass for land transport
Price Code: Gr. 7
42 pages
Replaces ZWS R1
Based on BS 857: 1967
Reprinted 2000

Covers requirements and tests for flat and curved safety glass for land transport.

ZWS 237:1978
Testing water boreholes
Price Code: Gr. 6
26 pages
Amended by MD 437: 1978:
Endorsement of SABS 045: 1974
Reprinted 2012

Covers (a) the straightness and verticality of boreholes and (b) the determination of the yield from a borehole by means of a direct pumping test.

ZWS 238:1978
Hose clamps (worn drive type) for general purpose use
Price Code: Loan
3 pages
Amended by MD 438: 1978: MD 442: 1978
Endorsement of SABS 045: 1974

Covers the range of sizes and methods of test for worm drive hose clamps for general purpose use.

ZWS 239:1998
Protective helmets for equestrian activities
Price Code: Gr. 6
21 pages
Identical to EN 1384: 1997
Reprinted 2009

Specifies requirements for protective helmets, that may or may not have a peak, for people involved in equestrian activities.

ZWS 240:1999
Electric cables with extruded solid dielectric insulation for fixed installations (300/500 V to 1 900/ 3 300 V)
Price Code: Gr. 8
43 pages
Replaces ZWS 240: 1973
Based on SABS 150: 1970
Reprinted 2013

This Zimbabwe Standard covers the requirements for construction, materials, dimensions and electrical properties of single-core and multicore extruded solid dielectric insulated cables of rated operating voltage (Uo/U) in the range 300/500 V to 1 900/3 300 V, and intended for use in fixed installations. Specific requirements are given for a number of types of cables in common use but the standard covers any other types of cables that fall within the scope given in 1.1. The types for which specific requirements are given are the following:
a) single-core and multicore cables, armoured or unarmoured, with or without a metal sheath;
b) multicore flat cables with or without an earth continuity conductor;
c) multicore round cables with aluminium/PVC laminate and an earth continuity conductor;
d) multicore metal-braided octopus cables;
e) cables with concentric conductors;
f) cables with split concentric neutral and earth conductors;
g) panel/cubicle cables;
h) multicore sheathed harness type cables; and
i) insulated earth conductors.
This standard also covers cables for which one or more of the following properties are required:
a) reduced fire propagation;
b) reduced smoke emission;
c) reduced halogen emission;
d) freedom from halogen.

ZWS 241:1979
Screwed metal conduit and fittings for electrical wiring
Price Code: Gr. 7
40 pages
Replaces ZWS C16
Amended by MD 449: 1979
Endorsement of SABS 162: 1978
Reprinted 2013

Covers the requirements for screwed metal conduit of nominal sizes 16-63 mm inclusive, intended for the protection of electrical wiring. It also covers the requirements for metal fittings used in conjunction with conduit.

ZWS 242:1979
Part 1 Resin cored solders – Non corrosive (Metric units)
Price Code: Gr: 6
19 pages
Replaces: ZWS H 4: 1968
Endorsement of SANS 137: 1971
Amended by MD 452: 1979
Reprinted 2013

Covers soft solders in the form of wire or ribbon containing one or more cores of non-corrosive flux.

Part 2
Resin cored solders Highly activated (Metric units)
Price Code: Gr: 4
9 pages
Replaces: ZWS H 4: 1968
Endorsement of SABS 137: 1971
Amended by MD 452: 1979
Reprinted 2013

Covers soft solders in the form of wire or ribbon containing one or more cores of highly activated flux.

ZWS 243:1979
Cast iron pipes and pipe fittibgs for use above ground in drainage installation
Price Code: Gr. 8
46 pages
Identical to: SABS 746: 1976
Reprinted to include amendments
Reprinted 2008

Covers the requirements for low pressure cast-iron pipes and pipe fittings, intended for use above ground as soil water, waste water and vent pipes.

ZWS 244:1999
Corn starch
Price Code: Gr. 3
9 pages
Amended by MD 612: 1999
Replaces ZWS 244: 1979
Reprinted 2009

Covers three types of starch, viz, corn, textile, low viscosity and textile, high viscosity.

ZWS 247:1998
Cotton plain weaves, cotton jean and drill fabrics, cotton denim and cotton indigo denim
Price Code: Gr. 6
16 pages
Replace: ZWS 247: 1980
Amended by MD 383:1977
Reprinted 2008

This specification covers the following types of cloth, suitable for the manufacture of clothing.
1.Cotton Plain Weaves.
2.Cotton Jean and Drill Fabrics. Different constructions of cotton fabrics in twill and satin weaves, finished in the bleached or dyed state.
3.Cotton Denim. Three constructions of denim material and indigo denim.

ZWS 248:1983
Abrasive papers and cloths
Price Code: Loan
9 pages
Amended by MD 491: 1983
Endorsement of BS 871:1981
Reprinted 2013

Covers requirements for abrasive papers and cloths for both technical and general purpose products. Appendices cover grading, metal removal test, breaking strength, dimensions and recommendations for storage and ordering.

ZWS 249:1980
Ballasts for low pressure sodium vapour and high intensity discharge lamps and reference ballasts for low pressure sodium vapour and high intensity discharge lamps
Price Code: Gr: 6
27 pages
Amended by MD 463: 1980
Endorsement of SABS 1266/1267: 1979

Covers ballasts with insulation of at least class B for use with discharge lamps on a.c. supply voltages having a frequency of 50 Hz and for operation at ambient temperatures of -10 to + 40ºC.

Part 2
Reference ballasts for low pressure sodium vapour and high intensity discharge lamps
Price Code: Gr: 4
6 pages
Incorporates MD 463: 1980
Endorsement of SABS 1267: 1979

Covers the essential design features and operating characteristics of reference ballasts for high pressure mercury vapour, low pressure sodium vapour, and high pressure sodium vapour discharge.

ZWS 250:1980
Code of practice for the handing, storage and disposal of pesticides and used pesticides containers
Price Code: Gr. 6
14 pages
Amended by MD 518/2: 1996
Reprinted 2010

This code of practice covers the handling, storage and disposal of pesticides including veterinary remedies declared to be hazardous substances. It does not apply to pesticides used on farms or smallholdings. For such instances refer to ZWS 224.

ZWS 251:1980
Code of practice for fire extinguishing installations and equipment on premises - Sprinkler system
Price Code: Loan
16 pages
Amended by MD 466: 1980
Endorsement of BS 5306: Part 2: 1979
Reprinted 2012

Covers the provision of automatic sprinkler systems and installations in buildings, their essential supplies and maintenance.

ZWS 252:1980
Agricultural box shooks and box boards
Price Code: Gr. 7
17 pages
Amended by MD 467: 1980
Based on SABS 452: 1972
Reprinted 2009

Covers box shooks, box boards and assembled components derived from Zimbabwean grown or imported softwoods, poplar species and eucalyptus.

ZWS 253:1981
Softwood stubs for timber frames in buildings
Price Code: Gr. 5
13 pages
Based on SABS 1146: 1977

Covers one grade of softwood structural timber for use as concealed load-sharing members in domestic wall and partition constructions. Requirements are laid down for dimensions, finish, moisture content and gradient, density, packing and marking. Methods of test are covered by reference.

ZWS 254
Standardized specification for civil engineering construction
Based on SABS 1200
Complete set available in loose leaf file format (POA)

A: 1984 General
Price Code: Gr. 7
22 pages

AA: 2001 General (small works)
Price Code: Gr. 6
18 pages
Reprinted 2013

This Zimbabwe Standard covers the principles, responsibilities and requirements generally applicable to civil engineering construction and building work on small projects such as piling, drilling and sports field contracts and on ordinary buildings, stream crossings and similar isolated structures and on other minor works.
NOTE 1. Terminology used throughout the standardized specifications is explained because, in terms of the conditions of contract, the Employer, the Contractor and the Engineer have certain rights and obligations that can be exercised most equitably when all parties have a clear understanding of the operations that are covered by each item in the schedule of quantities. As this standard is applicable only to construction, on a prepared site or foundations of a structure or group of structures that fall within a single work classification (see Appendix A of ZWS 264: Part 1), only one item is scheduled to cover the cost of the Contractor's obligations of a preliminary and general nature.

AB: 2001 **Engineer's office**
Price Code: Gr. 6
7 pages
Reprinted 2012
Reprinted 2013

This specification covers the requirements for offices and the minimum associated facilities for the use of the Engineer on a Site. It covers a scheduled number of identical offices and allows for mobile and semi-mobile accommodation.

AD: 2001 **General (small dams)**
Price Code: Gr. 5
16 pages
Reprinted 2012
Reprinted 2013

This Zimbabwe Standard covers the general responsibilities and requirements applicable to the construction of small dams of height up to 15 m as defined by the International Commission on Large Dams (ICOLD).

AH: 2001 **General (structural)**
Price Code:
Gr. 6
16 pages

C: Site clearance
Price Code: Gr.
5
11 pages
Reprinted 2012
Reprinted 2013

This Zimbabwe Standard covers the removal of vegetation, boulders of size up to 0,15 m3 and surface obstructions and the demolition and removal of structures including their basements, if any, not directly associated with or incidental to any excavation.

D: 1984 Earthworks
Price Code: Gr. 8
33 pages
Reprinted 2012
Reprinted 2013

This Zimbabwe Standard covers earthworks carried out with heavy plant or light plant, or by hand for general excavations, short trenches, terracing and landscaping. It covers the requirements for siteworks, excavations for foundations for bridges, buildings and general structures. It deals with safety precautions, classification of materials, excavation, filling, compaction and finishing.

DA: 1984 **Earthworks (small works)**
Price Code: Gr. 8
25 pages
Reprinted 2013

This Zimbabwe Standard covers the minimum requirements for earthworks for limited terracing, such as may be required for a single sports field or an embankment round a medium-sized (approximately 10 M1) reservoir, and for short lengths of cut and fill operations (such as short or minor roads or railway sidings, and for the excavation, disposal, and backfilling of foundations for isolated structures such as bridges, buildings, pump sumps, manholes or catchpits. It covers safety and protection, classification of material based on the assumption that the magnitude of the work is such that only plant of moderate size, such as that specified in 3.1.2, is used, and moderate compaction.

DB: 2001 **Earthworks (pipe trenches)**
Price Code: Gr. 8
31 pages
Reprinted 2012
Reprinted 2013

This Zimbabwe Standard covers the earthworks for trenches for all types and sizes of pipes. It covers excavation, the preparation of a trench bottom, backfilling and the reinstatement of surfaces.

DE: 2001 Small earth dams
Price Code: Gr. 7
34 pages

DK: 2001 **Gabions and pitching**
Price Code: Gr. 6
20 pages
Reprinted 2012
Reprinted 2013

This Zimbabwe Standard covers the construction of gabions and stone pitching for the protection of earthworks against erosion. It covers gabion walls and aprons used as retaining walls, channel linings, and the like and it covers light to heavy pitching, with and without mortar.

DM: 2008 **Earthworks (roads, subgrade)**
Price Code: Gr 7
28 pages
Reprinted 2013

This specification covers:
a) the construction, up to and including the selected layer, of the subgrade in new roads,
b) reconstruction of existing roads, and
c) except where ZWS 254: ME forms part of the contract document, the construction of gravel road surfaces in urban and industrial areas.
It covers construction of cuts within the road prism and intersections, removal to spoil of unsuitable or excess material, compaction of the road-bed, construction and compaction of fills and the selected layer using material selected from cuts in the road prism or from approved borrow pits and finishing of cuts and fills, up to the stage where the subgrade is ready for the placing of the subbase or base (or both) and the shoulders.
NOTE. Subbase and base are dealt with in ZWS 254: ME and ZWS 254:MF respectively.

DN: 2001 **Earthworks (railway sidings)**
Price Code: Gr. 8
18 pages
Reprinted 2012
Reprinted 2013

G: 1984 Concrete (structural)
Price Code: Gr .8
45 pages
Reprinted 2013

This Zimbabwe Standard covers the requirements for structural concrete work (plain and reinforced) for civil engineering and building construction. It covers the basic materials, the plant and form work required, quality, manufacture, and curing of the concrete, tolerances in workmanship, tests and acceptance criteria, and the methods by which the finished structure is to be measured for the purpose of payment. This standard does not cover specialized aspects of structural concrete work, post and prestressed work, and piles, caissons, cylinders, and harbour and marine works.

GA:2001 Concrete (small works)
Price Code: Gr. 7
32 pages
Reprinted 2012
Reprinted 2013

This Zimbabwe Standard covers the requirements for concrete (plain and reinforced) for small works associated with pipelines, roads, railways, pump stations, etc. It covers the basic materials, the plant and formwork required, the quality, manufacture, and curing of concrete, tolerances in workmanship, testing, and the methods by which the finished structure is to be measured for the purposes of payment.

GB:2001 Concrete (ordinary buildings)
Price Code: Gr. 7
38 pages

This Zimbabwe Standard covers concrete, formwork, reinforcement, etc, for foundations, structures and wall panels of ordinary buildings of floor area up to about 2 000 m2 and having formed concrete surfaces that are normally to be plastered or painted if not otherwise hidden from view. The specification covers construction work that is intended to be controlled by means of a contract drawn up in terms of conventional conditions of contract for civil engineering work.

GE:2001 Precast concrete (structural)
Price Code Gr. 5
16 pages
Reprinted 2013

This Zimbabwe Standard covers the requirements for precast concrete that is reinforced normally or that is to be prestressed in accordance with the requirements of ZWS 254: GF.

GF: 2001 **Prestressed concrete**
Price Code: Gr. 7
31 pages
Reprinted 2013

This standard covers the requirements for prestressed concrete construction by means of pretensioning or post-tensioning.

H: 2001 Structural steelwork
Price Code: Gr. 7
29 pages
Reprinted 2013

This Zimbabwe standard covers structural steelwork generally for buildings and other structures, except cranes and road and rail bridges. It includes certain sundry items such as stairs, ladders, handrailing and open grid flooring.
NOTE. Should a specification be required for such sundry items only and not for structural steel, refer to ZWS 254: HA.
The specification does not cover roof and side cladding (see ZWS 254:HB) or corrosion protection of structural steelwork (see ZWS 254: HC)

HA:2001 Structural steelwork (sundry items)
Price Code: Gr. 5
15 pages
Reprinted 2013

This Zimbabwe Standard covers sundry items for structural steelworks such as prefabricated ladders, catwalks, open grid floors, handrails, etc. that are usually fabricated from commercial quality steel.

HB: 2001 **Cladding and sheeting**
PriceCode: Gr. 7
27 pages
Reprinted 2013

This specification covers the roofing and cladding of structures using profiled roof-sheeting and side cladding manufactured from steel, aluminium, fibre cement and glass-reinforced polyester.

HC:2001 Corrosion protection of structural steel work
PriceCode: Gr. 6
21 pages
Reprinted 2013

This Zimbabwe Standard covers the execution of work entailed in the corrosion protection of structural steelwork.

HE:2001 Structural aluminium work
PriceCode: Gr.6
17 pages
Reprinted 2012
Reprinted 2013

This Zimbabwe standard covers the manufacture, fabrication, assembly, and erection of structures using structural aluminium elements that have been designed in accordance with ZWS 160 and ZWS 254:HE.

L:2001 Medium pressure pipelines
Price Code: Gr. 7
Reprinted. 2013
37 pages

This standard covers the supply and installation of pipelines of diameter up to 1 000 mm, complete with ancillary works, for transporting water and sewage under working pressures of up to 2,5 MPa.

LB: 2001 Bedding (pipes)
Price Code: Gr. 6
22 pages
Reprinted 2013

This standard covers the bedding (bedding cradle and selected fill blanket) for buried pipes carrying fluids under pressure or gravity.

LC: 2001 Cable ducts
Price Code: Gr. 5
16 pages
Reprinted 2013

This Zimbabwe Standard specification covers the supply and the laying and bedding in trenches of pipes as ducts for the protection of telephone and electric power cables.

LD:2001 Sewers
Price Code: Gr. 7
30 pages
Reprinted 2013

This standard covers the general construction requirements for sewerage systems including connecting sewers, manholes, and the like, but excluding sewer rising mains, pump stations, treatment works, and ancillary works.

LE:2001 Stormwater drainage
Price Code: Gr. 6
17 pages
Reprinted 2013

This Zimbabwe Standard covers the construction of stormwater drainage systems and ancillary works. Other alternative stomwater drainage systems may be used if specified in the project specification and drawings.

LF:2001 Stand connections (water)
Price Code: Gr. 6
22 pages
Reprinted 2013

This Zimbabwe Standard specification covers the construction of connections from a water reticulation main to the boundaries of (or other specified points) individual stands. It covers the pipework, meters, and the making of the connections.
NOTE 1. Sewer connections are covered by ZWS 254: LD.

LG:2007 Pipe jacking
Price Code: Gr. 5
15 pages
Reprinted 2013

This specification covers insertion, by jacking, of pipelines of diameter not exceeding 3 m under roads, railways, and the like without disturbing the surface or interfering with the normal flow of traffic.

LK: 2007 Valves
Price Code: Gr. 4
8 pages

This specification contains requirements which, where relevant to this contract, shall apply to the supply, installation and testing of valves for use with raw, treated and potable water. Further requirements including their installation in, and testing together with pipelines are included in the specification for pipelines and all relevant requirements of that specification shall apply to valves except where otherwise specified in this specification. The valves specified are of the following types:
Stop valves
Check valves (non-return valves)
Control valves (pressure and flow)
Air valves
Fire hydrants

M: Roads (general)
Price Code: Gr. 6
39 pages

This Zimbabwe Standard covers definitions, materials, tolerances and testing applicable to the construction of the controlled layers and surfacing of urban and industrial roads.

ME:2007 Subbase
Price Code: Gr. 6
19 pages

This Zimbabwe Standard specification covers the requirements for subbase and gravel wearing courses for roads, shoulders, footways, and paved areas. It covers the procuring, furnishing, classification, placing, compaction, and finishing of approved soil, natural gravel, and processed gravel, and measurement for the purpose of payment

MF:2007 Base
Price Code: Gr. 6
19 pages

This Zimbabwe Standard covers the requirements for base for roads, shoulders, footways, and paved areas. It covers the procuring, furnishing, classification, placing, compaction and finishing

of approved natural gravel, crushed stone and waterbound macadam.

MFL:2007 Base (Light pavement structures)
Price Code: Gr. 6
18 pages

This Zimbabwe Standard covers the requirements for base for light pavement structures, shoulders, footways, and paved areas of category C and D in accordance with TRH 4 and category UC and UD in accordance with UTG 3. It covers the procuring, furnishing, classification, placing, compaction and finishing of approved natural gravel, stabilized gravel or crushed stone and waterbound macadam.

MG:2007 Bituminous surface treatment
Price Code: Gr. 7
28 pages

This Zimbabwe Standard covers the preparation and priming of a base and four types of bituminous surface treatment for roadways and other paved areas, namely:
a) double surface treatment, using 19,0 mm plus 9,5 mm aggregate, or 13,2 mm plus 6,7 mm aggregate;
b) bituminous surface treatment with aggregate and slurry seal, using 19,0 mm aggregate or 13,2 mm, aggregate;
c) single surface treatment, using 19,0 mm, 13,2 mm, 9,5 mm or 6,7 mm aggregate; and
d) sand seal bituminous surface treatment.

MH:2007 Asphalt base and surfacing
Price Code: Gr. 7
32 pages

This Zimbabwe Standard specification covers the priming of the sub-base or base and the construction of two types of hot-mix asphalt base and surfacing, namely:
a) continuously graded asphalt; and
b) gap-graded and open-graded asphalt which, in the case of surfacing, includes rolled-on pre-coated chips or a friction course of open-graded asphalt.

MJ:2007 Segmented paving
Price Code: Gr. 5
14 pages

This Zimbabwe Standard covers the paving of roads and other areas with precast concrete segmental blocks laid closely together, the joints between the units being filled with a jointing sand.

MK:2007 Kerbing and channeling
Price Code: Gr. 6
21 pages

This Zimbabwe Standard covers the construction of mountable, semi-mountable and barrier kerbing and channeling, as well as edging and chutes, that are precast or in situ by conventional methods or extruded in situ by means of special plant.

MM:2007 Ancilliary road works
Price Code: Gr.7
39 pages

This specification covers
a) The supply and installation of metal W-section guardrails for roads;
b) the supply and erection of permanent road signs alongside and over carriageways, ramps and cross roads;
c) the permanent marking of road surface with white or yellow painted lines and symbols and the supply and fixing or retro-reflective road studs.

ZWS 255:1994
Tyre reconditioning
Price Code: Gr. 7
26 pages
Replaces: ZWS 255: 1982
Amended by MD 507: 1994: MD 552: 1994
Reprinted 2006

Covers the minimum requirements for the precautions to be observed in thereconditioning of pneumatic tyres for passenger and commercial vehicles. Included the requirements of acceptance for reconditioning, limits of damage, repairs, processing, marking and inspection.

ZWS 257:2014
Sawn softwood timbers
Part 1: General requirement
Price Code: Gr. 7
31 pages
Based on SABS 1783: Part 1: 1997
Replaces ZWS 334: 1991 and ZWS 335: 1991
First reprint 2015 as ZWS 257.1
Incorporates MD 679:2014

Specifies requirements for visually, mechanically and proof-graded sawn softwood timber, for use as structural timber, brandering and battens, for frame wall construction and industrial purposes.

Part 2:2014 Stress-graded structural timber and timber for frame wall construction
Price Code: Gr. 6
7 pages
Based on SABS 1783: Part 2: 1997
Replaces ZWS 334: 1991 and ZWS 335: 1991
Amended by AMD 669:2011, MD 677:2014
First reprint 2015 as ZWS 257.2

Specifies requirements for three stress grades of visually graded structural timber and three stress grades of mechanically graded structural timber.

Part 3: Industrial grade timber
Price Code: Gr. 5
14 pages
Based on SABS 1783: Part 3: 1977
Replaces ZWS 336: 1991
First reprint 2015 as ZWS 257.3
Incorporates MD 676:2014

Specifies requirements for four grades of timber intended for industrial but not for structural use.

Part 4: Brandering and battens
Price Code: Gr. 6
19 pages
Based on SABS 1783: Part 4: 1997
First reprint 2015 as ZWS 257.4
Incorporates MD 675:2014

Specifies requirements for one grade of timber suitable for use as brandering and battens intended for being fixed against beams and joist in roofs for the attachment of ceilings and for the boxing in of leaves and for use as supports on roof trusses for the fixing of roof slates, tile, wooden shingles and thatch moisture and warpage resistance of lenses.

ZWS 257:Part 5-1:2022
Structural timber
Part 5-1: Stress-grade (Assessment)
Price Code: Gr. 7
10 pages

This part of ZWS 257-5 specifies procedures for sampling, testing and assessing characteristic values of structural properties for specific grades and sizes of sawn softwood and hardwood timber produced from unproven resources or by innovative grading methods to meet the stress-grade requirements of grades.

Part 5-2: Quality assurance of stress grading
Price Code: Gr. 7
9 pages

This part of ZWS 257-5 specifies procedures for sampling, testing and assessing characteristic values of structural properties for specific grades and sizes of sawn softwood and hardwood timber produced from unproven resources or by innovative grading methods to meet the stress-grade requirements of grades.

ZWS 258:Part 1:1982
Motor vehicle lighting and signaling equipment
Part 1: Side, rear, parking, marker and stop lamps and direction indicators.
Price Code: Gr. 5
10 pages
Amended by MD 478
Endorsement of BS AU 40: Part 1: 1963
Reprinted 2013

Covers lighting and signalling equipment for motor vehicles of all types including motor cycles etc. Requirements include the colour of the light, its intensity at various angles, resistance of lamps to vibration, corrosion, penetration of dust and moisture.

Part 2: Reflex reflectors for vehicles, including cycles
Price Code: Loan
12 pages
Amended by MD 492:1983
Endorsement of BS AU 40: Part 2:1965
Reprinted 2013

Specifies requirements for reflex reflecting devices for use on motor vehicles, their trailers and pedal cycles. Includes tests for the colour and intensity of the reflected light, resistance of water penetration, petrol's, oils, corrosion, heat and the adhesion of the mirror backing of reflectors.`

ZWS 259:1982
Short link chain for lifting purposes: General conditions of acceptance
Price Code: Loan
8 pages
Amended by MD 472:1982
Endorsement of ISO 1834:1980
Reprinted 2013

Specifies the general conditions of acceptance for electrically welded round steel short link chain for use on cranes, in chain slings and for use with chain hoists and other lifting appliances.

ZWS 260:1982
Short link chain for lifting purposes: Grade M (4), non-calibrated, for chain slings etc.
Price Code: Loan
8 pages
Amended by MD 473:1982
Endorsement of ISO 1835:1980
Reprinted 2013

Covers requirements for lifting chains, grade M (4), non-calibrated, for use on cranes, chain slings and for general lifting purposes. These are electrically welded rounded steel short link chains.

ZWS 261:1982
Short link chain for lifting purposes – Grade M (4), calibrated for chain hoists and other lifting appliances.
Price Code: Loan
9 pages
Amended by MD 474:1982
Endorsement of ISO 1836:1980
Reprinted 2013

Specifies requirements for lifting chains, grade M (4) calibrated for use as load chains hoists and similar appliances.

ZWS 262:1982
Short link chain for lifting purposes – Grade T (8); non-calibrated, for chain slings etc.
Price Code: Loan
9 pages
Amended by MD 475:1982
Endorsement of ISO 3076:1980
Reprinted 2013

Specifies requirements for lifting chains T (8), non-calibrated for use on cranes, in chain slings and for general lifting purposes. These are electrically welded round steel short link chains.

ZWS 263:1982
Short link chain for lifting purposes – Grade T (8), calibrated, for chains hoists and other lifting appliances
Price Code: Loan
9 pages
Amended by MD 476:1980
Endorsement of ISO 3077:1982
Reprinted 2013

Specifies requirements for lifting chains, grade T (8), accurately calibrated, for use as load chain hoists and similar appliances. These are electrically welded round steel short link chains.

ZWS 264:1984
Code of practice for use with standardized specifications for civil engineering construction and contract documents.
Based on SABS 0120
Complete set available in loose leaf file format (POA)

The various parts of this code explain the format and content of ZWS 254 and give guidance on the drafting of project specifications and other contract documents.

Part 1:1984 Format and contents
Priced Code: Gr. 8
28 pages
Reprinted 2004

This part of this Zimbabwe Standard Code of Practice covers the format and contents of project specifications, standardized specifications and particular specifications which, together with bills of quantities are required in the preparation of contract documents.
NOTE: a) This part of the code is virtually a specification for the writing of a good specification and the compilation of a contract document. The recommendations given in this part should be applied in:
i) the preparation of new specifications for civil engineering construction;

ii) the preparation of additional particular specifications; and
iii) the updating and amending of in-house specifications.
b) The format, style and sequence of clauses of a particular specification should be the same as those of the standardized specification.
c) The details of a standardized/particular specification are dealt with in Appendix A.
d) Unacceptable clauses that must not be included in a specification are given in Appendix B
e) The general contents of a contract document are given in Appendix C.
f) A schedule of standardized specifications and references to Chapter VII of ZCEQ is given in Appendix D.
g) A check list for the most effective use of ZWS 254 specifications and the supporting sections of the code is given in Appendix E.
h) A diagrammatic layout of the code and its use in civil engineering construction and contract documentation is given on page 5.
i) Although the standardized specifications and this code have been prepared for general use they are framed to be compatible with ZGCC [see C.1 (d)] and ZCEQ (see NOTE) in particular.
NOTE. Civil engineering quantities, the standard system of measurement of civil engineering quantities for Zimbabwe published by the Zimbabwe Institution of Engineers and referred to as ZCEQ.

0 – Introduction

Part 2: Project Specification
Price Code: Gr. 6
12 pages
Reprinted 2004

This part of the Zimbabwe Standard Code of Practice covers the preparation under various circumstances of the two portions of a project specification, namely Portion 1, which covers the description of the works and includes general matters affecting the project (see 3.1 of ZWS 264: Part 1:1984) and Portion 2, which covers variations and additions to the standardized specifications that form part of a contract (see 3.2 of ZWS 264: Part 1:1984). This section of this part of the code covers:
a) a means of establishing the status of the project specification in relation to other specifications in a contract document;
b) the requirements that have to be stated in Portion 1 in order to identify and locate the works; and
c) guidance on the preparation of Portion 2.
The succeeding sections of this part of the code cover details of essential, optional, and additional clauses that are (or may be) required in respect of each applicable standardized specification.

Part 3: Guidance for Design
Price Code: Gr. 5
7 pages
Reprinted 2004
Reprinted 2013

This section of this part of the Zimbabwe Standard covers an indication of the contents of the succeeding sections, the economic norms that are considered in design work and in the preparation and use of standardized specifications, responsibility for design, and matters relating to the site inspection. The sections in this part of the code that relate to the relevant standardized specifications cover, primarily, matters that should be dealt with by the project Engineer or the senior design Engineer, such as the preparation of designs, drawing, and other documents required for tender invitations and the instructions to the construction Engineer or the Contractor or both, as applicable, to proceed with the works. The said sections cover:
a) aspects of design that were assumed in the framing of the relevant standardized specifications; and
b) aspects of design that must be considered in the control of work executed in terms of the relevant standardized specification.
The sections referred to in 1.2 also give guidance on principles of design and give references to appropriate codes of practice and such other aids to designing (including designing for "turn-key" projects) as are relevant.

Part 4: Typical Bills of Quantities
Price Code: Gr. 5
12 pages
Reprinted 2004
Reprinted 2013

This part of the Zimbabwe Standard Code of Practice covers typical bills of quantities (see 5.3) relating to the work covered by standardized specifications. This section of this part of the code covers general guidance on the taking-off of quantities and the preparation of a bill of quantities and the subsequent sections contain typical bills of quantities.
NOTE 1. Reference should be made to the standard system of measurement Zimbabwe Civil Engineering Quantities (ZCEQ) (see ZWS 264: Part 1) for work classes and billed items that are not covered by a standardized specification.

Part 5: Contract Administration
PriceCode: Gr.6
16 pages
Reprinted 2013

This Zimbabwe Standard Code of Practice covers recommendations and suggestions intended to assist the Engineer and the Contractor in executing work covered by the standardized specifications and to assist them to work in harmony by promoting understanding of each other's problems. It is not a contractual instruction to anyone. This standard covers the contents of the succeeding sections and, to assist the Engineer in his/her administrative duties, it includes a discussion of methods used by contractors in arriving at tender prices.
NOTE 1. Because standardized specifications are regarded as primarily performance specifications, the succeeding sections in this part of the code draw attention to those clauses of the relevant specification that may warrant the issuing of instructions by the Contractor to his/her staff or by the Engineer regarding the method or methods of construction that should be adopted in order to ensure that the completed work will comply with the specification. Such instructions are intended for the guidance of construction hands, new staff, and staff in training.

A – General

Part 2: Project Specification
PriceCode: Gr.6
11 pages

This part of Zimbabwe Standard covers the general requirements for a civil engineering project specification.

Part 3: Guidance for Design
Price Code: Gr. 6
11pages

This part of the Zimbabwe Standard Code of Practice gives general guidance for the design of civil engineering works.

Part 4: Typical Bills of Quantities
Price Code: Gr. 5
5 pages

This part of the Zimbabwe Standard Code of Practice covers the general requirements for typical bills of quantities..
NOTE 1. For the information and guidance of the tenderer completing the bill, the preamble given below must be used.

Part 5: Contract Administration
Price Code: Gr. 5
6 pages
Reprinted 2013

C – Site Clearance

Part 2: Projection Specification
Price Code: Gr. 5
11 pages
Reprinted 2004

This Zimbabwe Standard covers the requirements for the project specification of site clearance.

Part 3: Guidance for Design
Price Code: Gr. 3
6 pages
Reprinted 2004

This Zimbabwe Standard gives guidance for the design for site clearance before civil engineering construction commences.

Part 4: Typical Bills of Quantities
Price Code: Gr. 4
4 pages
Reprinted 2004

This part of Zimbabwe Standard Code of Practice gives the requirements for typical bills of quantities for site clearance.
NOTE 1. See Clause 5 of ZWS 264: O: Part 4:1984.
Part 5: Contract Administration
Price Code: Gr. 5
5 pages
Reprinted 2004

This part of the Zimbabwe Standard Code of Practice covers the requirements for contract administration of site clearance.

D – Earthworks

Part 2: Projection Specification
Price Code: Gr. 6
11 pages

This part of the Zimbabwe Standard covers the requirements for the project specification of earthworks.

Part 3: Guidance for Design
Price Code: Gr. 5
8 pages

This part of the Zimbabwe Standard Code of Practice gives guidance for the design of earthworks.

Part 4: Typical Bills of Quantities
Price Code: Gr. 4
4 pages

This part of the Zimbabwe Standard Code of Practice covers a typical bill of quantities relating to earthworks.

Part 5: Contract Administration
Price Code: Gr. 6
9 pages

This part of the Zimbabwe Standard Code of Practice covers the requirements for contract administration of earthworks.

DA – Earthworks (Small works)

Part 2: Project Specification
Price Code: Gr. 6
6 pages

This part of the Zimbabwe Standard Code of Practice covers the requirements for project specification of earthworks (small works).

Part 3: Guidance for Design
Price Code: Gr. 3
3 pages
Reprinted 2004

This part of the Zimbabwe Standard Code of Practice gives guidance for the design of earthworks (small works).

Part 4: Typical Bills of Quantities
Price Code: Gr. 4
4 pages
Reprinted 2004
Reprinted 2013

This part of the Zimbabwe Standard Code of Practice covers typical bills of quantities (see 5.3) relating to earthworks (small works).

Part 5: Contract Administration
Price Code: Gr. 3
3 pages

This part of the Zimbabwe Standard Code of Practice gives the requirements for contract administration of earthworks (small works).

G – Concrete (Structural):1985

Part 2: Project Specification
Price Code: Gr. 8
19 pages
Reprinted 2004

This part of Zimbabwe Standard Code of Practice covers the requirements for the project specification of concrete (structural).

Part 3: Guidance for Design
Price Code: Gr. 6
13 pages

This part of Zimbabwe Standard Code of Practice gives general guidance for the design of concrete (structural).

Part 4: Typical Bills of Quantities
Price Code: Gr. 5
5 pages

Part 5: Contract Administration
Price Code: Gr. 7
14 pages

This part of the Zimbabwe Standard Code of Practice covers the requirements for contract administration of concrete (structural).

ZWS 265:2018
Open pack meat products
Price Code: Gr. 7
37 pages
Amended by MD 614:1999, MD 645:2002
Replaces ZWS S1:1966

Covers the manufacture, production, processing and treatment of open pack meat products of human consumption.

ZWS 266:1982
White chalks
PriceCode: Gr.4
9 pages
Reprinted 2000
Reprinted 2008
Reprinted 2013

Covers for hard and soft white chalks.

ZWS 267:1984
Coloured chalks and pastels
PriceCode: Gr.5
15 pages
Reprinted 2000
Reprinted 2009
Reprinted 2014

Covers requirements for coloured chalks (soft and hard), soft dustfree and pastels for use in schools.

ZWS 268:1992
Mechanical jacks
PriceCode: Gr.4
11 pages
Replaces ZWS 268:1982
Based on SABS 1126:1977
Reprinted 2009

Covers the constructional, marking and performance requirements for mechanical jacks of the scissors, body and bumper types for use with motor vehicles.

ZWS 270:1992
Filler metals for brazing
PriceCode: Gr.6
17 pages
Based on BS 1845:1984

Specifies a range of filler metals used for brazing and lays down requirements for quality control system at the manufacturer's works.

ZWS 271:1993
Intruder alarm systems in buildings
Price Code: Gr. 6
25 pages
Replaces ZWS 271:1983

Gives the general requirements for the installation and operation of intruder alarm systems with audible signalling and/or remote signaling.

ZWS 272:1987
Semi-flexible vinyl floor tiles
Price Code: Gr. 6
19 pages
Replaces 272:1982
Based on SABS 581:1977
Reprinted 2008
Reprinted 2010

Covers four thicknesses of semi-flexible floor tiles of compound vinyl plastic. Requirements are laid down for marbling, dimensions, resistance to indentation and impact, flexibility after aging, loss in mass after heating, chemical resistance and resistance to curling.

ZWS 273:1982
Luminaires – General requirements and tests
Price Code: Gr. 9
113 pages
Amended by MD 488:1982
Endorsement of BS 4533: Part 101:1981
Reprinted 2011

Specifies general requirements for the classification and marking of luminaires and for their mechanical construction and electrical construction together with related tests.

ZWS 274:1983
Single-phase induction motors
Price Code: Gr.7
54 pages
Amended by MD 497:1983
Endorsement of SABS 1189:1978
Reprinted 2011

Covers four types of single-phase alternating current induction motors with standard dimensions and frame sizes up to and including 100 for voltages up to and including 250V at a frequency of 50Hz.

ZWS 276:1993
Damp-proofing materials
Part 1: Bituminous damp-proofing materials
Price Code: Gr. 5
16 pages
Amended by MD 656:2004

Specifies the requirements for bituminous materials suitable for use in the construction of damp-proof courses.

Part 2: Sandwich membranes in floors
Price Code: Gr. 4
10 pages
Replaces ZWS A25: Part 2: 1972

Specifies requirements for and methods of application of materials suitable for use in the construction of damp-proof floors. The materials may be used in order to prevent capillary rise of moisture when applied between concrete slabs or on top of blinding screed which has been laid on a hard core.

Part 3: Polyethylene sheet for damp-proofing in walls and floors
Price Code: Gr. 4
11 pages
Replaces ZWS A25: Part 3:1972

Covers the requirements for two types of polyethylene sheet for use in damp-proof courses in walls and for the damp-proofing of floors and basemen

ZWS 277:1993
Non-metallic conduit
Part 1: Metric units
Price Code: Gr. 6
18 pages
Replaces ZWS C13:1969

Covers conduit and fittings manufactured from non-metallic materials, principally unplasticized polyvinyl chloride but applies also to conduit and fittings manufactured from any other non-metallic materials which meets with requirements of this specification. Sizes covered are 20 – 25 mm.

Part 2: Imperial units
PriceCode: Gr.4
8 pages

As above but imperial measurements still sometimes used in Zimbabwe. Sizes covered are ¾ and 1 inch.

ZWS 279:1995
Twist drills
Price Code: Gr.7
39 pages
Based on BS 328: Part 1: 1993
Reprinted 2009

Specifies requirements for dimensions, design, materials, hardness values and performance for twist drills made from high-speed steel with either parallel or Morse taper shanks.

ZWS 280: Part 1:1985
Lined polyvinyl chloride boots
Part 1: PVC moulded boots for general industrial purposes

This standard specifies requirements for boots moulded from polyvinyl chloride compounds for general industrial use. This standard does not specify the style of boot.

ZWS 280: Part 1:1985
Part 2: PVC moulded safety footwear
Price Code: Gr.4
16 pages
Based on BS 6159 and BS 1870 Part 3
Reprinted 2009

This standard specifies the requirements for two types of PVC moulded safety footwear:
a) footwear with safety toecaps and penetration resistant midsoles;
b) footwear with safety toecaps only.

ZWS 281:1985
Lined rubber gumboots
Part 1: Rubber gumboots for general purposes
Price Code: Gr.6
15 pages
Based on BS 5462: Parts 1 & 2:1984
Reprinted 2009

This part of the standard specifies the minimum requirements for two types of lined rubber safety boots.
a) boots with safety toecaps and protective midsoles.
b) boots with safety toecaps only.

ZWS 281:1985
Lined rubber gumboots
Part 2: Rubber gumboots for safety purposes
Price Code: Gr. 6
15 pages
Based on BS 5462: Parts 1 & 2:1984
Reprinted 2009

Part 2 specifies the requirements for two types of lined rubber safety boots: with safety toecaps and protective midsoles.

ZWS 282:1993
Open-end, ring and combination spanners
Price code: Gr. 6
18 pages
Based on SABS 1112: 1976

Covers the requirements for the material, dimensions, performance and finish of wrenches (spanners).

ZWS 283:1984
Stationary instantaneous electric water heaters
Price code: Loan
44 pages
Endorsement of BS 3456 Part 3 section 3.9 1979
Amended by MD 505: 1984
Reprinted 2012

Safety requirements for electric stationary instantaneous water heaters for heating water to a temperature below its boiling point. Covers sheathed and bare element types but does not include the electrode type.

ZWS 284:1994
Steel fencing materials
Price Code: Gr. 7
32 pages
Replaces: ZWS N5: 1971
Amended by MD 549: 1984
Reprinted 2000
Reprinted 2013

Covers barbed wire; fencing standards; droppers; galvanized wire; gateposts; gates and straining posts. Materials complying with this standard meet the requirements of the Zimbabwe Fencing Act.

ZWS 285:1986
Mild steel wire nails
Price code: Gr. 6
18 pages
Based on SABS 820: 1974
Reprinted 2012

Covers the requirements for wire and cut mild steel nails and tacks. The standard is partially comparable to BS 1202: 1974 but includes types of nails currently manufactured in Zimbabwe. It comprises general requirements, dimensions and tolerances, packing, sampling and methods of test.

ZWS 286:1985
Natural fibre ropes
Price Code: Gr. 6
14 pages
Amended by MD 531: 1989
Based on SABS 991: 1980
Reprinted 2009

Covers manila, sisal and cotton ropes of two grades and of 3 strand hawser (plain-laid) construction. Also gives requirements, packing, sampling and test methods.

ZWS 287:1998
Fibre-cement boards
Price code: Gr. 6
14 pages
Based on SABS 803: 1971
Reprinted 2008

Specifies the requirements for the flat unpressed and flat pressed boards manufactured from fibre-cement with acceptable additives. The boards may have either a smooth or a textured surface and are generally recommended for internal use. For external use reference shall be made to ZWS 198.

ZWS 288:1994
Ground granulated blast furnace slag for use with Portland cement
Price Code: Gr. 6
19 pages
Based on BS 6699:1992
Reprinted 2009

Specifies requirements for the composition and manufacture of ground granulated blast furnace slag (ggbs) for use in combination with Portland cement.

ZWS 289:1995
Cast iron wedge and double disk gate valves for general purposes
Price code: Gr. 5
19 pages
Based on BS 5150: 1974 and BS 4504
Reprinted 2007
Specifies requirements for flanged and screwed body end cast iron gate valves of the wedge and double disk types, copper alloy faced, resilient seated or of all iron construction for general purpose.

ZWS 290:1986
Electric luminaries: handlamps
Price Code: Gr. 5
16 pages
Identical to BS 4533: Section 102.8:1982 and IEC 598: Part 2: Section 8: 1981
Reprinted 2010

Specifies requirements for handlampsand similar portable hand-held luminaires for use with tungsten filament and tubular fluorescent lamps on supply voltages not exceeding 250 V. To be read in conjunction with ZWS 273.

ZWS 291:1986
Multi-cell dry batteries
Price Code: Gr. 5
13 pages
Reprinted 2009

Covers dry cell batteries for use with military and similar radio equipment. Includes designation of batteries, construction, electrical and physical requirements, packaging and testing.

ZWS 292:1986
Detergent-disinfectants (iodophors)
Price Code: Gr. 6
28 pages
Amended by MD 550: 1993
Reprinted 2001
Reprinted 2009

Covers both acidic and non-acidic detergent-disinfectants that contain an iodophor and compatible surface-active agent for use only on previously cleaned inanimate surfaces. Methods of test include stability, disinfecting efficacy, rinsing properties and cleaning efficiency.

ZWS 293:1986
Fusion welded steel air receivers
Price Code: Gr. 8
69 pages
Amended by MD 537: 1991
Based on BS 5169: 1975
Reprinted 2007

Species requirements for Class I, Class II, and Class III fusion welded steel air receives.

ZWS 294:1999
Woven polypropylene fertilizer bags
Price Code: Gr. 4
10 pages
Based on SABS CKS 632: 1990
Reprinted 2009

Covers requirements for 50 kg fertilizer bags, made from tubular, woven fabric of which polypropylene yarns are the major component and suitable for use for the handling, transportation and storage of fertilizer.

ZWS 295:1989
Salt cured and shade dried bovine hides
Price Code: Gr. 8
22 pages
Reprinted 2009

Specifies the requirements for bovine hides of both commercial and country origin cured by suspended shade drying; dry salting; wet salting without prior brining; or wet salting with prior brining.

ZWS 296:1987
Liquid carbon dioxide (industrial)
Price Code: Gr. 7
27 pages
Replaces: ZWS K19: 1969
Based on BS 4105: 1969
Reprinted 2009

Specifies three types of carbon dioxides for industrial use only. Does not cover carbon dioxide intended for medical use.

ZWS 297:2000
Mills balls
Price Code: Gr. 5
13 pages
Amended by MD 639: 2001
Reprinted 2020

Specifies requirements for mill balls: a) cast steel; b) unalloyed white cast iron; c) chromium white cast iron; nickel chromium white cast iron; e) manganese cast steel.

ZWS 298:1988
Detergent-disinfectants based on quaternary ammonium compounds
Price Code: Gr. 4
9 pages
Based on SABS 639: 1974
Reprinted 2000
Reprinted 2009

Covers two types (liquid or solid) of detergent-disinfectants that contain quaternary ammonium compound disinfectants and other chemical agents that are miscible with water and are intended for use on inanimate surfaces that are free from excessive dirt.

ZWS 299:1991
Moulded – case circuits – breakers
Price Code: Gr. 8
49 pages
Based on SABS 156: 1977

Covers single-pole and multi – pole air break circuit breakers, assembled as an integral unit in a supporting and in enclosing moulded case of insulting materials, for current ratings up to and including 1 000 A and alternative voltages up to and including 660 V.

ZWS 302:2012
Quaternary ammonium compound disinfectants
Price Code: Gr. 5
15 pages
Replaces ZWS K31
Reprinted 2009

Covers formulations based on quaternary ammonium compounds in liquid or in powder form for disinfecting inanimate surfaces.

ZWS 303:1993
Safety helmets for industrial use and for firemen
Price Code: Gr. 7
28 pages
Replaces: ZWS Z13: 1970
Amended by MD 574: 1997 MD 579 199
Based on SABS 397: 1983

Covers three types of safety helmets (with brim or peak) for protection against falling objects and electrical hazards such as may be encountered in industry during fire-fighting and rescue operations.

ZWS 305:1991
Pneumatic tyre valves
Price Code: Gr. 5
15 pages
Based on BS AU 50: Part 3: Section 1a, 2, 3 and 5

Covers all known pneumatic tyre valves manufactured locally and are capable of being adapted to cover any valve to be produced at any time in the future.

ZWS 308:1990
Mastic asphalt for roofing
Price Code: Gr. 5
14 pages
Replaces: ZWS A1: 1960

Covers mastic asphalt for roofing composed of fine ground limestone and coarse aggregate incorporating either (a) asphalt bitumen or (b) a blend of asphaltic bitumen and refined lake asphalt or (c) blends of bitumen (s), asphaltite and refined lake asphalt.

ZWS 309:1990
Mastic asphalt for flooring
Price Code: Gr. 5
14 pages
Replaces: ZWS A2: 1960

Covers mainly industrial flooring applications, but mastic asphalt that complies with this standard may also be used as a base coat to receive floor covering s such as wood block, parquet, vinyl, rubber, ceramic or stone as protection against rising damp.

ZWS 310:1990
Mastic asphalt for tanking
Price Code: Gr. 5
14 pages
Replaces: ZWS A3: 1960

Covers mastic for tanking composed of fine ground limestone and coarse aggregate incorporating either (a) bitumen or (b) blends of bitumen and refined lake asphalt or (c) blends of bitumens and asphaltite or blends of bitumens, asphaltite and refined lake asphalt.

ZWS 311:1990
Code of practice for application of mastic asphalt for roofing
Price Code: Gr. 4
9 pages
Replaces ZWS A1: 1960

Deals with the use of mastic as a roof covering, including situations designed to carry traffic. It also covers recommendations for the preparation of the base to which the mastic asphalt is applied and sets out the site practice. It includes recommendations concerning various accessory materials generally used in conjunction with mastic for roofing, including the use of mastic asphalt as waterproofing of roofs of reservoirs.

ZWS 313:1990
Code of practice for the application of mastic asphalt tanking
Price Code: Gr. 3
6 pages
Replaces: ZWS A3: 1960

Deals with the use of mastic asphalt for waterproofing concrete structures below ground level and tank linings, includes recommendations for the preparation of the base to which the mastic asphalt is applied and sets out the site practices.

ZWS 314:2014
Pre-constructional termite proofing
Price Code: Gr. 3
6 pages
Replaces: ZWS 314: 1973
Amended by MD 682
Reprinted 2013

Covers the application of chemicals to building sites as an aid to the proofing of buildings against subterranean termite attacks. It is not intended for the proofing of wooden structures in contact with the ground.

ZWS 315:2010
Concrete Pipes (non-pressure)
Price Code: Gr. 6
20 pages
Replaces: ZWS 315: 1973
Amended by MD 667:2010
Reprinted 2010

Covers non-pressure precast reinforced and unreinforced concrete circular pipes intended for the conveyance of storm water, sewage and water for irrigation.

ZWS 316:1997
Graphical symbols for electrical diagrams
Price Code: Gr. 9
113 pages
Based on IEC 617: Part 1 to 11
Reprinted 2006

Contains graphical symbols for use in typical electrotechnical diagrams. These symbols have been selected from Parts 2 to 8 and 11 of IEC 617 and are those that are more commonly used.

ZWS 317:1995
Lever arch files for stationery
Price Code: Gr. 5
12 pages
Identical to SABS CKS 368: 1973
Reprinted 2011

Covers lever arch files of the landscape and upright types for filing.

ZWS 319:1989
Sandlime bricks
Price Code: Gr. 4
9 pages
Replaces: ZWS A8: 1960
Based on BS 187: 1955 and SABS 285: 1951

Covers dimensions and strengths of three classes of bricks, viz, bricks for special purposes, face bricks and common bricks.

ZWS 320:2007
Cleaning services Industry – cleaning performance for commercial residential, industrial and health premises
Price Code: Gr. 7
22 pages
Based on SS 449: 02

Applies to the quality of cleaning services in commercial, residential, industrial and health premises.

ZWS 321:1982
Bitumen roofing felts
Price Code: Gr. 6
21 pages
Replaces: ZWS A30 1968
Based on SABS 92
Reprinted 2010

Covers three types of bituminous felt and two types of glass fibre tissue based felt classed according to mass per square metre.

ZWS 322:1993
Photovoltaic modules
Price Code: Gr. 7
44 pages
Based on CAN/CSA F380-M87
Reprinted 2011

Applies to terrestrial photovoltaic modules used for converting solar radiation into electric energy and is limited to mobile applications producing up to a maximum of 300 V.

ZWS 323:1991
Wheelchairs for the disabled
Price Code: Gr. 6
22 pages

Specifies the requirements for folding or collapsible wheel chairs for adults. Static performance, dynamic and life requirements are specified.

ZWS 324:1990
Slide fasteners
Price Code: Gr. 7
27 pages
Based on BS 3084

Give requirements for both metal and plastic zip fasteners supplied for use in industry and also when sold singly to the general public. Information on performance when related to end use is also shown for the labelling purposes.

ZWS 325:1993
Capillary and compression fittings for copper tubes
Price Code: Gr. 7
31 pages
Based on BS 864: Part 2: 1983
Reprinted 2010

Specifies requirements for capillaryfittings and compression fittings for use with copper tubes complying with tables W, X, Y and Z of ZWS.

ZWS 326: 1990
Copper tubes
Price Code: Gr. 5
13 pages
Reprinted 2004 to incorporate MD 544 and 546: 2004
Based on BS 2871: Part 1: 1971

Specifies requirements for copper tubes in the following four different conditions: annealed (O) copper tubes; half hard (1/2 H) copper tubes (See table X); half hard (1/2 H) copper tubes; and hard drawn (H) copper tubes.

ZWS 327:2002
Unplasticized polyvinyl chloride pressure pipes
Part 1: 2003 Components of pressure pipe systems- unplasticized poly(vinyl chloride) pressure pipe systems
Price Code: Gr. 9
58 pages
Replaces ZWS K21: 1971
Reprinted 2004 to incorporate MD 655: 2003
Amended: MD 663: 2009
Reprinted 1999

Specifies requirements for unplasticized poly (vinyl chloride) (PVC-U pipes and injection molded fittings intended for above-ground and below ground pressure applications for the conveyance of potable water in reticulation systems, and for other applications in which continuous temperatures in excess of 25 ºC are not encounted.

Part 2: 2002 Modified (vinyl chloride) PVC-M) pressure pipes systems
Price Code: Gr. 8
42 pages

Specifies requirements for modified unplasticized poly (vinyl chloride) (PVC) pipes (with integral joints that incorporate rubber sealing rings) and fittings (post-formed from pipe made of PVC-M) that are intended for above-ground and below-ground pressure applications for the conveyance of portable water in reticulation system and for other application in which continuous temperature n excess of 25 ºC are not encountered.

ZWS 329:1990
Code of practice for application of mastic asphalt flooring
Price Code: Gr. 4
8 pages
Replaces: ZWS A2: 1960
Reprinted 2010

Deals with the use of mastic asphalt as a floor covering on new or old worn concrete.

ZWS 330:1991
Storage of cereals and pulses
Part 1: Guide to control of attack by vertebrate and invertebrate animals
Price Code: Gr. 5
13 pages
Based on ISO 6322: part 3: 1981

Gives guidance on limiting accessibility of grain and pulses to birds, rodents and other pests which might feed on it.

Part 2: Guide to particular problems encountered in the storage of cereals and pulses
Price Code: Gr. 6
21 pages
Based on ISO 6322: part 1: 1981

Describes general considerations related to the problems of keeping cereals. Other aspects of the storage of cereals and pulses are dealt with in ZWS 330: Part 1 and ZWS 331.

ZWS 331:1991
Storage of cereals and pulses
Price Code: Gr. 5
14 pages
Based on ISO 6322: Part 2: 1981

Gives guidance on the choice of a method of storage of cereals and pulses and on the essential requirements for good storage according to the method chosen. Other aspects of the storage of cereals and pulses are dealt with in ZWS 330: Part 1 and 2.

ZWS 332: 2015
Labelling of food and feed that are and are not products of genetic modification
Price Code: Gr. 5
8 pages

Specifies the labeling and advertising of food and feed produced from genetic modification or consisting of or containing GMOs irrespective of whether the food/feed contains DNA or protein.

ZWS 333: 1974
Wood Screws
Price Code: Gr. 7
31 pages
Reprint of ZWS 10: 1974
Reprinted 2004

Specifies the requirements for slotted head wood screws manufactured to the dimensions specified.

ZWS 337:1991
Hydraulic jacks
Price Code: Gr. 4
10 pages
Based on SABS 1144: 1977
Reprinted 2004

Covers the requirements for the suggested dimensions, construction and performance of hydraulic jacks of the general industrial (bottle) and trolley (garage) types.

ZWS 338:1990
Concrete floor and wall tiles
Price Code: Gr. 3
12 pages
Based on BS 1197: Part 2: 1980 and SABS CKS 208: 1969

Specifies the requirements for dimensions, strength and workmanship of floor and wall tiles made with cement and aggregate.

ZWS 339:1991
Industrial leather hand protectors and leather protective clothing
Price Code: Gr. 7
25 pages
Replaces: ZWS Z17: 1971 (Partially)
Based on SABS 316: 1988

Covers materials and construction of industrial leather hand protectors (e.g. gloves) and leather protective clothing.

ZWS 341:2022
The Petroleum industry - The storage, transportation and use of small quantities of flammable petroleum liquids
Price Code: Gr. 9
48 pages
Replaces: ZWSCZ2: 1972
Reprinted 2004
Amended by MD 682:2014

This standards specifies requirements for storage and transportation of flammable petroleum products of quantities not exceeding 1000 litres for diesel and illuminating paraffin and quantities not exceeding 200 litres for petrol/ ethanol blends.

ZWS 342:1977
Earthenware drain and sewer pipes and fittings
Price Code: Gr. 7
40 pages
Replaces: ZWS A16: 1973
Reprinted 2011

Covers vitrified clay pipes suitable for jointing by the following methods: mortar caulking; rolling rubber ring; bitumen run; reformed factory-applied; plain-end pipe; slip seal rubber. Jointing methods are not covered in the specification.

ZWS 343:1991
Supersulphated cement
Price Code: Gr. 4
9 pages
Based on BS 4248: 1974

Specifies requirements for the composition, manufacture, sampling and testing of supersulphated cement.

ZWS 344:1999
Insecticide in the form of one percent or three percent endosulfan granules
Price Code: Gr. 4
12 pages
Replaces ZWS 230: 1978
Reprinted2010

Covers a granular type of insecticide consisting of quartzitic sand to which is bonded a finely-ground concentrate of endosulfan by means of an emulsifier to which is added a stabilizer.

ZWS 345:1991
Pesticide in the form of five percent disulfoton granules
Price Code: Gr. 5
14 pages
Replaces: ZWS 230: Pat 2: 1986

Covers a granular type of pesticide consisting of crushed brick pumice, Fuller's earth, attapulgite granules or any other suitable carrier to which is adsorbed and absorbed a concentrate of disulfoton.

ZWS 346:1991
Insecticide in the form of two and a half percent trichlorfon granules
Price Code: Gr. 4
9 pages
Replaces ZWS 230 Part 3: 1986

Covers granular type of insecticide consisting of crushed brick granules, dolomite, sand or any other suitable carrier to which is adsorbed and absorbed a concentrate of trichlorfon. Applies to insecticides for the treatment of maize against stalk borer.

ZWS 347:1991
Handheld blowpipes, mixers and nozzles, using fuel gas and oxygen, for gas welding, cutting and related processes
Price Code: Gr. 7
30 pages
Based on BS 6503: 1984

Specifies materials, construction, safety, performance and test requirements for handled blowpipes and nozzles.

ZWS 348:2007
The manufacture of soft drinks and soft drink concentrates
Price Code: Gr. 10
65 pages
Second revision of ZWS 348: 1972
Based on SANS 449: 1985
Replaces: ZWS S9: 1967
Amended MD 613: 1999: MD 642: 2002

This Zimbabwe Standard covers the description, treatment, testing, bottling, packaging and labelling of soft drinks and soft drink concentrates.

ZWS 350:1992
The protection of dwelling houses against lightning
Price Code: Gr. 8
62 pages
Replaces: ZWS CC2: 1973
Based on SABS 03A: 1976

Provides authoritative guidance on the principles and practice which experience has shown to be of major importance in the protection of dwelling houses and similar buildings against lightning.

ZWS 351:1993
The protection of structures against lightning
Price Code: Gr. 9
123 pages
Replaces: ZWS CC2: 1973
Based on SABS 03: 1985

Covers the installation of a lightning protection system and sets out the principles. Requirements for air terminal systems, down conductor, earthing and materials are given.

ZWS 352:2002
Fruit squashes and fruit cordials (fruit syrups) and their bases
Price Code: Gr. 6
16 pages
Amended by MD 615: 1999, MD 644: 2002
Replaces: CAS S21:1969
Reprinted 2011

Covers the manufacture of fruit squashes and fruit cordials (fruit syrups) and their bases.

ZWS 354:1978
Fluorescent lamp ballasts
Price Code: Gr. 5
13 pages
Partially superseded by ZWS 127: 1978
Reprinted 2011

Covers the features and operating characteristics of reference ballasts for florescent lamps for use on a.c supplies at a frequency of 50 Hz.

ZWS 355:1995
Universal undercoating: White
Price Code: Gr. 4
10 pages
Amended by MD 553: 1994
Replaces: ZWS K9: 1961
Reprinted 2011

Covers white undercoating for air-drying protective and decorative paints for use on primed steel and timber and onsealed and primed masonry wall board, compressed fibre board and other constructional and finishing materials in building.

ZWS 356:2025
High gloss synthetic enamel paint (alkyd type)
Price Code: Gr. 4
6 pages
Replaces: ZWS 356:1995
First reprint 2011, as ZWS 356
Third revision 2025, as ZWS 356

This Zimbabwe Standard covers ready mixed high gloss synthetic resin based enamel paint for interior and exterior use as a finishing coat on metal, wood, sealed plaster walls and concrete surfaces, composition board and similar materials that have been primed or painted previously.

ZWS 357:1993
Emulsion paints for exterior use
Price Code: Gr. 4
14 pages
Amended by MD 567: 1995
Replaces: ZWS K13: 1968
Based o SABS 634: 1972

Covers emulsion paints based on synthetic polymers primarily intended for exterior use on plaster, fibre cement or other similar porous surfaces or on surfaces previously painted with compatible emulsion paint.

ZWS 359:1995
Domestic and industrial security grill swing-type gates
Price Code: Gr. 4
7 pages
Reprinted 2011

Covers requirements for both single and double security grill swing-type gates and their accessories for domestic and industrial application.

ZWS 360:1993
Self-supporting plastics containers of nominal capacities 5 to 220 litres
Price Code: Gr. 7
39 pages
Amended by MD 577: 1997
Based on SABS 1176: 1981

Covers self-supporting containers made of plastics materials, of nominal capacities 5 to 220 litres, suitable for the storage and transportation of commodities. Also covers self supporting containers of maximum nominal capacity 10 litres for reserve fuel for motor vehicles.

ZWS 361:1968
Carbon paper
Price Code: Gr. 5
13 pages
Replaces: ZWS X1: 1968
Based on SABS 652: 1961

Covers three types of typewriter carbon paper and two types of pencil carbon paper.

ZWS 362:1994
Aluminum tubes for irrigation purposes
Price Code: Gr. 4
12 pages
Based on ASAE S263.2: 1992 and BS 1474: 1987
Reprinted 2011

Specifies minimum requirements, design, manufacture and testing of aluminum tubes for use in irrigation tubing systems where operational pressure does not exceed 1 000 kPa.

ZWS 363:1996
Irrigation equipment – irrigation sprayers and rotating sprinklers
Price Code: Gr. 7
37 pages
Based on ISO 7749: Part 1: 1986: ISO 7749: Part 2: 1990 and ISO 8026: 1985

Covers irrigation equipment, irrigation sprayers and rotating sprinklers.

ZWS 365:1993
Whole spices: Determination of extraneous matter content
Price Code: Gr. 3
6 pages
Equivalent to ISO 927: 1982

Describes a method for determining the presence of foreign substances in whole spices.

ZWS 366:1993
Spices and condiments: Determination of total ash
Price Code: Gr. 4
7 pages
Equivalent to ISO 928: 1980

Describes a method for the determination of total ash from spices and condiments.

ZWS 367:1993
Spices and condiments: Determination of water - insoluble ash
Price Code: Gr. 3
6 pages
Equivalent to ISO 929: 1980

Describes a method for determination of water-insoluble ash from spices and condiments.

ZWS 368:1993
Spices and condiments: Determination of moisture content (Entrainment method)
Price Code: Gr. 4
6 pages
Equivalent to ISO 939: 1980

Describes a test method for the determination of the moisture content of spices and condiments.

ZWS 369:1993
Spices and condiments: Determination of alcohol-soluble extract
Price Code: Gr .3
6 pages
Equivalent to ISO 940: 1979

Specifies a method for determination of alcohol-soluble extract from spices and condiments.

ZWS 370:1993
Spices and condiments: Determination of cold water-soluble extract
Price Code: Gr. 3
6 pages
Equivalent to ISO 941: 1980

Specifies a method for the determination of cold water-soluble extract in spices and condiments.

ZWS 371:1993
Method of sampling spices and condiments
Price Code: Gr. 4
7 pages
Equivalent to ISO 948: 1980

Specifies a method of sampling spices and condiments.

ZWS 372:1993
Spices and condiments: Preparation of a ground sample for analysis
Price Code: Gr. 2
4 pages
Equivalent to ISO 2825: 1981

Specifies a method of preparing a groundsample of spices or condiments for analysis, from a laboratory sample obtained by the method specified in ZWS 371.

ZWS 373:1993
Agricultural food products: Determination of crude fibre content – General method
Price Code: Gr. 6
22 pages
Equivalent to ISO 5498: 1981

Specifies a conventional method for the determination of crude fibre content of agricultural food products. Method is based on the Weende method which involves acid treatment followed by alkali treatment.

ZWS 374:1993
Black pepper and white pepper, whole or ground: Determination of piperine content - Spectrophotometric method
Price Code: Gr. 3
7 pages
Equivalent to ISO 5564: 1962

Specifies a spectrophotometric method for the determination of the piperine content of black or white pepper (*Piper nigrumL*), in whole or ground from. The test method determines the quantity of pungent compound (piperine) and its analogues in the product.

ZWS 375:1993
Agricultural food products: Determination of crude fibre content – Modified Scharrer method
Price Code: Gr. 4
11 pages
Equivalent to ISO 6541: 1981

Specifies a conventional method for the determination of the crude fibre content of agricultural food products. Method is applicable to cereals and cereal products as well as to certain products containing less than 1 % of crude fibre, for example yeast.

ZWS 376:1993
Nomenclature for spices and condiments: First list
Price Code: Gr. 4
11 pages
Based on ISO 678
Reprinted 2013

A list of spices and condiments together with their botanical names, their common English names and names of parts used in the spices or condiments are given.

ZWS 377:1995
Curry powder
Price Code: Gr. 4
8 pages
Based on ISO 2253: 1986
Amended by MD 609: 1999

Specifies minimum requirements for curry powder which is used as a flavouring material in the preparation of foods.

ZWS 378:1993
Spices and condiments: Determination of acid-insoluble ash
Price Code: Gr. 3
6 pages
Equivalent to ISO 930: 1980

Specifies a method for the determination of acid-insoluble ash from spices and condiments.

ZWS 379:1995
Ginger: whole, in pieces or ground
Price Code: Gr. 5
13 pages
Amended by MD 616: 1999
Based on ISO 1003: 1980
Reprinted 2013

Specifies requirements for ginger (*Zingiber officianale Roscoe*) whole, in pieces or ground.

ZWS 380:1995
Dehydrated garlic
Price Code: Gr. 5
12 pages
Amended by MD 610: 1999
Equivalent to ISO 5560: 1983

Specifies requirements for dehydrated garlic in various commercial forms.

ZWS 381:1996
Part 1: Black pepper
Specifies requirements for black pepper (*Piper nigrum Linnaeus*), whole or ground
Price Code: Gr. 6
17 pages
Amended by MD 617: 1999
Identical to ISO 959: Part 1: 1988
Reprinted 2009

Specifies requirements for black pepper (***Piper nigrum Linnaeus***) whole or ground.

Part 2: White pepper
Specifies requirements for white pepper (*Piper nigrum Linnaeus*) whole or ground at the following commercial stages semi processed (SP) pepper, processed (P) pepper
Price Code: Gr. 5
14 pages
Amended by MD 618: 1999
Equivalent to ISO 959: Part 2: 1988

Specifies requirements for white pepper (*Piper nigrum Linnaeus)* whole or ground, at the following commercial stages sem processed (SP) pepper, processed (P) pepper.

ZWS 382:1993
Spices and condiments: Determination of filth
Price Code: Gr. 5
13 pages
Equivalent to ISO 1208: 1982

Specifies a method for the quantitative determination of mineral matter (sand, soil) and matter of animal origin (insect fragments, rodents hairs and excreta) in spices and condiments.

ZWS 383:1993
Spices and condiments: Determination of non-volatile ether extract
Price Code: Gr. 3
6 pages
Equivalent to ISO 1108: 1992

Specifies a method for determining the whole of the non-volatile substances extracted by diethyl- ether.

ZWS 384:1993
Spices and condiments: determination of volatile oil content
Price Code: Gr. 4
11 pages
Equivalent to ISO 6571: 1984

Specifies a method for the determination of the volatile oil content of spices, condiments and herbs.

ZWS 385:1993
Spices and condiments - Determination of volatile organic Sulphur Compounds
Price Code: Gr. 4
7 pages

Specifies a method for determination of volatile organic sulfur compounds in dehydrated garlic.

ZWS 386: 1993
Aerials for the reception of sound and television broadcasting in the frequency range 30 MHz to 1 GHz: Electrical and mechanical characteristics
Price Code: Gr. 4
9 pages
Based on BS 5640: Part 1: 1978

Covers linearly polarized receiving aerials for domestic use. Also defines and specifies the essential electrical and mechanical properties of aerials for the reception of sound and television broadcasting.

ZWS 387: 1993
Aerials of the reception of sound and television broadcasting in the frequency range 30 MHz to 1 GHz: Methods of measurements of electrical performance parameters
Price Code: Gr. 6
17 pages
Based on BS 5640: Part 2: 1978

Covers linearly polarized aerials for domestic use. Also specifies the conditions and methods of measurement of electrical performance parameters of aerials for the reception of sand and television broadcasting.

ZWS 390:1995
Soya beans
Price Code: Gr. 4
11 pages
Reprinted 2013

Specifies the requirements for soya beans suitable for human consumption.

ZWS 392:1995
Sunflower seeds
Price Code: Gr. 4
9 pages
Based on Grain Marketing Act (Chapter 113) and Grain Marketing (Sunflower) Rules 1993

Specifies minimum requirements for sunflower seeds (Helianthus annus).

ZWS 394:1993
Golden syrup, flavoured syrup and treacle
Price Code: Gr. 4
10 pages
Amended by MD 565: 1994, MD 620: 1999
Replaces: ZWS S29: 1970

Specifies physical and chemical requirements as well as containers and packaging.

ZWS 395: 1993
Hearing protectors: Ear-plugs
Price Code: Gr. 4
9 pages
Reprinted 2012

Covers the constructional and chemical requirements of ear plugs intended for use as hearing protectors.

ZWS 396:1994
Orange juice preserved exclusively by physical means
Price Code: Gr. 4
9 pages
Amended by MD 585: 1999
Based on Codex standard 45: 1981
Reprinted 2012

Covers unfermented orange juice intended for direct consumption obtained by a mechanical process from the endocarp of sound ripe oranges preserved exclusively by physical means.

ZWS 397:1994
Pineapple juice preserved exclusively by physical means
Price Code: Gr. 4
9 pages
Amended by MD 592: 1999
Based on Codex standard 85: 1981
Reprinted 2012

Covers unfermented pineapple juice, intended for direct consumption, obtained by a mechanical process from the flesh or parts thereof if sound, ripe pineapples preserved exclusively by physical means.

ZWS 398:1999
Apple juice preserved exclusively by physical means
Price Code: Gr. 4
8 pages
Amended by MD 591: 1999
Based on Codex standard 46: 1981
Reprinted 2011
Covers unfermented grape juice, obtained by mechanical process from sound, ripe grapes preserved exclusively by physical means.

ZWS 399:1999
Grape juice preserved exclusively by physical means
Price Code: Gr. 4
8 pages
Amended by MD 590: 1999
Based on Codex standard 82: 1981
Reprinted 2011

Covers unfermented grape juice, obtained by mechanical process from sound, ripe grapes preserved exclusively by physical means.

ZWS 400:2024
Code of practice for electrical wiring of premises (SAZ Wiring Rules)
Price Code: Gr. 12
166 pages
First published 1964, as CC1,
First revision 2005, as ZWS 400.
Second revision 2024, as ZWS 400

This Zimbabwe Code of Practice is designed to ensure safety in the utilization of electricity in or on premises and covers the design, selection, erection, inspection and testing of electrical installations. In order not to increase the content of these Rules beyond a convenient size, this edition of the Rules applies to installations in common use where the design current of the installation does not exceed 100 A per phase. Where the design current exceeds 100 A, or where installations of a special character not covered in these Rules exist, the designer and the installer should ensure that the installation, in addition to these Rules, complies with the latest edition of the BS 7671 (IEE Wiring Regulations).This will require the specialist advice of a person who has the appropriate education,

training and experience and has an adequate knowledge and understanding of BS 7671 (IEE Wiring Regulations) to design the particular installation. These Rules apply only to extra-low and low voltage installations and to supplies to discharge lamps. These Rules assume a maximum supply voltage variation of +/- 6% at the Electricity Undertaker's low voltage terminals. At the date of publication, this is the voltage variation declared by the Electricity Undertaker on low voltage supplies. Installations connected to supplies with voltage variations greater than this are beyond the scope of these Rules but the Rules may be followed where applicable. These Rules apply to all types of installations unless otherwise specified in relevant statutory instruments. A list of such statutory instruments is given in the Preface of these Rules. These Rules apply whether the supply of electricity is from an Electricity Undertaker or any other external source or from a private generating plant.

Note 1. These Rules do not specify any electrical equipment used in the wiring of premises. Such equipment is specified in various Zimbabwe Standards and other standards which are referred to in the Preface. It is recommended that equipment used should comply with a recognized Standard.

Note 2. Only established materials, equipment and methods are considered but it is not intended to discourage invention or to exclude other materials, equipment and methods affording at least an equivalent degree of safety, which may be developed in the future.

ZWS 401:1993
Paints: Determination of volatile content
Price Code: Gr. 2
4 pages
Replaces: ZWS K15 Part 2: 1966

Test method for determining the volatile content of paint at 105 +/- 2 ºC.

ZWS 405:1993
Paints: Lieberman-Storch test for rosin derivatives in paint
Price Code: Gr. 2
4 pages
Replaces: ZWS K15: Part 5: 1966

Specifies the Lieberman-Storch test method for determining the content of rosin and rosin derivatives in paint.

ZWS 406:1993
Paints: Determination of daylight 45º, 0º luminous directional reflectance of surface coatings and pigments
Price Code: Gr. 3
5 pages
Replaces: ZWS K15: Part 6: 1966

Specifies a test method for determining the daylight 45º, 0º luminous directional reflectance of surface coating and pigment.

ZWS 407:1993
Paints: Coarse skins and particles in emulsion paints
Price Code: Gr. 2
4 pages
Replaces: ZWS K15: Part 7: 1966

Test method for determining coarse skins and particles in paints.

ZWS 408:1993
Paints: Determination of flexibility of paints films
Price Code: Gr. 3
5 pages
Replaces: ZWS K15: Part 8: 1996
Based on SABS method 145: 1975

Test method to assess the flexibility of paint films.

ZWS 410:1993
Paints: Resistance to wet abrasion of emulsion paints
Price Code: Gr. 3
5 pages
Replaces: ZWS K15 Part 10: 1966
Based on SABS Method 175: 1975

Test method for assessing the resistance of emulsion paints to wet abrasion.

ZWS 411:1993
Paints: Light fastness and resistance to exposure
Price Code: Gr. 2
4 pages
Replaces: ZWS K15: Part 11: 1966

Test method for determining ability of paints to withstand exposure to light and outdoor atmospheric conditions.

ZWS 414:1996
Paints – Determination of aluminum metal content of aluminum paint
Price Code: Gr. 4
5 pages
Replaces: ZWS K15: Parts 13 and 14: 1967
Based on SABS 682: 1972
Reprinted 2011

Specifies the method of determining aluminum content of aluminum paint.

ZWS 417:1996
Paints- Determination of leafing value of aluminum paint
Price Code: Gr. 4
5 pages
Replaces: ZWS K15: Part 17: 1967
Based on ISO1247: 1974, SABS 1214: 1984
Reprinted 2011

Specifies the method of determining the leafing value of aluminum paint.

ZWS 418:1996
Paints and varnishes – Determination for viscosity by means of an efflux cup
Price Code: Gr. 4
7 pages
Identical to SABS Method 125: 1995
Reprinted 2011

Specifies the determination of the viscosity of Newtonian or near-Newtonian liquids with an efflux cup.

ZWS 420:1993
Paints-Pre-treatment of metal test panel –Abrading
Price Code: Gr. 3
5 pages
Replaces: ZWS K15: Part 20: 1967

Specifies the method of pre-treating metal test panels for use during testing of paints.

ZWS 421:1993
Paints: Consistency of paints measured by means of a Krebs-stormer viscometer (without stroboscope)
Price Code: Gr. 3
6 pages
Replaces: ZWS K15: Part 15: Part 21: 1967

Specifies a method of measuring the consistency of paints using Krebs-stormer viscometer without stroboscope.

ZWS 422:1993
Paints: Consistency of paints measured by means of Krebs-stormer viscometer (with stroboscope)
Price Code: Gr. 3
6 pages
Replaces: ZWS K!%: Part 22: 1967

Specifies a method of measuring the consistency of paints by means of a Krebs-stomer viscometer with stroboscope.

ZWS 423:2005
The installation of glazing in buildings
Price Code: Gr 8
91 pages
Based on SABS 0137: 2002

Covers methods of glazing and the fixing of glazing materials normally used in buildings.

ZWS 424:1993
Paints: Determination of mass per litre and specific gravity
Price Code: Gr. 3
5 pages
Replaces: ZWS K15: Part 24: 1971
Based on SABS Method 80: 1975

Specifies a method of determining mass per litre and specific gravity of paints.

ZWS 425:1993
Paints: Wet hiding power
Price Code: Gr. 3
6 pages
Replaces: ZWS K15: Part 25: 1971
Equivalent to SABS Method 464: 1975

Test method for determining the wet hiding power of paints. Includes a note for the use of the method for water based paints.

ZWS 426:1993
Paints: Brushing properties of paints
Price Code: Gr. 2
4 pages
Replaces: ZWS K15: Part 26: 1971
Equivalent to SABS Method 42: 1975

Specifies a test method for assessing the brushing properties of paints.

ZWS 428:1996
Paints-Spraying properties of paints
Price Code: Gr. 2
4 pages
Replaces: ZWS K15: Part 28: 1977
Based on SABS Method 44: 1975
Reprinted 2011

Specifies a method for determining the spraying properties of paints.

ZWS 429:1993
Paints: Fineness of grind of paints and pastes
Price Code: Gr. 3
5 pages
Replaces: ZWS K15: Part 29: 1971
Equivalent to SABS Method 53: 1975

Specifies a method for assessing the fineness of grid of paints and pastes

ZWS 430:1993
Paints: Drying time of paint films
Price Code: Gr.3
5 pages
Replaces: ZWS K15: Part 30: 1971
Amended by MD 548: 1993
Based on SABS Method 148: 1975

Test method for assessing the drying time of paints under laboratory conditions.

ZWS 431:1993
Paints: Sixty-degree specular reflection of paint films
Price Code: Gr. 2
4 pages
Replaces: ZWS K15: Part 31: 1971

Test method for determining the sixty-degree specular reflection of paint films using glossmeter.

ZWS 432:1993
Relative density of liquids
Price Code: Gr. 3
5 pages
Replaces: ZWS K15: Part 32: 1975
Identical to SABS Method 51: 1975

Test method for assessing relative density of liquids using a pycnometer.

ZWS 433:1993
Paints: Relative density of pigments and extenders
Price Code: Gr. 3
6 pages
Replaces: ZWS K15: Part 33: 1971
Equivalent to SABS Method 52: 1975

Method for assessing relative density of pigment and extenders used in paints.

ZWS 434:1993
Paints: Pigment content of paints with a non-aqueous solvent base
Price Code: Gr. 4
7 pages
Replaces: ZWS K15 Part 34: 1971
Equivalent to SABS Method 192: 1974

Test method for determining the content of pigments in paints and pastes with a non-aqueous base.

ZWS 435:1993
Paints: Pigment volume concentration of paints with a non-aqueous solvent base
Price Code: Gr. 3
6 pages
Replaces: ZWS K15: Part 35; 1971
Equivalent to SABS Method 560: 1975

Test method for determining the volume concentration of pigments in paints with a non-aqueous solvent base.

ZWS 436:2007
Textile floor coverings – Clearing maintenance of residential and commercial carpeting
Price Code: Gr.8
55 pages

Provides specifications and guidelines for maintenance techniques for textile floor coverings.It provides cleaning practioners and consumers with minimum requirements for cleaning maintenance programmes and clening techniques to enable textile floor coverings to be kept in a good and hygienic conditions.

ZWS 437:1993
Paints: Resistance to skinning of paint, varnish and lacquer
Price Code: Gr. 2
3 pages
Equivalent to SABS Method 149: 1975

Test method for determining the resistance of paint, varnish and lacquer to skinning.

ZWS 438:1993
Paints: Resistance of paint films to laboratory artificial weathering
Price Code: Gr. 4
8 pages
Equivalent to SABS Method 182: 1975

Test method for determining resistance of paint films to weathering under laboratory conditions.

ZWS 439:1993
Paints: Titanium dioxide content of white emulsion paint pigment
Price Code: Gr. 3
6 pages
Based on ASTM D 1394: 1987

Test method for determining the titanium dioxide content of white emulsion paint.

ZWS 440:1993
Paints: Application of paint by doctor blade
Price Code: Gr. 3
5 pages
Equivalent to SABS Method 37: 1975

Method of paint application using a doctor blade during test procedures.

ZWS 441:1993
Paints: Wet film thickness of paint
Price Code: Gr. 2
4 pages
Based on SABS Method 139: 175

Specifies a method of determining the wet film thickness of paints using an eccentric disc type wet film thickness gauge.

ZWS 442:1993
Hearing protectors: Ear-muffs
Price Code: Gr. 7
31 pages
Based on SABS 1451: Part 1: 1988

Covers constructional, design and performance requirements for ear-muffs intended for use as hearing protectors.

ZWS 443:1994
Primer for wood for interior and exterior use
Price Code: Gr. 4
8 pages
Replaces: ZWS K7: 1961

Covers requirements for primer for wood which is intended for interior and exterior use under synthetic resin enamel paints.

ZWS 444:1993
Red oxide primer for iron and steel
Price Code: Gr. 4
8 pages
Replaces: ZWS K4: 1961
Reprinted 2012

Covers requirements for red oxide primer for use on iron and steel substrate. Intended for interior or exterior use under ready-mix synthetic resin paints.

ZWS 445:1993
Zinc phosphate primer
Price Code: Gr. 4
9 pages
Amended by MD 551: 1994
Based on SABS 1319: 1980

Lays down requirements for zinc phosphate primer for use on suitably prepared iron and steel surfaces.

ZWS 446:1993
Paints: Determination of total iron, expressed as iron (III) oxide, in paints
Price Code: Gr. 3
6 pages
Identical to ISO 1248: 1974

Test method for determining the total iron, as iron (III) oxide, in paints.

ZWS 447:1993
Paints: Resistance of paints and varnish films to cold water
Price Code: Gr. 3
5 pages
Based on SABS Method 167: 1975

Method for determining the resistance of paints and varnishes to cold water.

ZWS 448
Road and runway marking paint
Part 1: 2000 Non-reflectorized solvent-borne road marking paint
Price Code: Gr. 6
19 pages
Replaces: ZWS K20: 1970
Amended by MD 575: 1996. 626: 2000
Reprinted 2011

Covers non-reflectorized quick drying solvent-borne road marking paint for use on bituminous and concrete road surfaces.

Part 2: 1996: Non-reflectorized water-borne road and runway marking paint
Price Code: Gr. 6
20 pages
Based on SABS 731: 1995

Covers non-reflectorized quick-drying water borne road and runway paint for use in bituminous and concrete road and runway surfaces.

ZWS 449:2007
The cleaning and maintenance of floors
Price Code: Gr. 8
48 pages
Based on SANS 10170: 04

Outlines the basic principles of floor maintenance and covers procedures for the cleaning and maintenance the resilient wooden and hard surface floors in domestic, commercial and industrial establishments.

ZWS 451:2007
Cold Chain Management – Milk and dairy products
Price Code: Gr. 7
36 pages
Based on Singapore Standard CP 95:2002

Intended for the application and observance of temperature controls in each sector of the cold chain for milk and dairy products.It sets out recommendations and guidelines for the proper management of these during the production storage, transportation, manufacturing, distribution, handling etc.

ZWS 457:2015
Natural mineral water and spring water
Price Code: Gr. 7
18 pages
Amended by MD 664:2009
Reprinted 2004
Reprinted 2013
Second revision 2015

Applies to natural mineral water and spring water for human consumption.

ZWS 458:1994
Wax emulsionfor coating citrus fruit
Price Code: Gr. 5
14 pages
Based on SABS 1448: 1988

Covers requirements for wax emulsions that are used on citrus fruits to replace the natural coating that has been partially or entirely removed by washing and brushing.

ZWS 461:1994
Starches: Determination of moisture content, oven-drying method
Price Code: Gr. 5
13 pages
Equivalent to ISO 1666: 1973
Reprinted 2012

Specifies two methods for the determination of moisture content in starch: (a) the oven-drying method at 130 ºC at atmospheric pressure; (b) the oven-drying method at 100 ºC or 73 ºC under reduced pressure.

ZWS 462:1994
Starches: Determination of ash
Price Code: Gr. 4
7 pages
Equivalent to ISO 3593: 1981
Reprinted 2012

Specifies a method for the determination of the ash yield by starches. The method is applicable to native (unmodified) starches and to modified starches yielding not more than 2 % of ash.

ZWS 463:1994
Starches: Native (unmodified) or modified: Determination of total fat content
Price Code: Gr. 4
7 pages
Identified ISO 3947: 1977
Reprinted 2012

Specifies a method for the determination of the total fat content of starches, native (unmodified) or modified, of which the expected total fat content is less than 1,5 % mass fraction.

ZWS 464:1995
Incandescent lamps
Price Code: Gr. 5
17 pages
Based on SABS 56:1990

Covers electric incandescent lamps having a nominal life of 1 000 h and intended for domestic and similar general lighting purposes.

ZWS 465:1999
Woven polypropylene grain bags
Price Code: Gr. 4
12 pages
Based on SABS CKS 632: 1990
Reprinted 2012

Covers the requirements for 50 kg bags, made from slip-resistant, tubular, woven fabric (of which polypropylene yarns are the major components) and suitable for use for the handling, transportation and storage of whole cereal grains.

ZWS 466:1994
Starches and derived products: Determination of nitrogen and protein content by the Kjeldahl method - Titrimetric method
Price Code: Gr. 4
10 pages
Equivalent to ISO 3188: 1978
Based on SABS CKS 632: 1990
Reprinted 2012

Specifies a titrimetric method for the determination of the nitrogen and protein content of starch and its derived products with nitrogen content which is greater than 0,01 % (mass fraction).

ZWS 467:1995
Bitumens for roads, Industrial and other purposes
Price Code: Gr. 6
19 pages
Replaces: ZWS 144: 1975 and ZWS 145: 1975
Based on BS 3690: Parts 1 & 2: 1990

Specifies the requirements for penetration, cut-back, hard and oxidized bitumens suitable for use in road construction, industrial purposes and maintenance.

ZWS 468:1995
Burglar resisting safes
Price Code: Gr. 5
15 pages
Identical to SABS 751: 1983
Reprinted 2011
Amended by AMD 673:2014

Covers the requirements for four categories of burglar-resisting safes.

ZWS 469:1995
Paints – Resistance of paint films to laboratory artificial weathering using fluorescent lamps
Price Code: Gr. 2
4 pages

Specifies a method of determining the resistance of paint films to laboratory artificial weathering using fluorescent lamps.

ZWS 470:1999
Guava nectar preserved exclusively by physical means
Price Code: Gr. 4
8 pages
Amended by MD 566: 1995: MD 589: 1999
Based on Codex standard 148: 1985
Reprinted 2011

Covers unfermented pulpy or non-pulpy product obtained by blending guava juice and /or the total edible sieved ground or homogenized product of sound ripe guavas concentrated or unconcentrated with water, sugars or honey and preserved exclusively by physical means.

ZWS 471:1999
Grapefruit juice preserved exclusively by physical means
Price Code: Gr. 4
8 pages
Amended by MD 588: 1999
Based on Codex standard 48: 1981
Reprinted 2011

Cover unfermented grapefruit juice, intended for direct consumption, obtained by a mechanical process, from the endocarp of sound, ripe grapefruit preserved exclusively by physical means.

ZWS 472:1994
Lemon juice preserved exclusively by physical means
Price Code: Gr. 4
8 pages
Amended by MD 587: 1999
Based on Codex standard 47: 1981
Reprinted 2011

Covers unfermented lemon juice intended for direct consumption, obtained by a mechanical process, from the endocarp of sound, ripe lemons preserved exclusively by physical means.

ZWS 473:1994
Precast concrete interlocking pavers
Price Code: Gr. 5
14 pages
Amended by MD 594: 1999
Based on BS 6717 Part 1: 1993 and SABS 1058: 1986
Reprinted 2011

Specifies requirements for precast concrete interlocking pavers intended for use in the construction of paved surfaces subjected to vehicular loading and pedestrian traffic.

ZWS 474:1996
Mechanical properties of fasteners – Bolts, screws and studs
Price Code: Gr. 7
36 pages
Based on ISO 898 Part 1: 1988
Reprinted 2011

Specifies the mechanical properties of bolts, screws and studs when tested at room temperature. Properties will vary at higher and lower temperatures.

ZWS 475:1994
Granadilla juice preserved exclusively by physical means
Price Code: Gr. 4
9 pages
Amended by MD 586: 1999
Reprinted 2011

Covers unfermented granadilla juice intended for direct consumption, obtained by a mechanical process, from the flesh of sound, ripe granadillas preserved exclusively by physical means.

ZWS 479:1995
Water quality – Determination of chloride – silver nitrate titration with chromate indicator (MOHR's Method)
Price Code: Gr. 4
9 pages
Based on ISO 9297: 1989
Reprinted 2011

Specifies a titration method for the determination of dissolved chloride in water. The method is applicable to the direct determination of dissolved chloride in concentrations between 5 and 150 mg/1. Due to many interferences the method is not applicable to heavily polluted waters of low chloride content.

ZWS 480:1995
Water quality – Determination of sulfate – Gravimetric method using barium chloride
Price Code: Gr. 5
12 pages
Based on ISO 9280: 1990
Reprinted 2010

Specifies a gravimetric method for the determination of sulfate in water. The method is applicable to the analysis of all types of water including sea water and most industrial effluents.

ZWS 481:1995
Water quality – Determination of nitrate – Spectrometric method using sulfosalicylic acid
Price Code: Gr. 4
12 pages
Based on ISO 7890: Part 3: 1988
Reprinted 2011

Specifies a method for the determination of nitrate ions in water. Applies to raw and portable water samples.

ZWS 482:1995
Water quality – Determination of nitrite – Molecular absorption spectrometric method
Price Code: Gr. 4
11 pages
Based on ISO 6777: 1984
Reprinted 2011

Specifies a molecular absorption spectrometric method for the determination of nitrate in potable, raw and waste water.

ZWS 483:1995
Water quality – Determination of ammonium – Distillation and titration method
Price Code: Gr. 4
10 pages
Identical to ISO 5664: 1984
Reprinted 2011

Specifies a distillation and titration method for the determination of ammonium in raw, potable and waste water.

ZWS 484:1995
Water quality – Determination of calcium content EDTA titrimetric method
Price Code: Gr. 4
9 pages
Based on ISO 6058: 1984
Reprinted 2011

Specifies a titrimetric method using ethylene diamine tetraacetic acid (EDTA) for the determination of the calcium content of ground waters, surface waters and drinking waters.

ZWS 485:1995
Water quality – Determination of the sum of calcium and magnesium – EDTATitrimetric method
Price Code: Gr. 4
11 pages
Based on ISO 6059: 1984
Reprinted 2011

Specifies a titrimetric method using ethylene diamine tetraacetic acid for the determination of the sum of the calcium and magnesium concentrations in ground water, surface water and drinking water. The lowest concentration that can be determined is 0,05 mmol/1.

ZWS 486:1995
Water quality – Determination of iron – Spectrometric method using 1.10 phenantroline
Price Code: Gr. 4
12 pages
Based on ISO 6332: 1988
Reprinted 2011

Specifies a 1,10 phenantroline spectrometric method for determination of iron in water and waste water.

ZWS 487:1995
Water quality – Determination of manganese – Formaldoxime spectrometric method
Price Code: Gr. 4
11 pages
Based on ISO 6333:1986
Reprinted 2011

Specifies a formaldoxime spectrometric method for the determination of total manganese concentrations between 0,01 and 5 mg/1 including dissolved, suspended and organically bound manganese in surface and ground water.

ZWS 488:1995
Water quality – Determination of cobalt, nickel, zinc, copper, cadmium and lead – Flame atomic absorption spectrometric methods
Price Code: Gr. 6
24 pages
Based on ISO 8288: 1986
Reprinted 2011

Specifies three methods for determining cobalt, nickel, copper, zinc, cadmium and lead in water by flame atomic absorption spectrometry.

ZWS 489:1996
Water quality – Determination of phosphorus – Ammonium molybdate spectrometric method
Price Code: Gr. 7
25 pages
Based on ISO 6878: Part 1: 1986
Reprinted 2011

Specifies methods for determination of phosphorous compounds present in ground, surface and waste waters in various concentrations in dissolved and undissolved state.

ZWS 490:1995
Water quality – Determination of fluoride –Electrochemical probe method for portable and lightly polluted water
Price Code: Gr. 4
11 pages
Based on ISO 10359 Part 1: 1992
Reprinted 2011

Specifies a method for the determination of dissolved fluoride in fresh, portable and low contaminated water and some surface waters, using an electrochemical technique.

ZWS 491:1996
Water quality – Guidelines for the determination of total organic carbon (TOC)
Price Code: Gr. 4
12 pages
Based on ISO 8245: 1987
Reprinted 2011

Gives guidelines for the measurement of TOC concentrations in all kinds of water.

ZWS 492:1995
Water quality – Determination of total water arsenic – Silver diethyldithiocarbamate spectrophotometric method
Price Code: Gr. 4
13 pages
Identical to ISO 6595: 1985
Reprinted 2011

Specifies a silver diethyldithiocarbamate spectrophotometric method for the determination of arsenic in water and waste water.

ZWS 493:1996
Water quality – Determination of cyanide as cyanogens chloride
Price Code: Gr. 4
12 pages
Based on ISO 6703: Part 3: 1984
Reprinted 2011

Specifies a method for the determination of cyanide, as cyanogens chloride in water.

ZWS 498:1998
The installation of communal and single antenna systems for the reception of television and sound broadcast transmission Part 1: VHF and UHF TV and VHF sound antenna systems
Price Code: Gr. 7
43 pages
Based on SABS 061: Part 1: 1994
Reprinted 2012
Reprinted 2013

Establishes principles for the installation, modification and maintenance of communal and single antenna systems.

Part 2: Satellite antenna systems
Price Code: Gr.
49 pages

Establishes principles for the installations of communal and single antenna systems for the reception of signals in the frequency range 11.2 to 12.7 GHz from orbiting satellites.

ZWS 499:1995
Passive antennae for the reception of VHF and UHF television and VHF sound transmissions
Price Code: Gr. 5
21 pages
Identical to SABS 1252: 1994

Specifies the characteristic of passive antennae designed to be used out of doors for the reception of VHF and UHF television and VHF sound transmissions.

ZWS 502:1995
Mailing envelopes
Price Code: Gr. 4
9 pages
Replaces: ZWS P1: 1970 (Partially)
Identical to SABS 822:1966

Specifies envelopes used for mailing purposes, including window-faced envelopes.

ZWS 503:1995
Bond Paper
Price Code: Gr. 4
9 pages
Identical to SABS CKS 610: 1986

Covers four classes (based on grammage) of general purpose bond paper suitable for printing, typewriting, pen and ink writing and photocopying and that are supplied in sheets or reels.

ZWS 504:1995
Toilet tissue
Price Code: Gr. 5
14 pages
Based on SABS 648: 1980

Covers single and double ply grades of creped toilet tissue supplied in rolls.

ZWS 505:1995
Melamine tableware
Price Code: Gr. 5
13 pages
Based on SABS CKS 8: 1977
Reprinted 2012

Covers two types of tableware made of melamine formaldehyde of the categories contained in Table 1 of this standard.

ZWS 506:1995
Fiberglass washdown low flush volume water closet pans with horizontal outlets
Part 1: Connecting dimensions
Price Code: Gr. 3
7 pages
Reprinted 2012

Specifies the connecting dimensions of pedestal wash down low flush volume water closet pans with independent low level cisterns of capacity not less 4, 51.

Part 2: Materials quality, performance and dimensions other than connecting dimensions
PriceCode: Gr. 4
10 pages
Based on ISO 5503: Part 2: 1977

Lays down requirements for dimensions, materials, quality and performance requirements for pedestal wash down, low flush volume water-closet pans with horizontal outlet .

ZWS 507:1995
Paper and board – Determination of water absorptiveness – Cobb method
Price Code: Gr. 4
10 pages
Identical to ISO 535: 1991
Reprinted 2012

Specifies a method of determining the water absorptiveness of sized paper and board, including corrugated fibreboard.

ZWS 508:1995
Paper, board and pulps – Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples
Price Code: Gr. 6
17 pages
Identical to ISO 187:1990
Reprinted 2012

Specifies the standard atmosphere for conditioning and for testing pulp, paper and board including the procedures for measuring the temperature and relative humidity.

ZWS 509:1995
Paper and board – Determination of grammage
Price Code: Gr. 4
9 pages
Identical to ISO 536: 1994
Reprinted 2012

Specifies a method of determining the grammage of paper and board.

ZWS 510:1995
Paper and board – Determination of tearing resistance (Elmendorf method)
Price Code: Gr. 6
19 pages
Identical to ISO 1974: 1990
Reprinted 2012

Specifies a method for determining the tearing resistance of paper. The method can also be used for light boards if the tearing resistance is within the range of the instrument.

ZWS 511:1995
Paper and board – Measurement of diffuse blue reflectance factor (ISO brightness)
Price Code: Gr. 4
9 pages
Identical to ISO 2471: 1977
Reprinted 2012

Specifies a method for measuring the diffuse blue reflectance factor (ISO brightness) of paper and board.

ZWS 512:1995:
Paper and Board - Determination of opacity (paper backing) - diffuse reflectance method
Price Code: Gr. 4
11 pages
Identical to ISO 2471: 1977
Reprinted 2012

Specifies a method for the measurements of the opacity of paper by diffuse reflectance. It is restricted to white and near white papers and boards. Also includes paper or board which has been treated with fluorescent dyestuff or exhibits significant fluorescence.

ZWS 513:1996
Paper –Determination of bursting strength
Price Code: Gr. 6
17 pages
Identical to ISO 2758: 1983
Reprinted 2012

Specifies a method for measuring the bursting strength of paper submitted to increasing hydraulic pressure.

ZWS 514:2019
Wood-Preserving creosote
Price Code: Gr. 8
44 pages
Based on SANS 616:2008 and BS 144:1977
Supersedes ZWS 514:2011
Amended by MD 689

Covers wood preserving creosotefrom coal tar.This coal tar may either be a coal-tar distillate (creosote) or a solution of coal tar pitch in coal-tar distillate and is intended for use in the preservation of timber.

ZWS 515:1996
Scholastic stationery
Price Code: Gr. 7
44 pages
Based on SABS CKS 596: 1984
Amended by MD 580: 2001

Covers 15 types of books and pads and 3 types of ruled paper intended for scholastic and related uses.

ZWS 517:2025
Poultry feeds
Price Code: Gr. 6
18 pages
First published, 1959
First revision, 1972
Second revision, 1996
Third revision, 2005
Fourth revision, 2023
Fifth revision 2025 as ZWS 517
Replaces ZWS 517: 2023

The objective of this standard is to ensure that poultry animals, used either as poultry meat or for the production of eggs used for human food, are fed rations, which are appropriate for the category of bird; and To help ensure the safety of food for human consumption through adherence to recommended poultry feeding practice at the farm level and good best practices during the procurement, handling, storage, processing and distribution of poultry feed and feed ingredients. This standard is meant to control the production and trade of farm feeds in Zimbabwe. This Zimbabwe Standard specifies requirements for the following types of poultry diets:

a) Commercial Broiler Diets
i) Broiler Pre-starter
ii) Broiler Starter
iii) Broiler Grower
iv) Broiler Finisher
v) Broiler Post Finisher
b) Broiler Breeder Diets
i) Breeder Pre-starter
ii) Breeder Starter
iii) Breeder Grower
iv) Breeder Pre-Lay
v) Breeder phase 1 Feed
vi) Breeder phase 2 Feed
c) Commercial Layer Diets
i) Chick Pre-starter
ii) Chick Starter
iii) Pullet Developer/Grower
iv) Pullet Pre-Lay
v) Layers phase 1 Feed
vi) Layers phase 2 Feed
vii) Layers phase 3 Feed
d) Layer Breeder Diets
i) Breeder Pre-starter
ii) Breeder Starter
iii) Breeder Grower
iv) Breeder Pre-Lay
v) Breeder phase 1 Feed
vi) Breeder phase 2 Feed
e) Free Range Diets
i) Starter
ii) Grower/Finisher
iii) Pre-Lay
f) Turkey Diets (Meat Type)
i) Pre-starter
ii) Starter
iii) Grower
iv) Finisher
g) Duck Diets (Meat Type)
i) Pre-starter
ii) Starter
iii) Grower
iv) Finisher
h) Quail Diets (Meat Type)
i) Starter
ii) Finisher

Where this Zimbabwe Standard conflicts in any way with the relevant Government Acts and Regulations, the requirements of Government Acts and Regulations take precedence over those in this standard.

ZWS 518:2023
Cattle feeds
Price Code: Gr. 5
10 pages
First published,1959
First revision, 1972
Second revision, 1996
Replaces: ZWS N2: 1959
First reprinted 2006
Third revision, 2023

The objective of this standard is to provide guidance on animal feeding in relation to animal nutrition and health. It encompasses animal nutrient requirements and veterinary requirements that matter in animal production. These standards are meant to control the production and trade of farm feeds in Zimbabwe.

ZWS 519:2000
Measurement of lettable and tenancy areas of a building
Price Code: Gr. 5
13 pages
Sets down the method by which the floor area of any commercial and industrial building, or portion thereof, shall be measured for the purposes of establishing lettable and tenancy areas.

ZWS 520:1996
Inlet air cleaning equipment for internal combustion engines and compressors – Performance testing
Price Code: Gr. 8
48 pages
Based on ISO 5011: 1988
Reprinted 2012

Establishes and specifies uniform test procedures, conditions equipment and performance reports to permit the direct laboratory performance comparison of air cleaners.

ZWS 521:1996
Welded steel fabric for the reinforcement of concrete and masonry
Price Code: Gr. 5
13 pages
Based on SABS 1024: 1991
Reprinted 2012

Specifies the characteristic of steel fabric made of hard-drawn steel wire, consisting of longitudinal cross wire welded together and intended for use as a form of reinforcement for concrete and masonry.

ZWS 522:2017
Solar batteries
Price Code: Gr. 4
6 pages
Reprinted 2012
Fierst revision 2017

Specifies the minimum requirements for batteries to be used in photovoltaic systems.

ZWS 523:1999
Fluorescent lights for use in photovoltaic systems
Price Code: Gr. 4
10 pages
Reprinted 2012

Specifies the minimum requirements for fluorescent tube lights powered with direct current (dc) invertors ballasts for use in photovoltaic systems.

ZWS 524:1998
Charge controllers for photovoltaic systems using lead acid batteries
Price Code: Gr. 4
9 pages
Reprinted 2012

Specifies the requirements for charge controllers which shall be fitted on all battery-based photovoltaic electric systems.

ZWS 525:2007
Windows, doors, sidelights and tanlights made from rolled mild steel sections
Price Code: Gr. 7
33 pages
Based on SABS 727: 1981

Covers windows, doors, sidelights and fanlights fabricated from rolled mild steel sections complete with fittings and ancillary components.

ZWS 526:1996
Copper for electrical purposes
Part 1: High conductivity copper rectangular conductors with drawn or rolled edges
Price code: Gr. 7
27 pages
Based on BS 1432:1987
Reprinted 2012

Covers requirements for high conductivity copper conductors of rectangular cross section with drawn or rolled edges.

Part 2: Rod and bar
Price Code: Gr. 6
23 pages
Based on BS 1433:1970
Reprinted 2012

Specifies requirements for copper rod and bar for electrical purposes.

ZWS 527:1997
Heavy duty thermoplastic flexible film sacks
Price Code: Gr. 4
9 pages
Based on BS EN 787: 1984

Specifies the general characteristics, requirements and methods of test for sacks made of heavy duty thermoplastic flexible film.

ZWS 528:1996
Pressed steel door frames
Price Code: Gr. 4
12 pages
Replaces: ZWS A36: 1969
Amended by MD 632:2001; MD641: 2002
Reprinted 2012

Specifies the sizes fittings and finish for pressed steel door frames.

ZWS 529:1998
Identification colours for gas cylinders
Price Code: Gr 9
9 pages
Replaces: ZWS Z5: 1973
Reprinted 2004

Specifies requirements for identification of the contents of industrial gas containers.

ZWS 530:2023
Animal feeding stuffs – Sampling and preparation of test samples
Price Code: Gr. 3
3 pages
Reprinted 2012
First Revision 2023

This Zimbabwe standard specifies methods of sampling animal feeding stuffs and a method for the preparation of test samples.

ZWS 531:1996
Polyethylene (PE) pipes for irrigation laterals
Price Code: Gr. 5
13 pages
Based on ISO 8779: 1992. ISO 8796: 1989
Reprinted 2012

Specifies the test methods and required properties for pipes made from polyethylene designed to be used for irrigation laterals.

ZWS 532:1997
Salt
Price Code: Gr. 4
13 pages
Replaces ZWS S34: 1972
Based on Codex Standards 150: 1985
Amended by MD 629: 2000

Specifies requirements for common salt for human and animal consumption.

ZWS 533:1996
Laying precast concrete interlocking pavers
Price Code: Gr. 5
16 pages
Based on BS 6717: Part 3: 1989: South African Concrete Masory
First reprint 2018
Association Paving block manual and Precast paving blocks-Laying manual

Specifies requirements for laying precast concrete interlocking pavers intended for use in the construction of paved surfaces subjected to vehicular loading and pedestrian traffic.

ZWS 534:1996
Paper, board and pulps – Determination of pH or aqueous extracts
Price Code: Gr. 4
8 pages
Identical to ISO 6588: 1981

Specifies a method for the determination of the pH of an aqueous extract of paper, board of pulps. The pH value is not a quantitative measure of the total content of acid or base in the material extracted.

ZWS 535:2021
Manned security services
Price Code: Gr. 7
20 pages
Based on BS 7499: Part 1: 1991
First published 1999
Reprinted 2014

It gives the recommendation for the management, staffing and operation of an organization providing security guarding services on a static site and/or mobile patrol basis.

ZWS 536:1998
Design, sizing and installation of battery based photovoltaic systems
Price Code: Gr. 4
7 pages

Gives recommendations for the design, sizing and installation of battery based photovoltaic domestic systems of up to 100 W peak.

ZWS 537:1997
Malleable cast iron fittings threaded to ISO 7: Part 1
Price Code: Gr. 8
49 pages
Based on ISO 49: 1994
First reprint 2016

Specifies requirements for the design and performance of malleable cast iron threaded pipe fittings.

ZWS 538:1996
Portable aluminum ladders, steps, trestles and lightweight stagings
Price Code: Gr. 8
47 pages
Replaces: ZWS A40: 1969
Based on BS 2037: 1994
Reprinted 2015 as ZWS 538

Specifies requirements for materials and details of construction and performance for portable aluminum ladders, steps trestles and stagings.

ZWS 540:1996
Ready-mixed aluminum finishing paint
Price Code: Gr. 4
8 pages
Replaces: ZWSK 14 1967
Based on SABS 682: 1972

Covers a general purpose ready-mixed aluminum paint for use as a finishing coat on printed surface for interior and exterior use.

ZWS 541 :2020
Carbon steel bars for the reinforcement of concrete
Part 1 – Weldable Reinforceing Bar, coil and de-coiled products
Price Code: Gr. 7
37 pages
Based on BS 4449: 2016
Amended by MD 646: 2003
First reprint 2020

This Part 1 of Zimbabwean Standard ZWS 541 specifies requirements for ribbed weldable reinforcing steel used for the reinforcement of concrete structures. The standard covers steel delivered in the form of bars, coils and decoiled products. The standard contains provisions for three steel grades, all of 500 MPa characteristic yield strength, but with different ductility characteristics. The three grades are B500A, B500B and B500C. The weldability requirements for all grades of steel are specified in terms of the chemical composition, and in particular the carbon equivalent value. Steel bars produced by re-rolling finished products, or by rolling material of which the metallurgical history is not fully documented or not known, are not covered by this British Standard.
NOTE 1. Flash welds in lengths of bar are permissible under this standard, provided all the mechanical requirements are met. However, for some purposes, purchasers might specifically require bars without flash welds, and if so this ought to be stated at the time of enquiry and/or order.

ZWS 541 :2020
Carbon steel bars for the reinforcement of concrete
Part 2 – Specification
Price Code: Gr. 7
37 pages
Based on BS 4482: 2016
Amended by MD 646: 2003

This draft Zimbabwe Specification Part 2 of ZWS 541 specifies requirements for plain, indented and ribbed steel wire used for the reinforcement of concrete products. The standard contains provisions for two grades, based on mechanical properties. Grade 500 is specified for plain, indented and ribbed wires. Grade 250 is specified as an option for plain wires only. ZWS 541 Part 1 covers Bar or coil for the manufacture of structural welded fabric Wire for the prestressing of concrete and wire used for ties, lifting and other general engineering or industrial purposes is not covered by this standard. The nominal wire diameter (size) range specified in this standard is 2.5 mm to 12 mm.

ZWS 545: 2026
Animal feeding stuffs - Determination of calcium content - Titrimetric method
Price Code: Gr. 4
4 pages
Replace: ZWS 545:1996
Based on ISO 6490: Part 1:1985

This Zimbabwe Standard specifies a titrimetric method for the determination of the calcium content of animal feeding stuffs. The method is applicable to all animal feeding stuffs having calcium contents greater than 1 g/kg.

ZWS 546:1997
Animal feeding stuffs – Determination of total phosphorus content – Spectrophotometric method
Price Code: Gr. 4
9 pages
Based on ISO 6491: 1980

Specifies a spectrophotometric method for the determination of the total phosphorus content of animal feeding stuffs.

ZWS 547:1996
Animal feeding stuffs – Determination of moisture content
Price Code: Gr. 4
8 pages
Replaces:ZWS K 1: 1969
Based on ISO 6496: 1983
Reprinted 2015

Specifies a method for determination of the moisture (water and other volatile substances) content of animal feeding stuffs.

ZWS 549:1996
Animal feeding stuffs-Determination of urea content
Price Code: Gr. 5
8 pages
Replaces: ZWS K1: 1969
Based on ISO 6654: 1991
Reprinted 2015

Specifies a spectrophotometric method for the determination of the urea content of animal feeding stuffs.

ZWS 550:1996
Animal feeding stuffs – Determination of free and total gossypol
Price Code: Gr. 4
9 pages
Replaces: ZWS K1: 1969
Based on ISO 6866: 1985
Reprinted 2015

Specifies a method for the determination of the total content of free and total gossypol and chemically related substances in animal feeding stuffs.

ZWS 553:2023
Hard woodpoles, droppers, laths, guardrail posts and spacer blocks
Price Code: Gr. 7
36 pages
Amended by MD 622: 1999: 625: 2000
Based on SABS 457: Part 1 to 3: 1994
Incorporates MD 678:2014
First reprint 2015
Fifth revision, 2023

This standard specifies requirements for hardwood structural poles, agricultural poles, fencing poles, round droppers and guardrail posts. The poles are intended for the erection of fences and vine trellises, for general use in orchards and for structural purposes. The droppers are intended for fencing. The guardrail posts are intended for the erection of steel guardrails at the sides of roads.

ZWS 554:1998
W.C flushing cisterns
Price Code: Gr. 6
17 pages
Based on SABS 821: 1990
Firsr reprint 2015

Covers the requirements for hand-operated high-level, low-level, near-level and close-coupled cisterns of various flushing capacities and that are designed for a single operation or a dual-flushing operation.

ZWS 555:1997
Cold pour resin compound and heat- shrink cable joints in the voltage range up to 1 000 V ac and 1 500V dc
Part 1: Specification for materials
Price Code: Gr. 8
49 pages
First reprint 2015 as ZWS 555.1

Specifies requirements for materials supplied in kits for making cable joints in operating voltage range up to 1 000 V a.c. and 1 500 V d.c in which the cable insulation reinstatement is effected by cold pour resin compound.

Part 2: Code of practice for on-site installation
Price Code: Gr. 6
23 pages
Based on BS 6910: part 2: 1989

Provides guidance on the procedures to be followed when making joints by the cold pour resin or heat-shrink methods in cables in the operating voltage range up to 1 000 V ac and 1 500 V dc.

ZWS 556:1997
13 A plugs, socket-outlets, adaptors and connection units
Part 1: Rewirable and non rewirable 13 A fused plugs
Price Code: Gr. 8
75 pages
Replaces ZWS C22 1973
Based on BS 1363: Part 1: 1995

Specifies requirements for 13 A fused plugs having insulating sleeves on line and neutral pins, for household, commercial and

light industry purposes, with particular reference to safety in normal use. The plugs are suitable for sound-vision equipment, luminaires, etc, in a.c. circuits only, operating at voltages not exceeding 250 V r.m.s at 50 Hz.

Part 2: 13 A switched and un switched socket-outlets
Price Code: Gr. 8
76 pages
Replaces ZWS C22: 1973
Based on BS 1363: Part 2: 1995
Specifies requirements for 13 A switched and unswitched shuttered sockets-outlets for household, commercial and light industrial purposes with particularreferences to safety in normal use.

ZWS 557:1997
Immersion heaters for electric storage water heaters
Price Code: Gr. 4
16 pages
Based on SABS 514: 1975

Covers withrawable and non withrawable types of electric immersion heaters for use in thermostatically controlled electric storage water heaters.

ZWS 558:1999
Waste water
Price Code: Gr. 8
22 pages
Replaces ZWS Z21: 1972
Reprinted 2004

Specifies standards for waste water which has been produced by or results from the use of water for manufacturing, mechanical or mining purposes, for the generation of power or for the purposes of water-borne sanitation.

ZWS 559:1999
Refined sugar for household use
Price Code: Gr. 4
10 pages
Amended by MD 636:2001, MD640: 2004
Based on Codex standard 4: 1981
First reprint 2016

Specifies requirements for refined sugar that is produced for the purpose of household use only.

ZWS 560:1997
Water for domestic supplies
Price Code: Gr. 6
21 pages
Based on SABS 241: 1984
Reprinted 2004

Lays down the minimum physical, chemical and bacteriological requirements for the purity as delivered to the consumer, of water for domestic supplies regardless of source.

ZWS 561:1998
Diaries
Price Code: Gr. 4
10 pages
Based on SABS CKS 301: 1971
First reprint 2016

Specification covers four different types of diaries.

ZWS 562:2002
Office furniture – Work tables and desks
Part 1: 2002 Dimensions
Price Code: Gr. 4
7 pages
Amended by MD 657: 2004
Based on EN 527: Part 1: 2000
Partially supersedes ZWSKX 3: 1968

Specifies dimensions of office tables and desks for general use.It includes neither dimensions for drawers nor those for other tables or reception desks.

Part 2:2003 Mechanical safety requirements
Price Code: Gr. 3
7 pages
Based on EN 527-2: 2002

Specifies the mechanical safety requirements of office tables and desks.

ZWS 564: 1998
Protective helmets for pedal cyclists
Price Code: Gr. 6
21 pages
First reprint 2016Based on SABS 1542: 1991

Specifies the characteristics of protective headgear for wear by pedal cyclists.

ZWS 567:1996
Animal feeding stuffs- Determination of sodium chloride content
Price Code: Gr. 3
6 pages
Partially replaces: ZWS K 1: 1969
First reprint 2016

Specifies a method of determining sodium chloride in animal feeding stuffs.

ZWS 569:1997
Wood mosaic flooring
Price Code: Gr. 6
19 pages
Endorsement of SABS 978: 1983
Supersedes ZWS 015: 1972
First reprint 2016

Covers the requirements for two grades of mosaic flooring in the form of prefabricated panels that are made from fillets of certain species of wood and are intended to be bonded directly or over an interlayer to a supporting base.

ZWS 571:1997
Agricultural food products – General directions for the determination of nitrogen by the Kjeidahl method
Price Code: Gr. 7
11 pages
Based on ISO 1871: 1975
Reprinted 2010

Gives general directions for the apparatus and procedures used for the determination of nitrogen in agricultural food products by the Kjeidahl method.

ZWS 572:1998
Waste water – Determination of temperature
Price Code: Gr. 3
5 pages
Replaces ZWS Z21: 1972 (Clause 20)
First reprint 2016

Describes a method for the determination of temperature in waste water.

ZWS 573:1997
Waste water - Determination of dissolved oxygen
Price Code: Gr. 4
8 pages
Replaces ZWS Z21: 1972 (clause 21)
Reprinted 2004

Specifies a method for the determination of dissolved oxygen in waste water.

ZWS 574:1997
Waste water – Determination of chemical oxygen demand
Price code: Gr. 4
7 pages
Replaces: ZWS Z21: 1972 (Clause 22)
Reprinted 2004

Describes a method for the determination of chemical oxygen demand (COD) in waste water.

ZWS 575:1997
Waste water – Determination of oxygen absorbed
Price Code: Gr. 3
6 pages
Replaces ZWS Z21: 1972 (Clause 23)
Reprinted 2004

Specifies a method for the determination of oxygen absorbed in waste water.

ZWS 576:1997
Waste water – Determination of total suspended solids, total dissolved solids and total solids
Price Code: Gr. 3
5 pages
ReplacesZWSZ21: 1972 (Clause 24, 25 and 26)
Reprinted 2004

Specifies a method for the determination of total suspended solids, total dissolved solids and total solids in waste water at the point of discharge.

ZWS 577:1997
Water quality – Determination of total dissolved solids – Conductivity method
Price Code: Gr. 3
6 pages
First reprint 2016

Specifies the conductivity method for the determination of total dissolved solids (TDS) in water.

ZWS 578:1997
Water quality –Determination of sulfate content – Turbid metric method
Price Code: Gr. 4
7 pages
Reprinted 2004

Specifies a method for determination of sulfate in water.

ZWS 579:1997
Waste water – Determination of calcium and magnesium content – Titrimetric method
Price Code: Gr. 3
6 pages
Replaces: ZWS Z21: 1972 (Clause 27)
Reprinted 2004

Specifies the titrimetric method for the determination of calcium and magnesium content in waste water.

ZWS 580:1997
Water quality – Determination of sodium and potassium – Flame emission spectrometry
Price code: Gr. 4
10 pages
Based on ISO 9964: 1993
Reprinted 2005

Specifiesa method for the determination of dissolved sodium and potassium by flame emission spectrometry (FES). It is intended for the analysis of raw and drinking waters.

ZWS 581:1998
Waste water – Determination of soap, oil or grease
Price Code: Gr. 3
5 pages
Replaces ZWS Z21: 1972 (Clause 25)
First reprint 2018

Describes a method for the determination of soap, oil or grease in waste water.

ZWS 582:1997
Waste water – Determination of free and saline ammonia
Price Code: Gr. 3
6 pages
Replaces: ZWS Z21: 1972 (Clause 3)
Reprinted 2005

Specifies a method for the determination of free and saline ammonia in waste water.

ZWS 583:1997
Waste water – Determination of arsenic content – Gutzeit method
Price Code: Gr. 4
6 pages
Replaces: ZWS Z21: 1972 (Clause 31)
Reprinted 2005
First reprint 2016

Describes the Gutzeit method for the determination of arsenic content in waste water.

ZWS 584:1997
Waste water – Determination of barium content
Part 1: Turbidimetric method
Price Code: Gr. 4
7 pages
Replaces: ZWS Z21: 1972 (clause 32)
Reprinted 2004, 2005

Describes the turbidimetric method for the determination of barium content in waste water.

Part 2: Direct nitrous oxide-acetylene flame method
Price Code: Gr. 4
9 pages
Reprinted 2004

Describes the direct nitrous oxide-acetylene flame method for the determination of barium content in waste water.

ZWS 585:1997
Waste water – Determination of boron content – UV spectrometric method
Price Code: Gr. 3
6 pages
Replaces: ZWS Z21: 1972 (clause 33)
Repirnted 2004

Describes the UV spectrometric method for the determination of boron content in waste water.

ZWS 586:1997
Waste water – Determination of cadmium content Dithizone method
Price Code: Gr.4
11 pages
Replaces: ZWS Z21: 1972 (clause 34)
Reprinted 2004

Describes the dithizone method for the determination of cadmium in waste water.

ZWS 587:1997
Waste water – Determination of chlorides content
Part 1: Titrimetric method
Price Code: Gr. 3
5 pages
Replaces: ZWS Z21: 1972 (Clause 35)
Reprinted 2004

Describes the titrimetric method for the determination of chlorides content in waste water.

Part 2:Mercuric nitrate method
Price Code: Gr 4
7 pages

Describes the mercuric nitrate method for the determination of chlorides content in waste water.

ZWS 588:1997
Water quality- Determination of residual chlorine
Part 1: Amperometric titration method
Price Code: Gr. 4
10 pages
Reprinted 2005

Describes the amperometric titration method for the determination of residual chlorine in water.

Part 2: DPD colorimetric method
Price Code: Gr. 5
15 pages
Reprinted 2005

Describes an N, N – Diethyl – p – phenylenediamine (DPD) colorimetric method for the determination of residual chlorine in water.

ZWS 589:1997
Waster water-Determination of total chromium content (as Cr)
Price Code: Gr. 4
8 pages
Replaces: ZWS Z21: 1972 (Clause 37)

Describes a method for he determination of total chromium (as Cr) in waste water.

ZWS 590:1997
Waste water: Determination of copper content – UV spectrometric method after complexation
Price Code: Gr. 4
7 pages
Replaces: ZWS Z21: 1972 (Clause 38)
Reprinted 2005

Describes a method for the determination of copper in waste water using UV spectrometriy.

ZWS 591:1997
Waste water – Determination of cyanides content
Part 1: UV spectrometric method
Price Code: Gr. 3
6 pages
Replaces: ZWS Z21: 1972 (Clause 39)
Reprinted 2005

Describes the UV spectrometric method for the determination of cyanides content in waster water.

Part 2: Titrimetric method
Price Code: Gr. 5
15 pages
Reprinted 2005

Described the titrimetric method for the determination of cyanides content in waste water.

ZWS 592:1998
Water quality – Determination of anionic surfactants by measurement of the methylene blue index (MBAS)
Price Code: Gr. 5
16 pages
Based on ISO 7875: Part 1: 1996
Reprinted 2004

Specifies a spectrometric method for the determination of anionic surfactants by measurement of the methylene blue index (MBAS) in aqueous media.

ZWS 593:1997
Water quality – Determination of non-ionic surfactants using Dragendorff reagent
Price Code: Gr. 5
16 pages
Based on ISO 7875: Part 2: 1984
Reprinted 2005

Specifies a method for the determination of non-ionic surfactants in aqueous media using Dragendorff reagent.

ZWS 594:1997
Waste water – Determination of fluoride content
Part 1: Ion-selective electrode method
Price Code: Gr. 5
14 pages
Reprinted 2005

Describes the ion selective electrode method for the determination of fluoride content in waste water.

Part 2: Nessler tube method
Price Code: Gr. 3
6 pages
Reprinted 2005

Describes the Nessler tube method for the determination of fluoride content in waste water.

ZWS 595:1997
Waste water – Determination of lead content – UV spectrometric method using dithizone
Price Code: Gr. 4
11 pages
Replaces ZWS Z21: 1972 (Clause 43)
Reprinted 2005

Describes the UV spectrometric method for the determination of fluoride content in waste water.

ZWS 596:1997
Water quality – Determination of manganese content – Persulfate colorimetric method
Price Code: Gr. 4
10 pages
Reprinted 2005

Specifies a method for the determination of manganese content in water.

ZWS 597:1997
Waste water – Determination of mercury content
Part 1: Cold vapour atomic absorption spectrometry
Price Code: Gr. 4
9 pages
Reprinted 2004, 2005

Specifies a cold vapour atomic absorption spectrometric method for the determination of mercury content in waste water.

Part 2: UV Spectrometric method
Price Code: Gr. 4
9 pages
Replaces ZWS Z21: 1972 (Clause 45)

Describes the UV spectrometric method for the determination of mercury in waste water.

ZWS 598:1997
Waste water – Determination of nickel content – UV spectrometric method after complexation with dimethylglyoxime
Price Code: Gr. 4
9 pages
Replaces ZWS Z21: 1972 (Clause 46)
Reprinted 2005

Describes the UV spectrometric method after complexion with dimethylglyoxime for the determination of nickel content in waste water.

ZWS 599:1997
Waste water – Determination of total nitrogen content kjeldahl distillation using selenium catalyst
Price Code: Gr. 4
8 pages
Replaces: ZWS Z21: 1972 (Clause 47)

Describes the kjeldahl distillation method using selenium catalysts for the determination of the total nitrogen content in waste water.

ZWS 600:1997
Waste water – Determination of phenolic compounds contents (as phenol) – UV spectrometric analysis
Price Code: Gr. 3
6 pages
Replaces: ZWS Z21: 1972 Clause 48)
Reprinted 2005

Describes the UV spectrometric method for the determination of phenolic compounds (as phenol) content in waste water.

ZWS 601:1997
Waste water – Determination of sulfides content – titrimetric method
Price Code: Gr. 3
6 pages
Replaces ZWS Z21: 1972: (Clause 51)
Reprinted 2005

Describes a titrimetric method for the determination of sulfides content in waste water.

ZWS 602:1997
Water quality – Determination of zinc content –UV spectrometric method
Price Code: Gr. 4
8 pages
Reprinted 2005

Describes the UV spectrometric method for the determination of zinc content in water.

ZWS 603:1997
Waste water – Determination of total phosphate content (as P)
Price Code: Gr. 4
6 pages
Replaces: ZWS Z21: 1972 (Clause 49)
Reprinted 2005

Describes a method for the determination of total phosphates content in waste water.

ZWS 604:1997
Water quality – Determination of total chromium (VI)
Price Code: Gr. 4
11 pages
Reprinted 2005

Describes a method for the determination of total chromium (VI) in water.

ZWS 605:1997
Water quality – Determination of selenium – Atomic absorption spectrometric method (hydride technique)
Price Code: Gr. 5
13 pages
Based on ISO 9965: 1993
Reprinted 2005

Specifies a method for the determination of selenium and organically bonded selenium in drinking waters, ground waters and surface waters.

ZWS 606:1997
Water quality – Determination of alkalinity – Titrimetric method
Price Code: Gr. 5
16 pages
Reprinted 2005

Specifies the titrimetric method for the determination of the alkalinity of water.

ZWS 608:1998
Respiratory protective devices for self-rescue – self-contained closed-circuit breathing apparatus-Chemical oxygen (KO2) escape apparatus-Requirements, testing and marking
Price Code: Gr. 7
40 pages
Based on EN 401: 1993
Reprinted 2005

Covers self-contained closed- circuit breathing apparatus, chemical oxygen (KO2) type, for escape.

ZWS 609: 2000
Bread
Part 1: **White**
Price Code: Gr. 7
19 pages
First Reprint of ZWS 609: Part 1

Specifies the requirements for yeast-leavened white bread.

Part 2: 2002 Brown and whole-wheat bread
Price Code: Gr. 8
24 pages
Based on KS 05-172: 1972

Specifies the requirements for yeast-leavened brown and wholewheat bread.

ZWS 610:1997
Salt - Determination of sodium chloride content
Price Code: Gr. 3
6 pages
Based on ISO 2481: 1993
Reprinted 2015

Specifies a mercurimetric method for the determination of sodium chloride content in salt.

ZWS 611:1997
Salt - Determination of cadmium content
Price Code: Gr. 4
11 pages
Based on BS 7319: part 6: 1990
First reprint 2015 as ZWS 611

Describes a flame atomic absorption spectrometric (AAS) method for the determination of total cadmium in common salt.

ZWS 612:1997
Salt - Determination of copper content
Price Code: Gr. 4
8 pages
Based on BS 7319: Part 7: 1990
Reprint 2015 as ZWS 612

Describes a photometric method, using zinc dibenzyldithiocarbamate for the determination of copper in common salt.

ZWS 613:1997
Salt - Determination of lead content
Price Code: Gr. 4
10 pages
Based on BS 7319: Part 8: 1990
First reprint 2016

Describes a flame atomic absorption spectrometric (AAS) method for the determination of total lead in salt.

ZWS 614:1997
Salt - Determination of mercury content
Price Code: Gr. 4
11 pages
Based on BS 7319: Part 9: 1990
Reprinted 2015

Describes a cold vapour atomic absorption spectrometric method for the determination of total mercury in common salt.

ZWS 615:1997
Salt - Determination of pH and total alkalinity
Price Code: Gr. 4
7 pages
Based on BS 7319: Part 10: 1990
First reprint 2016

Specifies a potentiometric method for the measurement of the pH of sodium chloride solution, of concentration 100g/1 and for the determination of total alkalinity.

ZWS 616:1997
Salt - Determination of iron content
Price Code: Gr. 4
9 pages
Based on BS 7319: Part 11: 1990
First reprint 2016

Specifies a photometric method, using 1,10-phenanthroline, for the determination of iron in salt.

ZWS 617:1997
Salt - Determination of anti-caking additives content of salt for food use
Price Code: Gr. 4
8 pages
Based on BS 7319: Part 12: 1990
First reprint 2016

Specifies two methods for the determination of water-soluble hexacyanoferrate (II) (anti-caking additives) in salt for food use.

ZWS 618:1997
Salt - Determination of arsenic - Silver diethydithiocarbamate photometricmethod
Price Code: Gr. 4
10 pages
Based on Codex Standard 150: 1985
First reprint 2016

Describe a silver diethyldithiocarbamate method for the determination of arsenic in common salt.

ZWS 619:1997
Salt - Determination of total iodine - Titrimetric method with sodiumthiosulfate
Price Code: Gr. 4
8 pages
Based on Codex Standards 150: 1985
First reprint 2016

Describes a titrimetric method for the determination of total iodine (iodides and iodates) in common salt.

ZWS 620: 1985
Flexible polyvinyl chloride garden hose (Metric units)
Price Code: Gr. 4
11 pages
Replaces K27: 1971
First reprint 2016

This Zimbabwe Standard covers requirements for the following two types of flexible polyvinyl chloride garden hose for use with cold water:
a) Type I. An unreinforced hose intended for use where the pressure that the hose has to withstand is minimal (such as exists in open-ended conditions and where the sprinkler or nozzle fitted to the hose does not incorporate an "on/off" control).
b) Type II. A fibre-reinforced hose that is suitable for use in cases where the hose will have to withstand mains pressures (e.g. with sprinklers or nozzles that have an "on/off" control).
NOTE 1. It does not cover hoses to be used for the conveyance of potable water, beverages, foodstuffs or chemicals.
NOTE 2. The titles of the publications referred to in this standard are listed in the Preface.

ZWS 622:1997
Salt - Determination of matter insoluble in water or in acid and preparation of principal solutions for other determinations
Price Code: Gr. 4
9 pages
First reprint 2016
Specifies a method for determining insoluble matter in common salt.

ZWS 623:1997
Salt - Determination of sulfate content - Barium sulphate gravimetric
Method
Price Code: Gr. 4
7 pages
Based on ISO 2480: 1972
First reprint 2016

Specifies a gravimetric method for the determination of sulfate content of common salt.

ZWS 624:1997
Salt - Determination of calcium and magnesium contents – EDTA complexometric methods
Price Code: Gr. 4
9 pages
Based on ISO 2482: 1973
Reprint 2015

Specifies complexometric methods for determining the calcium and magnesium contents in common salt.

ZWS 625:1997
Salt - Determination of moisture content
Price Code: Gr. 3
5 pages
Based on ISO 7319: Part 2: 1990
Reprint 2015

Specifies a method for the determination of moisture content of common salt.

ZWS 626:1997
Water quality – Determination of iron, manganese, potassium and sodium content – Direct air-acetylene flame method
Price Code: Gr. 7
28 pages
Reprinted 2005

Describes the direct air-acetylene flame method for the determination of iron, manganese, potassium and sodium content in water.

ZWS 627:1997
Waste water – Determination of sodium content – Flame photometric method
Price Code: Gr. 3
5 pages
Replaces ZWS Z21: 1972 (Clause 28)
Reprinted 2005

Describes the flame photometric method for the determination of sodium in waste water.

ZWS 628:1997
Water quality – Determination of potassium content – Flame photometric method
Price Code: Gr. 4
8 pages
Reprinted 2005

Describes the flame photometric method for the determination of potassium method.

ZWS 629:1997
Water quality – Detection and enumeration of coliform organisms, thermotolerant organisms and presumptive *Escherichia coli*
Part 1: 1997 Membrane filtration method
Price Code: Gr. 6
16 pages
Based on ISO 9308: Part 1: 1990
First reprint 2016

Specifies a method for the detection and enumeration in water of coliform organisms, thermotolerant coliform organisms and presumptive *Escherichia coli* (presumptive E *Coli*) after filtration through a membrane.

Part 2:1997 Multiple tube (most probable number) method
Price Code: Gr. 6
19 pages
Based on ISO 9308: Part 2: 1990
First reprint 2016

Specifies a method for the detection and enumeration in water of coliform organisms thermotolerant coliform organisms and presumptive*Escherichia coli (*presumptive *E coli)* by culture in a liquid medium in multiple tubes and calculation of their most probable numbers in the sample.

Part 3:2004 Defined substrate technology (Colilert) method
Price Code: Gr. 3
6 pages
First reprint 2015 as ZWS 629.3

Specifies a method for the detection and enumeration of coliform organisms, thermotolerant coliform organisms and presumptive Escherichia coli (*E. coli*) by the defined substrate technology.

ZWS 631:1998
Bakery products – Determination of total solid content
Price Code: Gr. 2
4 pages
Based on TZS 102: 1983 (Annex C)
First reprint 2016

Describes a method for the determination of total solid content in bakery products.

ZWS 632:1998
Bakery products - Determination of pH
Price Code: Gr. 3
5 pages
Based on TZS 102: 1983 (Annex D)
First reprint 2016

Describes a method for the determination of pH of aqueous extracts for bakery products.

ZWS 633:1998
Bakery products - Determination of acid insoluble ash
Price Code: Gr. 3
5 pages
Based on TZS 102: 1983 (Annex E)
First reprint 2016

Specifies a method for the determination of insoluble ash in bakery products.

ZWS 634:1998
Bakery products - Determination of crude fibre
Price Code: Gr. 3
6 pages
Based on TZS 102: 1983 (Annex F)
First reprint 2016

Specifies a method for the determination of crude fibre in bakery products.

ZWS 636:1998
Bakery Products - Determination of fat content
Price Code: Gr. 3
5 pages
Based on AOAC official Methods of analysis
First reprint 2018

Specifies an ether extraction method for the determination of fat content in bakery products.

ZWS 637:1998
Bakery Products - Determination of volume/mass ratio
Price Code: Gr. 2
5 pages
Based on TZS 102: 1983 (Annex B)
First reprint 2016

Specifies a method for the determination of volume/mass ratio of bread.

ZWS 639:1999
Plastering cement
Price Code: Gr. 5
15 pages
Based on BS 7583: 1996
First reprint 2016

Specifies requirements for the composition, manufacture as well as the chemical and physical properties of plastering cement.

ZWS 641:1997
Water quality – Determination of total hardness of water – Ethylene diamine tetra tra-acetic acid (EDTA) method
Price Code: Gr. 4
8 pages
Based on SABS: Method 215: 1971
First reprint 2016

Specifies a method of determining the total hardness of water using ethylene diamine tetra acetic acid (EDTA) as the complexing agent.

ZWS 642:1998
Water quality – Determination of calcium content – Direct flame atomic absorption
Price Code: Gr. 4
8 pages
Based on SABS Method 216: 1990

Specifies a method of determining the calcium content of water and waste water, using an air acetylene flame and direct flame atomic absorption.

ZWS 643:1997
Water quality – Determination of electrical conductivity
Price Code: Gr. 3
5 pages
Based on SABS Method 1057: 1981
Reprinted 2005

Specifies a method to determine the electrical conductivity of water using a conductivity meter.

ZWS 645:2002
Safety on construction sites
Part 1: Format documents
Price Code: Gr. 7
33 pages

Gives recommendations for the management of safety on construction sites.

Part 2: Safe working practice
Price Code: Gr. 8
58 pages

Gives advice for specific construction activities.

ZWS 647:1999
Refined sugar - Determination of polarization by polarimetry
Price Code: Gr. 3
6 pages
Based on Laboratory manual of South African Sugar Factories
First reprint 2018

Specifies a method for determination of polarization (pol) of refined sugar for household use.

ZWS 649:2000
The inspection and repairs of boilers
Price Code: Gr. 10
101 pages
Based on AS 3788: 1999

Specifies the requirements for the inspection, repairs and alteration of in-service boiler and gives guidance in the execution of such inspection.

ZWS 650:1997
Efficacy of cleaning plant, equipment and utensils - Swab technique
Price Code: Gr. 3
6 pages
Identical to SABS Method 763: 1974

Covers the sampling and testing of plant, equipment and utensils for efficacy of cleaning and disinfecting using the swab technique.

ZWS 651:1997
Efficacy of cleaning plant, equipment and utensils - Strip technique
Price Code: Gr. 4
7 pages
Identical to SABS Method 764: 1974

Covers the sampling and testing of plant, equipment and utensils for efficacy of cleaning and disinfecting, using the strip technique.

ZWS 652:1997
Efficacy of cleaning plant, equipment and utensils - Agar sausage technique
Price Code: Gr. 4
7 pages
Identical to SABS Method 765: 1974

Covers the sampling of plant, equipment and utensils for efficacy of cleaning and disinfecting, using the agar sausage technique.

ZWS 653:1998
Protective Devices – Definitions
Price Code: Gr. 4
11 pages
Based on EN 132: 1990

Refers to respiratory protective devices. It contains definitions for commonly used terms of this subject area.

ZWS 654:1998
Respiratory protective devices - Classification
Price Code: Gr. 4
7 pages
Based on EN 133: 1990

Covers the classification of respiratory protective devices.

ZWS 655:1998
Respiratory protective devices: Nomenclature of components
Price Code: Gr. 8
25 pages
Based on EN 134: 1998

Covers respiratory protective devices.

ZWS 656:1998
Respiratory protective devices – List of terms
Price Code: Gr. 4
10 pages
Based on EN 135: 1991

Contains a list of terms which are commonly used in the field of respiratory protection.

ZWS 657:1998
Respiratory protective devices – Full face masks for special use
Price Code: Gr. 4
10 pages
Based on EN 136: Part 10: 1992

Specifies requirements for full face masks for special use such as fire fighting and mining.

ZWS 658:1998
Respiratory protective devices – Fresh air hose breathing apparatus for use with full face mask, half mask or mouth piece assembly – Requirements, testing and marking
Price Code: Gr. 7
31 pages
Based on EN 138: 1990

Specifies minimum requirements for fresh air hose breathing apparatus for use with a full face masks, a half mask or a mouth piece assembly as a respiratory protective device.

ZWS 659:1998
Respiratory protective devices – Compressed air line breathing apparatus for use with a full face mask, half mask or a mouthpiece assembly – Requirements, testing and marking
Price Code: Gr. 7
38 pages
Based on EN 139:1995

Specifies minimum requirements for compressed air line breathing apparatus for use with a full face mask, half mask or a mouth piece assembly as a respiratory protective device.

ZWS 660:1998
Respiratory protective devices – Gas filters and combined filters
Price Code: Gr. 7
29 pages
Based on EN 141: 1991

Covers gas filters and combined filters for use as components in unassisted respiratory protective devices with the exception of escape apparatus and filtering facepieces.

ZWS 661:1998
Respiratory protective devices - Particle filters – Requirements, testing and marking
Price Code: Gr. 7
35 pages
Based on EN 143: 1990

Refers to particle filters and components in unassisted respiratory protective devices, except escape apparatus and filtering facepieces.

ZWS 662:1998
Respiratory protective devices – Gas cylinder valves thread connection for insert connector
Price Code: Gr.4
10 pages
Based on EN 144 Part 1: 1991

Applies to the connection between a gas cylinder valve and a gas cylinder for respiratory protective devices.

ZWS 663:1998
Respiratory protective devices – Powered particle filtering devices incorporating helmets or hoods
Price Code: Gr. 7
28 pages
Based on EN 146: 1992

Specifies minimum requirements for powered particle filtering devices incorporating helmets or hoods used as respiratory protective device.

ZWS 664:1998
Respiratory protective devices – Power assisted particle filtering devices incorporating full face masks, half masks or quarter masks – Requirements, testing and marking
Price Code: Gr. 7
29 pages
Based on EN 147: 1991

Specifies minimum requirements for power assisted respiratory protective devices which incorporated full face mask, half mask or quarter mask –together with a particle filter.

ZWS 665:1998
Respiratory protective devices – Threads for face pieces – Thread connection M 45 x 3
Price Code: Gr. 3
6 pages
Based on EN 148: Part 3: 1992

Applies to self – contained compressed air breathing apparatus designed as positive pressure breathing apparatus.

ZWS 666:1998
Respiratory protective devices – Powered fresh air hose breathing apparatus incorporating a hood – Requirements, testing and marking
Price Code: Gr. 7
31 pages
Based on EN 269: 1994

Specifies minimum requirements for powered fresh air hose breathing apparatus incorporating a hood as a respiratory protective device.

ZWS 667:1998
Respiratory protective devices – Compressed air line breathing apparatus incorporating hood – Requirements, testing and marking
Price Code: Gr. 7
35 pages
Based on EN 270: 1995

Specifies minimum requirements for compressed air line breathing apparatus incorporating a hood as a respiratory protective device.

ZWS 668:1998
Respiratory protective devices – Compressed air line or powered fresh air hose breathing apparatus incorporating a hood for use in abrasive blasting operations – Requirements, testing and marking
Price Code: Gr. 6
21 pages
Based on EN 271: 1995

Specifies minimum requirements for compressed air line and poweredfresh air hose breathing apparatus incorporating a hood used to provide protection when undertaking blasting work using solid abrasives.

ZWS 669:1998
Respiratory protective devices – AX gas filters and combined filtersfor use against low boiling organic compounds – Requirements, testing and marking
Price Code: Gr. 4
11 pages
Based on EN 371: 1992

Specifies gas filters and combined filters used against low boiling organic compounds.

ZWS 670:1998
Respiratory protective devices – SX gas filters and combined filters against specific named compounds – Requirements, testing and marking
Price Code: Gr. 4
11 pages
Based on EN 372: 1992

Specifies requirements for gas filters and combined filters against specific named compounds for unassisted respiratory protective devices.

ZWS 671:1999
Non-destructive testing of winding equipment
Part 1: Main drive shaft(s) (Hollow or solid design)
Price Code: Gr. 6
20 pages

Covers full cover inspection (FCI) of the main drive shaft(s) using acceptable non-destructive testing (NDT) techniques.

Part 2: Gearboxes
Price Code: Gr. 4
12 pages

Specifies afull cover inspection (FCI) of gearboxes used on or as part of hoisting or winding system using acceptable non destructive testing (NDT) techniques.

ZWS 672:1998
Respiratory protective devices for escape – Self contained open-circuit compressed air breathing apparatus with full face mask or mouthpiece assembly-Requirements, testing and marking
Price Code: Gr. 7
31 pages
Based on EN 402: 1993

Refers to self-contained open circuit compressed air breathing apparatus with full face mask or mouthpieces assembly for escape.

ZWS 673:1998
Cereals and cereal products - Determination of ash
Price Code: Gr. 4
8 pages
Based on ICC Standards 104/ 1: 1990

Describes a method for the determination of ash in cereals and cereal products for human consumption.

ZWS 674:1998
Petroleum product – Determination of inorganic acidity – Colour indicator titration method
Price Code: Gr. 3
6 pages
Based on IP 182: 1993

Intended to provide a measure of the inorganic (strong) acid content of used and unused lubricating oils, fuel oils and petrolatums.

ZWS 675:1998
Wheat flour - Determination of total carbon dioxide
Price Code: Gr. 4
11 pages
Based AACC: Method 12.21: 1961

Describes a method for the determination of total carbon dioxide in prepared mixes and self-raising flours.

ZWS 676:1998
Code of practice for the application of pesticides in the food industry
Price Code: Gr. 8
50 pages
Based on SABS 0133:1977

Covers the methods of safe application of pesticides registered as suitable for use in food handling, food processing and catering establishments.

ZWS 677:1999
Wheat flour - Determination of particle size
Price Code: Gr. 3
5 pages
Based on AOAC test method 965: 1999

Specifies a method for determination of particle size of wheat flour.

ZWS 678:2013
Development, maintenance and management of ground water resources
Part 1: Glossary of Terms
Price Code: Gr.5
8 pages
Replaces ZWS 678.1:2009

Covers the terms and definitions applicable to water boreholes.

Part 2: The location and siting of water boreholes
Price Code: Gr. 6
11 pages
Replaces ZWS 678.2:2009

Covers requirements for the location and siting of water boreholes.Whenever a borehole is considered for conversion to a production borehole the relevant clauses of this Part of ZWS 678 shall apply.

Part 3: The design, construction and drilling of boreholes
Price Code: Gr 7
30 pages
Replaces ZWS 678.3:2009

Covers the requirements for the drilling design and construction water wells/ boreholes.

Part 4: Pumping test of water wells/boreholes
Price Code: Gr. 4
23 pages

Covers requirements for the pumping test of a water wells/borehole in order to obtain information about its possible long-term pumping rate.

Part 5: The design, selection and performance of pumping equipment for production wells/boreholes
Price Code: Gr. 7
38 pages

Covers the design, selection and performance o f pumping equipment intended for production boreholes.

Part 6: The installation and commission of pumping equipment for production wells/boreholes
Price Code: Gr. 7
15 pages

Covers the installation and commissioning of pumping equipment intended for production boreholes.

Part 7: The rehabilitation of water wells/boreholes
Price Code: Gr. 5
6 pages

Specifies methods to be applied for the rehabilitation of water boreholes.

Part 8: The management of water wells/boreholes
Price Code: Gr. 6
8 pages

Covers the design , selection and performance of pumping equipment intended for production boreholes.

Part 9: The decommissioning of water wells/boreholes
Price Code: Gr. 6
7 pages

Covers the methods to be applied for the decommissioning of all types of water boreholes to protect ground water resources.

ZWS 679:1999
Power lawn-mowers, lawn tractors, lawn and garden tractors, professional lawn mowers and lawn and garden tractors with lawn mowing attachments – Definitions, safety requirements and test procedures
Price Code: Gr. 8
72 pages
Based on ISO 5395: 1990
Replaces ZWS B4

Specifies safety requirements and test procedures applicable powered rotary and cylinder mowers.

ZWS 680:1998
Materials of insulated electric cables and flexible cords
Part 1:1999 Conductors
Price Code: Gr. 7
26 pages
Based on SABS 1411: Part 1: 1986, IEC 60228: 1978

Covers the requirements for fire classes of conductors in insulated electric cables and flexible cords.

Part 2:1999 Polyvinyl chloride (PVC)
Price Code: Gr. 7
13 pages
Based on SABS 1411: Part 11: 1987
Covers requirements for PVC components in insulated electric cables and flexible cords.

Part 3:1999 Elastomers
Price Code: Gr. 7
31 pages
Based on SABS 1411: Part 3: 1990

Covers the requirements for elastomer components in insulated electric cables and flexible cords.

Part 4:1999 Cross-linked polyethylene (XLPE)
Price Code: Gr. 3
6 pages
Based on SABS 1411: Part 4: 1984

Specifies the requirements for cross linked polyethylene (XLPE) insulation of electric cables.

Part 5:1999 Halogen-free materials
Price Code: Gr. 4
9 pages
Based on SABS 1411: Part 5: 1987

Specifies the requirements for non metal components (of electric cables and flexible cords) that do not contain halogens in their chemical composition.

Part 6:1998 Armour
Price Code: Gr. 4
8 pages
Based on SABS 1411: Part 6 1987

Covers requirements for three types of metal armour materials that are components of insulated electric cables and that provide protection against mechanical damage both during installation of cables and in services.

ZWS 681:2001
Water quality-Determination of atrazine and other nitrogen and phosphorus containing pesticides in water by gas chromatography with nitrogen-phosphorus detector
Price Code: Gr. 6
17 pages
Reprinted 2005

Describes a gas chromatographic (GC) method applicable to the determination of certain nitrogen and phosphorus containing pesticides in ground water and finished drinking water.

ZWS 682:1999
Water quality – Determination of organochlorine pesticides- Liquid-liquid extraction gas chromatographic method
Price Code: Gr. 6
21 pages

Based on Standard method for the examination of water and waste water method 66308B. Describes a liquid-liquid extraction gas chromatographic method for determination of organochlorine pesticides in water.

ZWS 683:2000
Water quality – Determination of N-Methylcarbamoyloximes and N-Methylcarbamates-Direct aqueous injection HPLC with post column derivatization
Price Code: Gr. 5
15 pages
Reprinted 2005

Describes a high performance liquid chromatographic (HPLC) method for the determination of certain N-Methylcarbomoyloximes and N - methylcarbamates in water.

ZWS 684:1998
Petroleum jelly (petrolatum)
Price Code: Gr. 4
10 pages
Based on SABS 1755:1997

Specifies requirements for refined petroleum jelly in 3 colour grades (white, snow-white and yellow) which is intended for use in pharmaceutical and cosmetic application.

ZWS 685:1998
Petroleum jelly – Determination of pH value
Price Code: Gr. 2
1 page
Based on SABS 1755: 1997

Describes the measurement of the pH of petroleum jelly.

ZWS 686:1998
Petroleum jelly – Determination of evaporation loss
Price Code: Gr. 3
5 pages
Based on SABS 175: 1997 (Clause 5.4)

Describes a method of determining evaporation loss of petroleum jelly.

ZWS 687:1998
Petroleum jelly – Determination of arsenic content – Gutzeit method
Price Code: Gr. 4
9 pages
Based on SABS 1755: 1997

Describe a method for the determination of arsenic content in petroleum jelly.

ZWS 688:1998
Petroleum jelly – Determination of oil dissociation
Price Code: Gr. 3
5 pages
Based on SABS 1755: 1997: (Clause 5.6)

Describes the method of determining oil dissociation of petroleum jelly.

ZWS 689:1998
Petroleum products – Determination of drop melting point
Price Code: Gr. 4
7 pages
Identical to IP 133: 1994

Describes a method for the determination of the drop melting point of petroleum products.

ZWS 690:1998
Petroleum products – Determination of cone penetration
Price Code: Gr. 4
7 Pages
Identical to IP 179: 1994

Describes the method for measuring with a penetrometer, the penetration of petroleum products as an empirical measure of consistency.

ZWS 691:1998
Petroleum products – Determination of acidity and neutralisation value – colour indicator titration method
Price Code: Gr. 9
10 pages
Based on IP 139: 1994

Specifies method for the determination of the acidity of unused lubricating oil, fuel oil and petroleum.

ZWS 692:1998
Petroleum products – Determination of sulfated ash
Price Code: Gr. 4
9 pages
Based on IP 163: 1994

Describes a method for determining the sulfated ash from un-used lubricating oils containing additives from concentrates used in compounding.

ZWS 693:1998
Petroleum products – Determination of matter insolubles in toluene by membrane filtration method
Price Code: Gr. 4
9 pages
Based on ASTM D4055: 1981

Describes a method for the determination of toluene insolubles by particles exceeding 0.8 um in new and used lubricating oils.

ZWS 694:1998
Petroleum products – Determination of lead content – Dithizone extraction colorimetric method
Price Code: Gr. 4
12 pages
Based on IP 224: 1994

Describes a method for the determination of trace amounts of lead in petroleum products in the range ug/1 to mg/1.

ZWS 695:1998
Petroleum products – Determination of saponification number – titration method
Price Code: Gr. 4
11 pages
Based on IP 136: 1994

Describes a method for test for the determination of constituents in petroleum products that will saponify under the conditions of the test.

ZWS 696:1998
Petroleum jelly – Determination of light absorption of a 0.05 % (by mass fraction) solution in trimethyl pentane or iso-octane at 290 nm maximum
Price Code: Gr. 3
5 pages
Based on British Pharmacopoeia Volume 1:1993

Describes the method for the determination of light absorption of a 0.05 % (by mass fraction) solution for petroleum jelly in either trimethyl pentrane or iso-octane at 290 nm maximum.

ZWS 697:1998
Petroleum products – Determination of polycyclic aromatic hydrocarbons (PCAs)
Price Code: Gr. 3
6 pages
Based on British Pharmacopoeia Volume 1:1993

Describes a method for the determination of polycyclic aromatic hydrocarbons in petroleum products.

ZWS 698:1998
Petroleum products – Determination of colour – lovibond tintometer method
Price Code: Gr. 4
11 pages
Based on IP 17: 1994

Describes a method for determining the colour of practically all petroleum products (dyed or undyed) except black oils and bitumen.

ZWS 699:2000
Waste water – Determination of residual organo phosphorus pesticides gas – Gas chromatographic method
Price Code: Gr. 4
10 pages
Reprinted 2005

Describes a method for the determination of residual chromatographic pesticides in waste water using gas chromatography.

ZWS 700:1998
Protective helmets for motor cyclists
Price Code: Gr. 7
35 pages
Replaces Z16: 1971
Based on SABS 799: 1983

Covers the requirements for the general design, construction, performance, marking, labelling and testing of protective helmets for use by motor cyclists on the roads.

ZWS 701:1999
Radiological protection in dentistry
Price Code: Gr. 4
11 pages
Reprinted 2010

Based on International Commission on Radiological Protection (ICRP)Publication of 1991, the 1990 Recommendationof the ICRP, ICRP Vol. 21 .Covers requirements for radiological protection in dental practice.

ZWS 702
The use of radioactive materials in medical practice
Part 1:2000 Unsealed sources
Price Code: Gr. 6
20 pages
Reprinted 2010

Provides guidance to users of unsealed radioactive materials in hospitals and medical laboratories.

Part 2:2000 Sealed sources
Price Code: Gr. 4
10 pages
Reprinted 2010

Contains guidance on the use of sealed or other solid sowas for diagnostic purposes.

ZWS 703:2000
Radiation protection in veterinary radiology
Price Code: Gr. 6
24 pages
Reprinted 2010

Based on international basic safety standards for protection against ionizing radiation and for the safety of radiation sources, safety series no 151 and Radiation protection in veterinary radiology, Irish Nuclear Energy Board Code of Practice. Specifies requirements for radiation protection in veterinary practice.

ZWS 704:2000
Radioactive waste management
Price Code: Gr. 7
40 pages
Reprinted 2010

Covers the management of liquid (aqueous and organic) solid and gaseous radioactive waste and spent sealed sources at the users previews.

ZWS 705:2000
The safe use of X-rays in medical diagnosis
Price Code: Gr. 8
Reprinted 2010
68 pages
Based on the National Radiation laboratory of new Zealand Specification

Covers the safe use of X-rays in medical diagnosis.

ZWS 706:2001
Canned ox tongue in gelatine and stewed steak in gravy
Price Code: Gr. 7
37 pages
Based on SABS 1675: 1997

Specifies requirements for the manufacture, production processing and treatment of canned ox tongue in gelatine and stewed steak in gravy in order to ensure a safe, sound and wholesome product.

ZWS 707:1999
Refined sugar - Determination of colour and turbidity
Price Code: Gr. 4
7 pages

Based on Laboratory manual for South Africa Sugar Factories
Specifies a method for determination of colour of refined sugar for household use.

ZWS 708:1999
Refined sugar - Determination of grain size
Price Code: Gr. 3
5 pages
Based on Laboratory manual for South Africa Sugar factories

Specifies method for the determination of grain size in refined sugar.

ZWS 709:1998
Bow and skewness in woven textile fabric
Price Code: Gr. 3
6 pages
Identical to SABS Method 91: 1982

Specifies a method for the determination of bow and skewness in woven textiles fabrics.

ZWS 710:1999
Fluidity of cotton and certain cellulosic man-made fibres in cuprammonium solution (Modified Method)
Price Code: Gr. 5
11 pages
Based on SABS Method 115: 1980

Specifies a method for the determination of the fluidity of cotton and certain man-made fibres in cuprammonium solution.

ZWS 711:2000
Water quality – Determination of chlorinated phenoxy acids and other acidic herbicides by gas chromatography
Price Code: Gr. 6
19 pages
Based on method 6251B for Examination of water and wastewater(19thEd)

Describes the method for the determination of chlorinated phenoxy acids and other acidic herbicides by gas chromatography.

ZWS 712:1999
Newsprint
Price Code: Gr. 4
8 pages
Based on MS 855: 1983

Specifies requirements for newsprint, suitable for printing duplicating and pen and ink writing.

ZWS 717:2008
The manufacture and erection of timber trusses
Price Code: Gr. 9
107 pages
Based on SANS 10243:04

Gives guidance on the manufacture, erection and bracing of timber roof trusses, including nail plated trusses and bolted trusses with lapped members.

ZWS 718:2017
Blankets suitable for use in the public sector
Price Code: Gr. 5
6 pages
Standard specifies requirements for the synthetic fibre blankets suitable for use in the public sector. Requirements for adults', children's and infants' blankets are specified

ZWS 719:2012
Biodiesel fuel blend stock (B100) for middle distillate
Price Code:Gr. 7
9 pages
Identical to ASTM 6751:2000
Amended by AMD 674:2014

Covers four grades of biodiesel (B100) for use as a blend component with middle distillate fuels.

ZWS 720:2003
Meat and meat products – Determination of nitrates and nitrites – Xylenolmethod
Price Code: Gr. 3
5 pages
Based on AOAC official methods of analysis: 1990

Describes the determination of nitrates and nitrites in meat and meat products.

ZWS 721:2001
Meat and meat products – Determination of nitrogen and protein – Block digestion method
Price Code: Gr. 3
5 pages
Based on AOAC

Describes the method for the determination of nitrogen and protein in meat and meat products.

ZWS 722:1998
Water quality – Determination of sodium by atomic absorption spectrometry
Price Code: Gr. 4
8 pages
Based on ISO 9964: Part 1: 1993

Specifies a method for the determination of dissolved sodium (Na) by flame atomic absorption spectrometry (AAS). It is intended for the analysis of raw and drinking water.

ZWS 723:1998
Water quality – Determination of phenol index-4-aminoantipyrine spectrometric method after distillation
Price Code: Gr. 6
17 pages
Identical to ISO 6439:1990

Specifies methods of determining the phenol index in drinking water and waste waters.

ZWS 725:1999
Ostrich feed
Price Code: Gr. 4
8 pages

Specifies the requirements for ostrich feed.

ZWS 728:1999
Wheat flour - Determination of colour
Price code: Gr. 2
4 pages
Based on Henry Simon and the Kent Jones test methods

Covers the determination of colour of wheat flour by the Henry Simon or the Kent Jones method.

ZWS 729:1999
Wheat flour - Determination of bran mass fraction
Price Code: Gr. 3
5 pages

Specifies a method for determination of bran mass in wheat flour.

ZWS 730:2015
The manufacture of sanitary pads
Price Code: Gr. 7
24 pages

Covers the manufacturing and performance requirements for sanitary pads used during menstruation.

ZWS 731:1999
Woodcutting bandsaw blades
Price Code: Gr. 5
13 pages
Based on BS 4411: 1969

Relates to the terminology, manufacture, properties, dimensions, and tolerances of both "narrow" and "wide" bandsaw blades, either supplied in coil or cut to length joined ready for use.

ZWS 732:2001
Electrical cables – Flexible cords and flexible cables
Price Code: Gr. 7
41 pages
Based on SABS 1574:1992

Specifies the characteristics of single-core flexible insulated wires and multcore flexible cords and flexible cables of rated operating voltage up to and including 600 V to earth and 1 000 V between conductors and intended for use with electrical appliances. Insulating and sheathing materials of both PVC and rubber are covered.

ZWS 733:2000
Shaped refractory bricks
Price Code: Gr. 5
16 pages
Based on SABS 35: 1982

Covers four categories of shaped refractory bricks intended for use as a construction material or lining.

ZWS 734:2000
Leaded petrol
Price Code: Gr.5
13 pages
Based on SABS 299: 1995

Species an inland grade of leaded petrol with research octane number (RON) of 93 suitable for use in spark-ignition internal-combustion engines other than aviation piston engines.

ZWS 735:2000
Refractory bricks – Determination of dimensions
Price Code: Gr. 3
13 pages
Based on SABS 299: 1995

Specifies methods for determining the dimensions of refractory bricks.

ZWS 736:2000
Refractory bricks – Determination of warpage and squareness
Price Code: Gr. 4
8 pages

Specifies method for determination of warpage and squareness of refractory bricks.

ZWS 738:2000
Refractory bricks – Determination of bulk density, bulk volume, apparent porosity and apparent relative density
Price Code: Gr. 4
11 pages

Specifies a method for determination of bulk density, bulk volume, apparent porosity and apparent relative sensity of refractory bricks.

ZWS 739:2000
Refractory bricks – Determination of the pyrometric cone equivalent
(refractoriness)
Price Code: Gr. 4
8 pages

Specifies a method for determination of the pyrometric cone equivalent (refractoriness) of refractory bricks.

ZWS 740:2000
Shaped refractory bricks – Determination of permanent changes in dimensions on heating
Price Code: Gr. 4
10 pages

Specifies a method for determining the permanent change in dimensions on heating.

ZWS 741:2000
Shaped refractory bricks – Determination of cold crushing strength
Price Code: Gr. 4
8 pages

Specifies a method for determination of cold crushing strength of shaped refractory bricks.

ZWS 742:2000
Precast concrete post and panel walls
Price Code: Gr. 6
17 pages
Based on SABS 1372: 1983
Reprinted 2004

Covers precast concrete components of the following types for use in free standing posts (a) Posts (b) Plain panels (c) Decorative panels.

ZWS 743:2000
Paper and board – Determination of thickness and apparatus – bulk density
Price Code: Gr. 5
15 pages
Technically identical to ISO 534: 1988
Reprinted 2004

Specifies two methods of measuring the thickness of paper and board and of calculating the apparent bulk.

ZWS 744:2003
Installation of solar water heaters
Price Code: Gr. 9
92 pages
Based on AS/NZS 3500: 4:2: 1997

Sets out the requirements for the installation of domestics-type water heaters using portable water. Includes aspects of the installation from and including the valve(s) on cold water inlet to the isolation valve fitted immediately prior to the point at which the system is connected to the hot water reticulation.

ZWS 746:2004
Fruit jams, jellies and marmalades
Price Code: Gr.7
26 pages
Replaces ZWS S4: 1968

Covers the manufacture, production, processing or treatment of fruit jams, fruit jellies and marmalades.

ZWS 747:2003
Canned fruits
Price Code: Gr. 8
70 pages
A revision of ZWSS7: 1971
Amended by MD597:1999

Specifies the manufacture, production, processing or treatment of canned fruits of different types and grade.

ZWS 748:2021
Vegetable cooking oil
Price Code: Gr. 4
9 pages
Replaces ZWSS22: 1969
Reprinted 2004
Second Revision of ZWS 748:2001

This Standard applies to the vegetable oils described in Clause3.1 presented in a state for human consumption. Provision is also made for mixed oil, containing any of the above pure oils in any proportion. Where this Zimbabwe Standard conflicts in any way with the relevant Government Acts and Regulations and the local Municipal By-laws, the requirements of the Government Acts and Regulations and of the local. Municipal By-laws take precedence over those in this standard.
Note. The titles of the publications referred to in this standard are listed in the Foreword.

ZWS 749:2024
Requirements for a Hazard Analysis and Critical Control Point (HACCP) system
Price Code: Gr. 9
27 pages
Based on SABS 0330: 1999 and Codex guidelines on HACCP
First published 2001, as ZWS 749,
First reprinted 2004, as ZWS 749,
First revision 2009, as ZWS 749,
Reconfirmed 2018, as ZWS 749,
Second revision 2023, as ZWS 749
Third revision 2024, as ZWS 749.

This Zimbabwe Standard specifies the requirements for a HACCP system for the development, implementation and effective management of a functional process hazard control programme in the food supply chain to enhance food safety. Where this Zimbabwe Standard conflicts in any way with the relevant Government Acts, Regulations and Local Municipal By-laws, the requirements of the Government Acts and Regulations, and of the local Municipal By-laws take precedence over those in this standard.

ZWS 750:2002
Absorbent cotton wool
Price Code: Gr. 4
9 pages
Based on SABS 228: 2000
Specifies requirements for the grades of absorbent cotton wool.

ZWS 751:2024
Automotive diesel fuel
Price Code: Gr. 4
5 pages
Based on SANS 342
First published 2000, as ZSW 751,
First reprint 2012, as ZWS 751,
First revision 2012, as ZWS 751,
Second reprint 2017, as ZWS 751,
Second revision 2024, as ZWS 751

This Zimbabwe Standard specifies one grade of automotive diesel fuel suitable for use in compression ignition engines including high-speed engines.

ZWS 754:2012
Window sills and copings
Price Code: Gr. 6
22 pages

Specifies the requirements for window sills and copings of precast concrete and clayware.

ZWS 755:2002
Knee-high stockings and ankle socks
Price Code: Gr. 4
11 pages
Based on SABS 1118-9: 2000

Covers the requirements for two types of knee-high stockings and two types of ankle socks for school wear.

ZWS 756:2002
Men's and women's hose for institutional use
Price Code: Gr. 5
16 pages
Based on SABS 1382 Part 1: 1995

Specifies requirements for women's and men's hose.

ZWS 758:2008
Use of masonry- Structural use of unreinforced masonry
Price Code: Gr. 9
99 pages

Gives recommendations for the structural design of unreinforced mansonry constructed of brick masonry, block mansonry, mansory of square dressed natural stone and random rubble mansory.

ZWS 759:2001
Dried salted fish
Price Code: Gr. 4
11 pages
Based on KS 05:424: 1985

Specifies requirements and methods of test for dried salted fish.

ZWS 761:2000
Burnt clay paving units
Price Code: Gr.7
16 pages
Reprinted 2004

Specifies the requirements for burnt clay pavers intended for use in the construction of paved surfaces subject to vehicle loading and pedestrian traffic.

ZWS 762:2017
Steel door frames
Price Code: Gr.5
17 pages
Based on SANS 1129:2002
Reprinted 2004

This specification covers steel door frames (with or without fanlight frames) for walk-through doors.

ZWS 763:1999
Peanut butter
Price Code: Gr. 4
12 pages
Replaces S31: 1971
Amended by 602:1999
Reprinted 2004

Covers the manufacturing, production, processing or treatment of peanut butter.

ZWS 764:2001
Cables and conductors – Dimensions of the components of electric cables – flexible cables and flexible cords
Price Code: Gr .5
5 pages
Based on SABS Method495: 1990

Specifies a method of test for determining the dimensions of the components of electric cables, flexiblecords and flexible cables.

ZWS 765:2001
Cables and conductors – Flexing test on flexible cords
Price Code: Gr. 3
7 pages
Based on SABS Met hods 515: 1980

Specifies a method of test for flexing on flexible cords.

ZWS 766:2001
Cables and conductors – Kink resistance of circular flexible cords
Price Code: Gr. 4
10 pages
Based on SABS Method 516: 1990

Specifies a method of test for kink resistance of circular flexible cords.

ZWS 767:2001
Cables and conductors – Conductor resistance
Price Code: Gr. 4
8 pages
Based on SABS Method 523:1992

Specifies a method of testing the conductor resistance of cables.

ZWS 768:2001
Cables and conductors – Alternating current spark test on electric cables and cords
Price Code: Gr.3
5 pages
Based on SABS Method 524: 1980

Specifies a method of determining the alternating current spark test on electric cables and conductors.

ZWS 769:2001
Cables and conductors – Power frequency voltage test on electric cables
Price Code: Gr. 3
6 pages
Based on SABS Method 525: 1980

Specifies a method of testing the power frequency voltage on electric cables.

ZWS 770:2001
Cables and conductors – Dielectric resistance on electric cables
Price Code: Gr. 3
5 pages
Based on SABS Method 526: 1980

Specifies a method of testing the dielectric resistance of electric cables.

ZWS 771:2001
Cables and conductors – Heat resistance of cables and flexible cords
Price Code: Gr. 3
5 pages
Based on SABS Method 1204: 1992

Specifies a method for testing the electrical and mechanical integrity of a cable or flexible cord when in direct contact with a hot surface while under electrical high tension.

ZWS 772:2001
Cables and conductors – flexing test for extensible leads
Price Code: Gr. 4
7 pages
Based on SABS 1205: 1996
Specifies a method of testing the ability of extensible lead to withstand flexing.

ZWS 773:2001
Cables and conductors – Wear resistance of braided and unkinkable cords
Price Code: 3
5 pages
Based on SABS Method 1200: 1996

Specifies a method of testing the ability of braided and unkinkable cords to withstand wear.

ZWS 774:2001
Cables and conductors – Bending test for highly flexible cords such as tinsel cords
Price Code: Gr.3
5 pages
Based on SABS Method 1207: 1992

Specifies a method for testing the ability of highly flexible cords to bend.

ZWS 775:2001
Cables and conductors – Extension test for extensible leads
Price Code: Gr. 3
5 pages
Based on SABS Method 1208: 1992
Specifies a method of testing the extensibility of extensible leads.

ZWS 776:2001
Cables and conductors - Overall dimensions and ovality of electric cables and cords
Price Code: Gr. 3
5 pages
Based on SABS Method 1209: 1992

Specifies a method determining the overall dimensions and ovality of electric cables and cords.

ZWS 777:2001
The Safety of water treatment chemicals for use in the food industry
Price Code: Gr. 4
12 pages
Based on SABS 1822: 2000

Sets minimum requirements for the safety of water treatment chemicals, intended for use in portable/process water or boiler feed waters, where the treated water or steam produced might come into contact with food or food products.

ZWS 778:2012
Cleaning chemicals for use in the food industry
Price Code: Gr. 5
15 pages
Based on SABS 1828: 2000
Reprinted 2009

Specifies general requirements for cleaning chemicals intended for use in the food industry. Sets minimum requirements for the safety of such cleaning materials, which are intended for use on food processing equipment and might come into contact with food products.

ZWS 779:2001
Tobacco wrapping paper (moisture-barrier coated)
Price Code: Gr. 4
8 pages
Specifies tobacco wrapping paper coated in such a way as to effectively prevent the egress of moisture (i.e. loss of tobacco condition during transit).

ZWS 780:2001
Wooden clothes pegs
Price Code: Gr. 5
12 pages
Based on SABS 1397:1983

Covers the material, finish, dimensions and performance of wooden clothes pegs.

ZWS 781:2001
Safety matches
Price Code: Gr. 7
25 pages

Specifies requirements for the safety, performance, classification and marking of matches, together with their match containers.

ZWS 782:2003
Pasteurized milk and pasteurized homogenized milk
Price Code: Gr.4
7 pages
Based on MS 410: 1983

Described the requirements and the methods of sampling and testing for pasteurized milk pasteurized homogenized milk intended for human consumption.

ZWS 783:2005
Carbon steel welded horizontal cylindrical storage tanks
Price Code: Gr. 6
20 pages
Based on BS 2594: 1975

Specifies requirements for design and construction of carbon steel fusion welded horizontal cylindrical storage tanks with dished and flanged ends for the storage of liquids. It includes both above – ground tanks with saddle supports and underground tanks.

ZWS 784:2001
Adhesive for fixing ceramic tiles
Price Code: Gr. 7
42 pages

Specifies performance requirements for organic-based adhesive, cement – based adhesives and cement-based mortars containing organic additives used as adhesives for the installation of ceramic wall and floor tiles and mosaics.

ZWS 785:2010
Electrical Security Installations – Electric Security Fences (Non – Lethal)
Price Code: Gr. 7
25 pages
Based on SANS 10222-3: 2003

Gives the basic requirements for the planning, erection, installation and commissioning of electric fences. The requirements of this standard are in line with those in international electric fence standards but this standard gives additional requirements for situations that are unique to Zimbabwean conditions.

ZWS 786:1973
Sizes of paper
Price Code: Gr. 6
18 pages
Reprint of ZWS P1: 1973

Covers trimmed sizes of paper used for administrative, commercial, and technical purposes and for certain classes of printed matter.

ZWS 787:2003
Skimmed milk powder/low fat dried milk
Price Code: Gr. 3
6 pages
Based on MS 760: 1992

Specifies the requirements and methods of sampling and tests for skimmed milk powder/ low-fat dried milk, intended for human consumption.

ZWS 788:2003
Whole milk powder
Price Code: Gr. 3
6 pages
Based on Codex standard no. 207: 1999

Specifies the requirements and methods of sampling and tests for whole milk powder, intended for human consumption.

ZWS 789:2003
Sterilized milk
Price Code: Gr. 3
6 pages
Based on SABS 1678: 1997

Specifies the requirements and the methods of sampling and testing for sterilized milk intended for human consumption

ZWS 790:2003
Ultra high temperature milk
Price code: Gr. 4
7 pages
Based on MS 411: 1986

Specifies the requirements for milk and homogenized milk which has been treated by the ultra high temperature method, either by the direct aulinary steam injection into the milk or by indirect heating.

ZWS 791:2015
Packaged drinking water other than natural mineral water
Price Code: Gr. 7
10 pages

The standard specifies the description, treatment, testing, packaging and labelling of water that is not natural mineral water. The water maybe offered as packaged non-carbonated(still) water or as packaged carbonated (sparkling) water with or without permitted substances

ZWS 792:2015
Yoghurt (yogurt)
Price Code: Gr. 4
5 pages
Based on codex alimentarius standard A-11 (a) 1975
First published 2003
First revision 2015

Specifies the requirements and the methods of sampling and testing for yoghurt.

ZWS 794:2016
Cultured milk
Price Code: Gr. 4
3 pages
Based on codex alimentarius standard A-11 (a) 1975
First revision 2016

Specifies the requirements and methods of sampling and testing for cultured milk.

ZWS 795:1970
Genuine pure soap
Price Code: Gr. 3
5 pages

Applies to genuine pure soap such as is supplied in bars, cakes or tablets to the general public.

ZWS 796:2003
Ice-creams and ice cream mixes
Price Code: Gr. 4
9 pages
Based on standard no: 137: 1983

Specifies the requirements and the methods of testing and for sampling of ice-cream and mixes in liquid or powder form. Also applies to ice-cream part of foods which contain ice-cream as an ingredient.

ZWS 797:2003
Cream (for direct consumption)
Price Code: Gr. 4
8 pages
Based on Codex Alimentanus standard no. A-9: 1976

Specifies the requirements for cream, half-cream, whipping cream, whipped cream subjected to pasteurization, sterilization, ultra-high temperature (UHT) or ultra pasteurifzation intended for direct consumption.

ZWS 798:2003
Butter
Price Code: Gr. 4
7 pages
Based on Codex standard A-1: 1971

Specifies the requirements and methods of sampling and testing of butter intended for further processing.

ZWS 799:2003
Condensed milk
Price Code: Gr. 4
7 pages
Based on MS 25: 1983

Specifies the requirements of methods of analysis of condensed milk.

ZWS 800:2003
Cheese
Price Code: Gr.4
8 pages
Based on Codex Alimentarius standard A- 6: 1996

Applies to all products intended for direct consumption or further processing in conformity with the definition of cheese in the standard.

ZWS 802:2004
Edam cheese
Price Code: Gr. 3
6 pages
Based on Codex Alimentarius standard C- 4: 1966

Prescribed the requirements and methods of sampling and testing for Edam cheese intended for human consumption.

ZWS 803:2004
Parmesan cheese
Price Code: Gr. 4
7 pages
Based on Codex Alimentarius standard C- 1: 1968

Specifies the requirements and methods of sampling and testing for Parmesan cheese intended for human consumption.

ZWS 804:2003
Cottage cheese and cream cheese
Price Code: Gr. 4
7 pages
Based on Codex Alimentarius standard C -16: 1968

Specifies the requirements for cottage cheese and cream cheese.

ZWS 805:2004
Hard cheese
Price Code: Gr. 4
7 pages
Based on Codex Alimentarius standard C -16: 1999

Prescribes the requirements and the methods of sampling and testing for hard cheese intended for human consumption.

ZWS 806:2021
Hazardous Waste Management
Price Code: Gr. 8
10 pages
First Revison of ZWS 806:2012

Specifies the minimum requirements for hazardous waste management (may also be applied in some part to the management of waste management of waste in general). It sets out the required procedures and practice on the safe management of hazardous waste.

ZWS 808:2002
Method of testing materials for resistance to fungal growth – Resistance of dried or cured adhesives and glues to fungal growth
Price Code: Gr. 3
6 pages
Based on AS 1157: Part 10: 1979

Described procedures for determining the resistance of water resistant and water sensitive adhesives and glues to fungal growth.

ZWS 809:2002
Adhesives – Glossary of terms used in the adhesives industry
Price Code: Gr. 7
39 pages
Based on As 1309: 1974

Covers glossary of terms in the adhesives industry.

ZWS 810:2002
Ceramic floor and wall tiles– Determination of water absorption
Price Code: Gr. 3
5 pages
Based on EN 99: 1991

Defines a method of test for determining the water absorption of ceramic tiles.

ZWS 812:1972
Gypsum plasterboard (metric units)
Price Code: Gr. 4
11 pages
Based on SABS 266: 1971
Reprint of ZWS A42: 1972
Reprinted 2001
Reprinted 2004

Covers gypsum plasterboards for use as a building board in the interior buildings.

ZWS 813:1980
Portable fire extinguishers – Hand – operated fire extinguishers for aircraft and other purposes
Price Code: Gr. 4
11 pages
Reprint of ZWS A31: Part 5: 1974
Reprinted 2001
Reprinted 2004

Specifies performance requirements for hand-operated portable fire extinguishers for use in aircraft and other forms of transport.

ZWS 814:1968
Concrete pipe fittings including manholes and inspection covers
Price Code: Gr. 5
14 pages
Reprint of ZWS A29: 1968
Reprinted 2001

Covers fittings, including concrete collars and concrete junctions suitable for use with concrete pipes to ZWS 315, together with manholes and concrete inspection chambers for drainage purposes.

ZWS 815:1974
Materials for soil stabilization
Price Code: Gr. 5
12 pages
Reprint of ZWS A19 1974
Reprinted 2001

Covers two types of materials, hydrated (high –calcium content) lime and cement, those being the two main materials presently used in soil stabilization.

ZWS 816:1968
Precast reinforced box culverts
Price Code: Gr. 5
16 pages
Reprint of ZWS A28: 1968
Reprinted 2001

Applies to precast reinforced concrete rectangular box culverts primarily intended for conveying highway vehicle loadings.

ZWS 817:2013
Coffins and caskets
Price Code: Gr. 6
19 pages

Covers the requirements for the materials, construction, basic dimensions, finish and performance of the following two types (each of six classes) of coffins/caskets for human remains.

ZWS 818:1964
Building limes
Price Code: Gr. 6
20 pages
Reprint of ZWS A15: 1963
Reprinted 2002

Covers four grades of hydrated lime and two grades of quick-lime intended for use in plastering and rendering.

ZWS 819:2010
Toothpaste
Price Code: Gr. 6
21 pages
Based on SABS 1302:2008

Covers the requirements and test methods for toothpastes(Flouridated and non-flouridated) intended for use with a tooth brush in the cleaning of natural teeth to promote oral hygiene.

ZWS 820:1968
Silver - plated copperware
Price Code: Gr.5
12 pages
Amended by MD 74:1968
Reprinted 2008

Specification lays down requirements for copperware electroplated with silver primarily intended for domestic use but excluding cutlery.It does not cover design except as far as serviceability is concerned.

ZWS 822:1969
Damp-proofing of buildings
Price Code: Gr. 5
14 pages
Based on BS CP 102
Reprint of ZWS CA6: 1969
Replaces ZWS H1:1962
Reprinted 2001

Sets out methods and makes recommendation for the damp-proofing of walls and floors at or near ground level.

ZWS 823:1975
Underfeed stokers (ram or screw type)
Price Code: Gr. 4
8 pages
Reprint of ZWS B1: 1967
Reprinted 2001

Specifies requirements for underfeed stokers of the ram or screw type, rated up to 550 kg or coal per hour and primarily intended for heating tobacco curing barns.

ZWS 824:2012
Files and Rasps
Part 1 Rasps and engineer's file
Price Code: Gr.7
33 pages
Reprinted 2012

Relates to the manufacture,dimensions and testing of the following patterns of rasps and engineer's files.

ZWS 825:1971
Steel tubes for general engineering purposes
Price Code: Gr. 5
11pages
Reprint of ZWS B3 1971
Reprinted 2002

Covers the dimensional, material and mechanical requirements of plain carbon steel tubes not exceeding 0.165 m in outside diameter for general engineering purposes.

ZWS 826:1973
Industrial open type metal flooring and stair treads
Price Code: Gr. 5
14 pages
Reprint of ZWSB9 1973
Amended by MD 258: 2002
Reprinted 2002

Specifies requirements for the design, construction and testing of industry open metal flooring panels and stair treads.

ZWS 827:1960
Mastic asphalt for roads and footways (limestone aggregated)
Price Code: Gr. 4
10 pages
Reprint of A4 1960
Based on BS 1447: 1948
Reprinted 2001

Gives requirements for mastic asphalt with limestone aggregate for roads and footways.

ZWS 828:2002
Dimensions of hosiery
Price Code: Gr. 2
4 pages
Based on SABS Method 369: 1973

Specifies a test method for dimensions of hosiery.

ZWS 829:1973
Rubber reel hose for fire fighting purposes
Price Code: Gr. 8
8 pages
Reprint of ZWS A26: 1971
Based on BS 3169: 1978
Reprinted 2001

Specifies requirements for materials, construction and dimension for four types of rubber reel hose of 19 mm internal diameter for the fighting purposes.

ZWS 830:1979
Glazing putty for wood and steel sashes
Price Code: Gr.5
14 pages
Reprint of ZWS A24: 1967
Based on SABS 680: 1959
Reprinted 2002

Covers two types of putty for glazing window frames.

ZWS 831:2003
Cream powder
Price Code: Gr. 4
6 pages
Based on Codex standard 207: 1999

Specifies the requirements and methods of sampling and testing for cream powder intended for human consumption.

ZWS 832:1968
Distribution miniature circuit-breaker boards for low and medium voltages
Part 1: Single phase boards (8OA max incoming load)
Price Code: Gr. 4
11 pages
Reprint of ZWS C9: Part 1: 1968
Reprinted 2002

Relates to single –phase distribution boards using miniature circuit breakers intended for use in alternating current electricity distribution systems.

ZWS 833:1971
Tubular steel poles
Price Code: Gr. 4
10 pages
Amended by MD 650: 2003
Reprint of ZWS C14: 1971
Reprinted 2002

Covers tubular steel poles and fittings for telephone and electric supply lines and similar purposes

ZWS 834:1972
Enamelled copper conductors (polyvinyl) acetal base with high mechanical properties
Part 1: Round wire
Price Code: Gr. 7
36 pages
Reprint of ZWS C15: 1972
Reprinted 2002

Specifies requirements and dimensions for round copper wire covered with a synthetic enamel with high mechanical properties based on a vinyl acetal resin.

ZWS 835:1971
Three-phase induction motors
Price Code: Gr. 7
40 pages
Reprint of ZWS C17: 1971
Reprinted 2003

Covers three phase alternating current induction motors of rating not exceeding 150 kW 1000 r.p.m for alternative voltages not exceeding 660 V between lines at a frequency of 50 Hz.

ZWS 836:1972
Electric kettles and similar appliances
Price Code: Gr. 7
26 pages
Reprint of ZWS C18: 1972
Reprinted 2002

Covers electrical kettles and similar portable electrical appliances for heating water and non-corrosive aqueous solutions intended for operation at voltages not exceeding 250 V to earth and having current ratings not exceeding 15 A.

ZWS 837:1972
Electrically-heated laboratory drying ovens
Price Code: Gr. 4
11 pages
Reprint of ZWS C19: 1972
Based on BS 2648: 1955
Reprinted 2002

Specifies the performance requirements of electrically heated laboratory ovens used for the determination of moisture by drying within the temperature range 95 ºC to 110ºC.

ZWS 838:1972
Bottle coolers
Price Code: Gr. 6
18 pages
Reprint of ZWS C20: 1972
Reprinted 2002

Refers to refrigerated cabinets designed for storage and display of soft drink at temperature between 5 and 10 ºC.

ZWS 839:1970
Exhaust silencers for passenger cars
Price Code: Gr. 6
7 pages
Reprint of ZWS D6: 1970
Reprinted 2002

Covers the basic constructional requirements and materials used in the manufacture of exhaust silencers for passenger motor cars.

ZWS 840: 2002
Conditioning of textiles and standard temperature atmosphere for determining their physical and mechanical properties (metric units)
Price Code: Gr. 2
3 pages
Based on SABS Method 70: 1972

Describes a method for conditioning of textiles.

ZWS 841:1972
Safety razor blades
Price Code: Gr. 4
10 pages
Reprint of ZWSS36: 1972
Reprinted 2002

Set out the requirements for two qualities of safety razor blades.

ZWS 842:1971
Flexible vinyl flooring
Price Code: Gr. 6
19 pages
Reprint of ZWS A45: 1971
Amended by AM 649:2003
Reprinted 2002

Covers two thickness of flexible vinyl flooring (single –ply and laminated) in the form of sheeting and straight-sided tiles).

ZWS 843:1964
Internal plastering on solid ground
Price Code: Gr. 6
18 pages
Reprint of ZWS CA5: 1964
Reprinted 2002

Lays down recommendations for the proportioning of normal types of plaster and the application of the plaster or internal background.

ZWS 844:2014
Paper serviettes/napkins
Price Code: Gr. 3
7 pages
Based on KS 2000:2007

Specifies requirements and test methods for paper serviettes/napkinsin sheet form for hygienic purposes.

ZWS 845:1971
Reflex –reflecting vehicle number plates
Price Code: Gr. 6
18 pages
Reprint of ZWS D8 1971
Reprinted 2002

Specifies requirements for reflex-reflecting number plates for fitting to vehicles.

ZWS 846:1973
Tobacco tying twine
Price Code: Gr. 3
6 pages
Reprint of ZWS N10: 1973
Reprinted 2002

Covers three tobacco tying twine.

ZWS 847:1972
Limestone flour for use in animal feeding stuffs
Price Code: Gr. 4
11 pages
Reprint of ZWS N8: 1972
Reprinted 2002

Covers the chemical composition, sampling, packing, marking and methods of test for limestone flour for use in animal feeding stuffs.

ZWS 848:1973
Portable and mobile screw conveyers for agricultural use
Price Code: Gr. 4
11 pages
Reprint of ZWS N9: 1973
Reprinted 2002

Covers requirements for portable and mobile screw conveyors of the tubular type constructed of mild steel.

ZWS 849:1969
Knapsack sprayers
Price Code: Gr. 5
15 pages
Amended by MD 649: 2003
Reprint of ZWS N6: 1969
Reprinted 2002

Applies to knapsack sprayers equipped with hand operated pump, pressure containerand discharge line with a cut off device.

ZWS 850:1969
Solid copperware
Price Code: Gr. 3
4 pages
Reprint of ZWS H5: 1969
Reprinted 2002

Lays down requirements for solid copperware primarily intended for domestic use.

ZWS 851:2002
Cane Spirit and Vodka
Price Code: Gr 3
5 pages
First reprint of CAS S28:2002
Reprinted 2009

Covers quality of alcohol content, sweetening chemical, physical, packaging and marking requirements for canned spirit and vodka

ZWS 853:1974
Beehives
Price Code: Gr. 5
15 pages
Reprint of ZWS N4: 1974
Reprinted 2002

Give the dimensions essential to secure interchangeability of the parts of beehives of the langsroth design.

ZWS 854:1974
Coated knitted fabrics for upholstered furniture (PVC) types
Price Code: Gr. 5
11 pages
Reprint of ZWS L 10 1972
Reprinted 2002

Specifies requirements for coated fabric for upholstered furniture.

ZWS 855:1971
Loomstate cotton duck
Price Code: Gr. 6
16 pages
Reprint of ZWS L 8: 1971
Reprinted 2002

Covers twelve qualities of plain woven cotton fabric in the loomstate suitable for tents, tarpaulins and equipage.

ZWS 856:1965
General purpose blankets for departmental and institutional use
Price Code: Gr. 4
9 pages
Reprint of ZWS L6: 1965
Reprinted 2002

Covers blankets with all wool weft and all cotton warp.

ZWS 857:1964
Printers metal
Price Code: Gr. 6
24 pages
Reprint of ZWS H2:1964
Reprinted 2002

Covers six grades of printers metal for mechanical type-casting machines.

ZWS 858:2005
Timber drums for insulated electric cables and bare conductors
Price Code: Gr. 7
26 pages
Based on AS/NZS: 2857: 1996
Amended No MD 662: 2009

Specifies requirements for timber drums up to 5t capacity lot transport and storage of insulated electric cables, bare conductors and other products for which drums are suitable.

ZWS 860:1967
Soft solders
Price Code: Gr. 4
9 pages
Reprint of H3: 1967
Reprinted 2002

Sets out requirements for antimonial and non-antimonial soft solders for general use and those for higher temperature.

ZWS 861:2003
Farm implements – Animal drawn plough shares
Price Code: Gr. 6
17 pages

Specifies the requirements of both the upset and flat shares.

ZWS 862:2004
The product, processing, labeling and marketing of organically produced foods
Price Code: Gr. 8
46 pages
Based on Codex GL, 32:1999, Rev 1: 2001

Standard applies to some products including unprocessed plants, livestock, processed agricultural crops etc. which carry or are intended to carry, descriptive labeling referring to organic production methods.

ZWS 863:2002
Micro-concrete roofing tiles
Price Code: Gr. 6
18 pages
Based on GS 529: 1994

Specifies the requirements for micro-concrete roofing tiles. It specifies the quality of raw materials, dimensional and performance requirements.

ZWS 864:2004
Quality assurance of pharmaceuticals – Good manufacturing practices and inspection
Part 1: Main principles for pharmaceutical products
Based on WHO Quality Assurance of Pharmaceuticals Vol 2: Good manufacturing practices and inspection: 1999
Replaces ZWS K30: 1971
Price Code: Gr. 8
65 pages

Shall be used to justify good manufacturing practices (GMP) status, which constitute one of the elements of WHO certification scheme on quality of pharmaceutical products moving in international commerce, through the assessment of applications for manufacturing authorizations and as basis for the inspection of manufacturing facilities.

Part 2: Starting Materials
Price Code: Gr.7
30 pages

Outlines procedures and practices that manufacturers should employ to ensure that the methods, facilities and controls used for the production of active pharmaceutical excipients are operated or managed so that such products have quality and purity appropriate for their use in finished pharmaceutical products.

Part 3: Specific pharmaceutical products
Price Code: Gr. 7
42 pages

Stresses specific points for the manufacture of specific pharmaceutical products to minimize the risk of microbiological particulate and pyrogen contamination.

Part 4: Inspection
Price Code: Gr. 7
35 pages

Gives guidelines for the inspection of pharmaceutical manufacturers.

ZWS 865:1966
Black and white disinfectant fluids
Price Code: Gr. 4
7 pages
Reprint of ZWS K16: 1966
Reprinted 2002

Sets out the general requirements for disinfectant fluids of the coal tar type.

ZWS 866:2003
Fertilizers – Magnesium nitrate
Price Code: Gr. 3
6 pages
Specifies the requirements for magnesium nitrate for use as a fertilizer.

ZWS 867:2015
Fertilizers – Potassium sulfate
Price Code: Gr. 4
3 pages
Based on ES 268: 1990
First published 2003
First revision 2015

Specifies the requirements for potassium sulfate intended for use as a fertilizers

ZWS 868:2017
Fertilizers – Magnesium sulfate anhydrous
Price Code: Gr. 4
4 pages

Specifies the requirements for magnesium sulfate anhydrous intended for use as a fertilizer.

ZWS 869:2015
Fertilizers – Calcium Nitrate
Price Code: Gr. 4
3 pages
First published 2008
First revision 2015

Specifies the requirements for calcium nitrate intended for use as a fertilizer.

ZWS 870:2015
Fertilizers – Potassium nitrate (nitrate of potash)
Price Code: Gr. 4
3 pages
Based on ES 397: 2000
First revision 2015

Specifies the requirements for potassium nitrate (nitrate potash) intended for use as a fertilizer.

ZWS 871:2015
Fertilizers – Ammonium nitrate
Price Code: Gr. 4
2 pages
Based on ES 202: 1990
First revision 2015

Specifies the requirements for ammonium nitrate (coated) intended for use as a fertilizer.

ZWS 872:2024
Fertilizers – Monoammonium phosphate (MAP)
Price Code: Gr. 4
4 pages
Based on ES 196: 2000
First published 2003, as ZWS 872,
First revision 2015, as ZWS 872;
First Reprint 2024, as ZWS 872.

This Zimbabwe Standard specifies the requirements for monoammonium phosphate (MAP) intended for use as a fertilizer.

ZWS 873:2015
Fertilizers – Zinc sulfate monohydrate
Price Code: Gr. 4
3 pages
First published 2003
First revision 2015

Specifies the requirements for zinc sulfate monohydrate intended for use as a fertilizer.

ZWS 874:2015
Fertilizers – Urea
Price Code: Gr. 4
3 pages
Based on ES 264: 1990

Specifies the requirements for urea intended for use as a fertilizer.

ZWS 875:2015
Potassium chloride (muriate of potash) Fertilizer
Price Code: Gr. 4
3 pages

Specifies the requirements for potassium chloride (muriate of potash) intended for use as a fertilizer.

ZWS 878:2003
Snatch blocks
Price Code: Gr. 5
14 pages
Based on ZWS 1819: 2001

Specifies the requirements for snatch blocks intended for use in conjunction with scraper scoops in the underground mining and surface operations

ZWS 880:2010
Water quality – detection and enumeration of vibro cholera
Price Code :Gr.6
Based on SANS 6315:2003
16 pages

Specifies a method for the detection and emumeration of Vibrio cholerae in water.

ZWS 881:2013
B – Type bush pump
Price Code: Gr. 8
75 pages

Based on the Swiss Centre for Development Cooperation in Technology and Management-Hand pump Tecnnology Network (SKAT-HTN), Bush pump Deep Hand pump: The B-type deep well hand pump suitable for lifting water from depths of 3 to 80m. However, pumps can be operated when installed up to 100m depth, although this puts a greater strain on the parts. For very deep installations the pump head is modified with 16mm side arms and modified pivot pins with a longer 3m handle.

ZWS 882:2005
Pipe threads for tubes and fittings where pressure –tight joint are made of the threads (metric dimensions)
Price Code: Gr. 7
29 pages
Based on BS 21: 1985

Specifies requirements for jointing threads and long screw threads. Gives methods of verification of jointing thread dimensions and form using recommended gauging systems.

ZWS 883:1970
White metal bearing alloy ingots
Price Code: Gr. 4
9 pages
Reprint of ZWS H6: 1970
Reprinted 2003

Specifies requirements for white metal bearing alloys in ingot form.

ZWS 884:2003
Magnetic particle flaw detection
Price Code: Gr. 8
2 pages
Based on BS 6072: 1981

Specifies techniques and procedures for magnetic particle flaw detection of ferromagnetic materials.

ZWS 886:1969
Laboratory glassware
Price Code: Gr. 3
6 pages
Reprint of ZWS R2: 1969
Reprinted 2003

Gives the requirements for general laboratory glassware, and the more detailed requirements for specific types of glassware in common use.

ZWS 888:1994
Mayonnaise, salad cream or dressing and sandwich spread
Price Code: Gr. 5
13 pages
Reprint of ZWS S2 1972
Replaced S2
Amended by 593:1999, MD 637:2001
Reprinted 2003

Lays down the requirements for the manufacturing, sampling, labelling and testing of mayonnaise, salad cream or dressing and sandwich spread. Each of which shall be of one type and grade.

ZWS 889:2004
Conductors for overhead electrical transmission lines
Part 1: Stranded aluminum conductors
Price Code: Gr. 5
15 pages
Based on SABS 182-2: 2001

Applies to insulated, hard-drawn aluminum conductors for overhead transmission lines.

Part 2: Aluminum conductors, steel reinforced
Price Code: Gr. 6
15 pages
Based on SANS 182-3: 2001

Applies to uninsulated stranded hard-drawn aluminum conductors steel reinforced, for overhead transmission lines.

ZWS 890:2005
High voltage busbars and busbar connections
Price Code: Gr. 7
25 pages
Reprint of BS 159: 1992

Specifies requirements for both enclosed and open busbars and busbar connection which are components of a.c. high voltage electrical systems (above 1kV) and are composed of metal such as copper or aluminium, with air oil, gas, solid or semi solid materials as principal insulation.

ZWS 900:2004
Structured wall pipes and fittings of unplasticized poly (vinyl chloride) (PVC-U) for buried drainage and sewage systems
Price Code: Gr. 7
43 pages
Based on SANS: 1601: 2003

Covers unplasticized poly (vinyl chloride) wall pipes (including pipe fittings) with an essentially smooth inside surface, of nominal diameter 110 mm upto and including surface, of nominal diameter 110 mm upto and including 1000 mm. and intended for buried gravity drainage and sewage pipe systems for the transportation of soil and waste discharge of domestic and industrial origin.

ZWS 904:2008
Guidelines for the design of control measures for street vended foods in Zimbabwe
Price Code: Gr. 7
27 pages

Specify the general hygienic requirements and practices to be recommended for inclusion in Codes of Practice for the preparation and sale of street foods.

ZWS 905:1972
Ready – to – cook samosas
Price Code: Gr. 4
8 pages
Reprint of ZWS S15: 1972
Reprinted 2003

Covers the manufacture, packaging, labelling, sampling and testing of ready to cook samoosas.

ZWS 906:2010
Small domestic septic tanks and soil absorption systems
Price Code: Gr.10
87 pages
Revision of R.N.S No CA1:1973
Amended by MD 666:2010
Replaces ZWS 334:2008
Reprnted 2010

Sets out recommendations for the design, layout, construction and maintenance of septic tank installations, including disposal of tank effluent by means of absorption trenches. It is applicable to houses, flats etc where the contributors do not exceed 12 persons. It is not intended to include the treatment of sewage from groups of houses, large institutions, hospitals or the like.

ZWS 913.1:2012
The petroleum industry
Part 1: Storage and distribution of petroleum products in above ground bulk installations
Price Code: Gr. 7
86 pages
Identical to SANS 10089.1:2008
Supercedes ZWS CZ1:1963

Covers the layout and design of petroleum bulk depots and the installation of equipment of the tyres normally used for the handling storage and distribution of petroleum products and their derivatives other than equipment that is used for storage and dispensing on consumer premises (including service stations).

ZWS 913.2:2020
Petroleum Industry
Part 2: The installation of underground tanks, pumps/dispensers and pipework at service stations and consumer installations
Price Code: Gr.7
34 pages
Based on SANS 10089.3:1999

Covers provisions for the installation of underground storage tanks of individual capacity not exceeding 40 000l , pumps or dispensers and pipework at service stations and consumer installations.

ZWS 913.3:2011
Petroleum Industry –
Part 3: Requirements for above ground tanks with integral secondary containment and dispensers
Price Code: Gr.8
48 pages
Identical to AS 1940:2004

Sets out requirements for the safe storage and handling of flammable liquids of dangerous goods Class 3,as classified in the UN Recommendatios for the Transport of Dangerous Goods.

ZWS 915:2014
Zimbabwe Organic Farming
Price Code: Gr. 8
72 pages

This Zimbabwe Standard shall apply to the following products which carry, or are intended to carry, descriptive labelling referring to organic production methods; Unprocessed plants and plant products to the extent that the principles of organic production and specific inspection rules for them are applied. Processed agricultural crop products intended for human consumption derived from organically produced plants and plant products. A product shall be regarded as bearing indications referring to organic production documents, the product or its ingredients, is described by the terms 'organic' or words of similar intent including diminutives which suggests to the purchaser that the product or its ingredients were obtained according to organic production methods. Sub Clause 1.2 does not apply where these terms clearly have no connections with the method of production. All materials and/or the products produced from genetically engineered/modified organisms (GEO/GMO) are not compatible with the principles of organic production (the growing, manufacturing, or processing) and therefore are not accepted under this standard. The use of nanotechnology and nanoparticles in organic production is not allowed. The use of hydroponic is not allowed in organic products.

ZWS 916:2011
Disposable portable condensed aerosol fire extinguishers
Price Code: Gr. 6
16 pages

Specifies the minimum requirements of disposable portable condensed aerosol fire extinguishers of charge mass not exceeding 1 000g and suitable for use on Class A,B,C and E fires.

ZWS 919:2011
Writing Equipment – Ballpoint Pens
Price Code: Gr. 6
18 pages
Replaced by ZWS X2:1968
Identical to SANS 785:2006

Specifies the requirements for single-cartridge ballpoint pens,replacement refills and direct-fil ballpoint pens which have black,blue green or red inks.

ZWS 922:2011
Safety tyre bands
Price Code: Gr.5
9 pages

Covers requirements for safety tyre bands construction, dimensions, material composition and performance for wheel rim sizes 13 inches to 20 inches and 22,5 inches for light truck and bus tyres.

ZWS 923:2012
Sustainable Plantation Forest Management
Price Code: Gr. 7
33 pages

Applicable to all forest plantations within Zimbabwe seeking local and/or international certification.

ZWS 924:2012
Invert bitumen emulsions
Price Code: Gr. 4
7 pages
Identical to SANS 1260:2004

Covers the requirements for one type of invert bitumen emulsion intended for use as a primer on dry,firm and dust-free road bases and especially where rapid drying (within 48h) characteristics are requirements.

ZWS 925:2012
Cationic bitumen road emulsions
Price Code: Gr. 4
11 pages
Identical to SANS 548:2003

Covers the requirements for three types (of the appropriate grade (s) given in Table 1) of cationic bitumen road emulsions suitable for the preparation and treatment of road and other surfaces carrying wheeled and foot traffic.

ZWS 926:2012
Anionic bitumen road emulsions
Price Code: Gr. 5
13 pages
Identical to SANS 309:2004

Covers the requirements for three types (each of grade 60) of anionic bitumen road emulsions suitable for the preparation and treatment of road and other surfaces carrying wheeled and foot traffic.

ZWS 927:2012
Hardwood furniture timber
Price Code: Gr. 7
24 pages
Identical to SANS 1099:2008

Covers three basic grades (i.e. clear grade,semi-clear grade and knotty grade) of rough-sawn hardwood timber and timber derived from trees of the *Podocarpus spp*.,of density (at a moisture content of 12 (m/m)) at least 400kg/m^3 and intended for use in the manufacture of furniture.

ZWS 928:2012
Cold mix premix
Price Code: Gr. 4
11 pages
Identical to AS 4283:1995

Specifies requirements for cold mix premix for use as a road maintenance patching and minor pavement construction material that is suitable for stockpiling prior to use. In particular ttthis standddarrrd includes requirements for materials, typical mix proportions, production temperatures and sampling and testing methods.

ZWS 929.1:2012
Fibreboard products
Part 1:Uncoated fibreboards
Price Code: Gr. 5
16 pages
Identical to SANS 540.1:2009

Specifies the characteristics of uncoated fibreboards.

Part 2:Coated fibreboards
Price Code: Gr. 4
10 pages
Equivalent to SANS 540.2:2009

Specifies the characteristics of coated fibrebord.

ZWS 930:2012
Fibreboard –Measurement of dimensions of test specimens
Price Code: Gr. 2
4 pages
Identical to SANS 6174

Specifies a method of measuring the length , width and thickness of conditioned test specimens of fibreboard and fibreboard products.

ZWS 931:2012
Insulation board – Determination of bitumen content
Price Code**:** Gr. 3
5 pages
Identical to SANS 6177:2004

Specifies a method of determining the bitumen content of bitumen insulationboard.

ZWS 932:2012
Thickness swelling and water absorption of fibre boards on immersion in water
Price Code:Gr. 3
6 pages
Identical to SANS 6012:2004

Covers the determination of thickness swelling and water absorption of particle boards specimens when immersed in water.

ZWS 933:2012
Modulus of elasticity and modulus of rupture in static bending of fibreboards
Price Code: Gr. 4
9 pages
Identical to SANS 6015:2004

Covers the determination of the apparent and of the true modulus of elasticity and of the modulus of rupture in static bending of fibreboard.

ZWS 934:2012
Fibreboard – Determination of density
Price Code: Gr. 2
4 pages
Identical to SANS 6175:2004

Specifies a method of determining the density of fibreboard and fibreboard products.

ZWS 935:2012
Edge straightness of wooden board products
Price Code: Gr. 3
4 pages
Identical to SANS 5970:2004

Covers the determination of edge straightness of wooden board products.

ZWS 936:2012
Flatness of wooden board products
Price Code: Gr. 3
5 pages
Identical to 5969:2004

Covers the determination of flatness of wooden board products such as plywood and composite board and decorative melamine-faced boards.

ZWS 937:2012
Timber based board products – Squareness
Price Code: Gr. 3
5 pages
Identical to SANS 5970:2004

Specifies a method of measuring the squareness of timber-based board products.

ZWS 938:2012
Screw holding strength of wood based panels
Price Code: Gr. 3
5 pages
Identical to SANS 6018:2005

Covers the determination of the resistance to axial withdrawal of wood screws of a standard type inserted into the face and into the edge of wood-based panels.

ZWS 939:2012
Fibreboard – Determination of lateral nail holding strength
Price Code: Gr. 3
5 pages
Identical to SANS 5970:2004

Specifies a method of determining the lateral nail-holding strength of a fibreboard panel.The test simulates the condition encountered when forces tend to pull paneling or sheathing from a wall.

ZWS 940:2012
Fibreboard – Preparation of test specimens
Price Code: Gr. 4
9 pages
Identical to SANS 6173:2004

Specifies a method of selecting , cutting and identification markingof test specimens of fibreboard.

ZWS 941:2012
Fibreboard – Determination of linear expansion as a result of water absorption
Price Code: Gr. 3
4 pages
NS 6176:2004

Specifies a method of determining the linear dimensional changes of fibreboardn as a result of water absorption.

ZWS 950:2012
Dimensional and mass stability of fibre boards with varying humidity
Price Code; Gr. 4
6 pages
Equivalentl to SANS 6013:2004

Covers the determination of the changes in dimensions (length and width) and in mass (equilibrium moisture content) of fibreboard exposed to two extremes of relative humidity.

ZWS 951:2012
Coated fibreboard – Determination of resistance to staining
Price Code: Gr.4
6 pages
Equivalent to SANS 6180:2004

Specifies a method of determining the resistance of coated fibreboard to staining.

ZWS 952:2012
Coated fibreboard – Determination of resistanceto steam
Price Code: Gr. 3
5 pages
Identical to SANS 6181:2004

Specifies a method of determining the resistance of coated fibreboard to steam.

ZWS 953:2020
Unleaded petrol
Price Code: Gr. 5
5 pages
Identical to SANS 1598

Specifies one grade of unleaded petrol with research octane number (RON) OF 93 and suitable for use in spark-ignition internal combustion engines other than aviation piston engines.

ZWS 954:2014
Ball studs and ball socket assemblies
Price Code: Gr. 4
8 pages
Identical to SAE J 491:1987

Established for the purpose of providing design criteria and suggested dimensional proportions which may be used for ball studs and ball stud socket assemblies as used on steering systems or control mechanisms of passenger vehicles trucks and off road equipment.

ZWS 956:2014
Ball joints
Price Code: Gr. 4
10 pages
Identical to SAE J 490:2012

Covers the general and dimensional data for various types of ball joints with inch threads commonly used oncontrol linkages in automotive, marine and construction and industrial equipment applications.

ZWS 958:2012
Fibreboard – Determination of transverse internal bond strength
Price Code: Gr. 3
4 pages

Specifies a method of determining the transverse internal bond strength of fibreboards.

ZWS 960: Part 1:2012
The handling, storage, distribution and maintenance of liquefied petroleum gas in domestic, commercial and industrial installations
Part 1: Liquefied petroleum gas installations involving gas storage containers of individual water capacity not exceeding 500L and a combined water capacity not exceeding 3 000L per installation
Price Code: Gr. 8
73 pages
Based on SANS 10087.1:2008

Specifies requirements for the materials, the methods of construction and the installation of equipment used in liquefied petroleum gas applications for domestic and commercial installations that involve gas storage containers of individual water capacity not exceeding 500 litres and of a combined water capacity not exceeding 3000 litres.

ZWS 960: Part 2:2018
The handling, storage, distribution and maintenance of liquefied petroleum gas in domestic, commercial, and industrial installations
Part 2: Liquefied petroleum gas installations involving storage vessels of individual water capacity exceeding 500 litres
Price Code:Gr. 8
55 pages
Based on SANS 10087.3:2008

Specifies requirements for the layout, design and installation of butane, propane and liquefied petroleum gas equipment and of storage vessels of individual water capacity exceeding 500 litres and associated vaporizers, pipework and fitting up to the outlet of the first pressure reduction stage in the line.

ZWS 960: Part 3:2025
The handling, storage, distribution and maintenance of liquefied petroleum gas in domestic, commercial, and industrial installations
Part 3: Storage and filling premises for refillable liquefied petroleum gas (LPG) containers of gas capacity not exceeding 19kg and the storage of individual gas containers not exceeding 48kg
Price Code: Gr.7
35 pages
Based on SANS 10087-7

This part of ZWS 960 specifies the minimum requirements for the location and installation of, and operations at, filling premises for the filling of liquefied petroleum gas (LPG) containers of gas capacity not exceeding 19 kg, including the storage of individual gas containers not exceeding 48 kg. It identifies safe methods of filling and storing refillable containers and makes recommendations towards safe working procedures that cover all aspects of the storage of containers. This part of ZWS 960 also covers the storage of non-refillable containers.

ZWS 960: Part 4:2016
Part 4: The transportation of LP Gas including the design, construction, inspection, fittings, filling, maintenance and repair of LP gas bulk vehicles and rail tank cars
Price Code: Gr. 7
Identical to SANS 10087-4

Standard gives requirements for the design, construction, inspection, fittings and the filling ratio of pressure vessels including ISO containers and skid tanks, used in the transportation of LPG the design of vehicles and ancillary equipment, and operating practice.

ZWS 962:2022
Denatured fuel ethanol for blending with gasolines for use as automotive spark ignition engine fuel
Price Code: Gr. 5
9 pages
Identical to ASTM D4806 -11a:2011
First published 2012, as ZWS 962
First revision 2022, as ZWS 962

This specification covers nominally anhydrous denatured fuel ethanol intended to be blended with unleaded or leaded gasolines at 1 to 10 volume % for use as automotive spark-ignition engine fuel covered by Specification D4814.

ZWS 963:2012
Illuminating paraffin
Price Code:Gr. 5
9 pages
Based on SANS 342

Specifies illuminating paraffin.Illuminating paraffin (IP) is used extensively for heating and lighting in domestic and industrial sectors.IP is also used as a solvent in manufacturing processes of certain products such as paints,varnish,polish,insecticides and so on.

ZWS 964: Part 1:2025
Ethanol blend
Part 1:E5
Price Code:Gr. 8
8 pages
Based on SANS 1598

This Zimbabwe Standard specifies one grade of ethanol blend with research octane number (RON) of 93 and suitable for use in spark-ignition internal combustion engines other than aviation piston engines. The grade shall contain oxygenates in the form of ethanol.

ZWS 964: Part 2:2025
Ethanol blend
Part 2: E10
Price Code:Gr. 8
10 pages
Based SANS 1598

This Zimbabwe Standard specifies one grade of ethanol blend with research octane number (RON) of 93 and suitable for use in spark-ignition internal combustion engines other than aviation piston engines. The grade shall contain oxygenates in the form of ethanol.

ZWS 964: Part 3:2025
Ethanol blend
Part 3: E20
Price Code:Gr. 7
10 pages
Based SANS 1598

This Zimbabwe Standard specifies one grade of ethanol blend with research octane number (RON) of 93 and suitable for use in spark-ignition internal combustion engines other than aviation piston engines. The grade shall contain oxygenates in the form of ethanol.

ZWS 964: Part 4:2025
Ethanol Blend
Part 4: E85
Price Code: Gr. 8
6 pages
Based ASTM D5798:

his specification covers the requirements for automotive fuel blends of ethanol and gasoline for use in ground vehicles equipped with ethanol fuel blend flexible-fuel spark-ignition engines. Fuel produced to this specification contains 51 % to 83 % by volume ethanol. This fuel is for use in flexible-fuel vehicles and is sometimes referred to at retail as “Ethanol Flex-Fuel.” Appendix X1 discusses the significance of the properties specified. The vapor pressure of ethanol fuel blends is varied for seasonal climatic changes. Vapor pressure is increased at lower temperatures to ensure adequate flexible-fuel vehicle operability. Ethanol content and selection of hydrocarbon blendstock are adjusted by the blender to meet these vapor pressure requirements. This specification formerly covered Fuel Ethanol (Ed70-Ed85) for Automotive Spark-Ignition Engines, also known commercially as E85. The nomenclature “fuel ethanol” has been changed to “ethanol fuel blends” to distinguish this product from denatured fuel ethanol Specification D4806. To facilitate blending of ethanol fuel blends that meet seasonal vapor pressure requirements, a new lower minimum ethanol content has been established. The United States government has established various programs for alternative fuels. Many of the definitions of alternative fuel used by these programs may be more restrictive than the requirements of this specification. See 4.1.2.1 for additional information on alternative fuels containing ethanol. The values stated in SI units are to be regarded as standard. The values given in parentheses after SI units are provided for information only and are not considered standard. The following safety hazard caveat pertains only to the test method portion, 8.1.8, of this specification. This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.

ZWS 964: Part 5:2025
Ethanol blend
Part 5: E15
Price Code: Gr. 9
9 pages
Based on SANS

Specifies one grade of ethanol blend with research octane number (RON) of 95 and suitable for use in spark-ignition internal combustion engines other than aviation piston engines.The grade shall contain oxygenates in the form of ethanol.

ZWS 965:2012
Liquefied petroleum gases
Price Code: Gr. 4
10 pages
Based on SANS 1774:2007

Specifies requirements for liquefied petroleum gas mixture, commercial propane and commercial butane.

ZWS 966:2014
Civil engineering test methods
Part 1: Penetration grade bitumen
Price Code: Gr. 3
7 pages
Identical to SANS 4001-BT 1:2012

Applies to bituminous materials and covers ths requirements for four penetration grades of bitumen suitable for road construction and similar purposes.

ZWS 967:2013
Quality management systems for fuel quality in the petroleum industry – Guidelines and requirements
Price Code: Gr.10
18 pages

Applicable to all fuel industry players including fuel terminals, fuel importers/wholesalers, biofuel producers and retail sites who operate in Zimbabwe.

ZWS 968:2014
Diesel fuel oil, biodiesel blend (B5 TO B20)
Price Code: Gr. 10
19 pages
Identical to ASTM D7467:2010

Covers fuel blend grades 6 to 20 volume percent (%) biodiesel with the remainder being a light middle or middle distillate diesel fuel, collectively designated as B6 To B 20. These grades are suitable for various types of diesel engines.

ZWS 969:2017
Mixtures of CCA compounds for Timber preservatives
Price Code: Gr. 6
10 pages

Standard covers mixtures of copper-chromium-arsenic compounds (in the form of a powder, a granular powder, a paste, or a liquid) for timber preservation.

ZWS 970:2020
Guidelines for retail service stations for liquid fuels
Price Code: Gr. 7
26 pages
Supercedes ZWS 970:2017

Applicable to all fuel industry organizations including retail service stations and own use filling stations which are operated in Zimbabwe.

ZWS 972:2019
Selection, Installation and Maintenance of First-Aid Fire Extinguishers
Price Code: Gr. 7
24 Pages
Based on IS 2190 (fourth Edition):2010

Lays down recommendations for selection, installation, maintenance and testing of first aid fire extinguishers.

ZWS 973:2013
Fuel wholesalers – Guidelines and requirements
Price Code: Gr. 10
22 pages

Stipulates the requirements and guidelines for fuel importers, wholesalers and biofuel producers.

ZWS 974:2014
Tomato sauce / ketchup
Price Code: Gr. 5
16 pages
Based on SANS 301

Specification covers tomato sauce and ketchup of one type and grade.

ZWS 975:2014
Water for irrigation purposes
Price Code: Gr. 6
19 pages

Specifies requirements for the water used for irrigation purposes in relationhip to the crops, soils and safety people handling the water.

ZWS 976:2015
Expanded polystyrene – Modular precast composite concrete panels building system
Price Code: Gr. 6
17 pages

Specifies guidelines on erecting built structures usig the Expanded polystyrene – Modular precast composite concrete panels building system erected under the control of a registered engineer constructed in accordance with the manufacturer's detailed specifications and quality management manual

ZWS 977:2015
Air quality and emissions
Price Code: Gr. 6
24 pages

Specifies the minimum requirements for air quality and air emissions.it sets out the required limit values and also procedures for those aspects that may impact on air quality.

ZWS 984:2015
Breath alcohol testing devices other than those used for forensic law enforcement.
Price Code: Gr. 8
41 pages

The standard specifies requirements for the performance, testing and marking of disposable and reuseable breath alcohol testing devices other than those devices covered by OIML R126:2012, used for forensic law enforcement.

ZWS 985:2015
Paprika
Price Code: Gr. 4
5 pages

Specifies requirements for the water for paprika (Capsicum annuum Linnaeus) whole pods without calyx sold, without preparation or grading, called "non processed" NP paprika.

ZWS 987:2017
Microbiological water purifiers
Price Code: Gr. 5
23 pages
Based on NFS Protocol P231

Microbiological water purifiers use chemical, mechanical, and/or physical technologies to filter and treat waters of unknown microbiological quality but are presumed portable.

ZWS 988:2015
Milk fat products
Price Code: Gr. 4
4 pages

The standard applies to anhydrous milk fat, milk fat, anhydrous butter oil, butter oil and ghee, which are intended for further processing or culinary use.

ZWS 989:2015
Cereal legume blend
Price Code: Gr. 5
5 pages

The standard specifies requirements and the methods of test for cereal-legume blend

ZWS 990:2016
Cream Cheese
Price Code: Gr. 5
8 pages

This standard applies to cream cheese intended for direct consumption or further processing in conformity with the description in clause 2.

ZWS 991:2015
The design, construction and maintenance of domestic waste water treatment system using biodigesters
Price Code: Gr. 6
13 pages

The standard specifies minimum requirements for the design, construction, operation and maintenance of domestic waste water treatment systems using bio-digesters

ZWS 992:2019
HIV and Wellness Management Systems (HWMS)
Price Code: Gr. 10
16 pages

The standard specifies requirements fo HWMS to any organization.

ZWS 993:2016
Fertilizers – Sampling of solid fertilizers
Price Code: Gr. 3
2 pages

The standard specifies the sampling of solid fertilizers in bulk bins and bags.

ZWS 994:2016
Transportation of liquid fuels – Operational requirements for road tank vehicles
Price Code: Gr. 7
27 pages

The standard establishes guidelines for the safe operation and handling of road vehicles that are used for the conveyance of liquid fuels that is loading, driving and unloading.

ZWS 995:2016
Road tank vehicles for transportation of liquid fuels - Requirements
Price Code: Gr.8
40 pages

Standard covers the requirements for tank vehicles intended for use on public roads, for transportation, at temperatures below their boiling point, of normally stable liquid fuels

ZWS 996:2016
Fresh and frozen whole fish
Price Code: Gr. 4
4 pages

This standard specifies requirements and methods of sampling and test for fresh and frozen whole fish.

ZWS 999:2023
Mahewu
Price Code: Gr. 4
8 pages
First published 2016, as ZWS 999,
First Revision 2023, as ZWS 999.

This standard specifies the requirements for commercially produced Mahewu.

ZWS 1000:2016
Cyanide use, storage and disposal in small scale mining - Requirements
Price Code: Gr. 4
6 pages

Specifies minimum requirements for safe manufacture, purchase, use, handling, storage and disposal of cyanide in small scale mining.

ZWS 1001:2017
Small scale mining mineral ore processing
Price Code: Gr. 4
7 pages

The code gives the minimum requirements for small scale mineral ore processing. It covers gold and diamond mineral ore processing at a small scale level.

ZWS 1003:2016
Blend of skimmed milk and vegetable fat in powdered form
Price Code: Gr. 4
5 pages

The standard applies to a blend of skimmed milk and vegetable fat in powdered form, intended for direct consumption, or further processing, in conformity with the description in clause 2 of this standard.

ZWS 1004:2016
Dairy fruit juice blend
Price Code: Gr. 4
4 pages

This standard specifies the requirements and methods of sampling and testing for a ready to drink blend of milk and fruit concentrate intended for direct human consumption

ZWS 1005:2017
Small scale surface mining
Price Code: Gr. 7
27 pages

The code provides minimum guidelines for the small-scale mining in Zimbabwe with special emphasis on gold.

ZWS 1006:2016 / IS 2189:2008
Selection, installation and maintenance of automatic fire detection, alarm system and Automatic fire extinguishing systems (IS 2189:2008 Selection, installation and maintenance of automatic fire detection and alarm system code of practice, MOD)
Price Code: Gr. 8
28 pages

Standard covers the planning, design, selection, installation and maintenance of automatic fire detection, alarm system and automatic fire extinguishing systems. It covers systems capable of providing signal to initiate, in the event of a fire, the operation of ancillary services, such as fire extinguishing systems and other necessary precautions but it does not cover the ancillary services.

ZWS 1007:2016
Performance of range tops
Price Code: Gr. 4
9 pages

These test methods cover the energy consumption and performance of range tops. The food service operator can use this evaluation to select a range top and understand its energy consumption.

ZWS 1008:2016
Induction cooktops, counter tops, drop-in mounted or floor standing
Price Code: Gr. 4
4 pages

This standard covers cooktops which utilize induction as a means for cooking and warming food in commercial and institutional food service establishments. Included are tabletop units, drop-in units and floor standing equipment with integral induction hobs.

ZWS 1009:2016
Vehicle security – Whole of vehicle marking Datadot systems
Price Code: Gr. 6
20 pages

This standard describes the characteristics and methods of application of unique identification carriers, called Datadots, to vehicles and also the processes required to ensure the integrity, authenticity and confidentiality of the entire Datadot production, supply, storage, and application systems

ZWS 1010:2016
Mercury use, storage and disposal in small scale mining
Price Code: Gr. 4
6 pages

This standard specifies minimum guidelines for the purchase, use, handling, storage and disposal of mercury in small-scale mining.

ZWS 1011:2016
Design, dewatering support of mining shafts in small scale mining
Price Code: Gr. 4
5 pages

This standard gives minimum guidelines for design, dewatering support of mining shafts in small scale mining.

ZWS 1012:2019
Requirements for certification of refrigeration and air conditioning practitioners
Price Code: Gr. 6
12 pages

This standard specifies the competence profiles and establishes procedures for assessing the competence of personnel who carry out refrigeration and air conditioning activities.

ZWS 1013:2017
Tomatoes
Price Code: Gr. 3
3 pages

This standard specifies the requirements and methods of sampling and testing for whole tomatoes of varieties (cultivars) grown from Lycoper-sicum esculentum Mill. Of the Solanaceae family supplied fresh to the consumer.

ZWS 1014:2023
Preservative-treated timber
Price Code: Gr. 7
29 pages

This standard specifies preservative treatment requirements (other than the method of treatment) for preservative-treated timber and timber products (other than for composite board products), that have an expected service life at various levels of preservative treatment which are considered to be acceptable for a range of hazard conditions.
Note. Timber used in ground contact and exterior above ground exposure, should have an expected life span of at least 20 years when treated in accordance with the requirements applicable to the exposure classes (see table 1). This standard is not applicable to treatment with fire retardants or to treatments aimed at improving the physical properties of timber and timber products, nor does it cover the inherent quality of timber or timber products, or properties other than in respect of preservative treatment).

ZWS 1015:2017
Illuminating candles
Price Code: Gr. 4
5 pages
Identical to SANS 1896:2013

This standard specifies the requirements for candles suitable for illuminating purposes, but does not cover decorative candles.

ZWS 1016:2017
The installation, maintenance, repair and replacement of Domestic Solar Water heating systems
Price Code: Gr. 7
28 pages
Direct adoption of SANS 10106

This standard covers requirements for the safe installation, retrofitting, maintenance, repair and replacement of domestic solar water heaters.

ZWS 1017:2017
Domestic Solar Water heaters – Mechanical Qualification Test Methods
Price Code: Gr. 5
9 pages

This standard specifies test methods for domestic solar water heaters.

ZWS 1018:2017
Ice
Price Code: Gr. 4
2 pages

This standard specifies the requirements for processing, testing, packaging, labelling, transportation and storage of ice intended for human consumption.

ZWS 1019:2017
Zimbabwe Horticulture – Good Agricultural practice (GAP)
Price Code: Gr. 7
20 pages

Provides general requirements for good Agricultural Practices for use in the handling of fresh fruits and vegetables cultivated for human consumption in order to ensure a safe and wholesome product..

ZWS 1020:2017
Biogas systems
Part 1- Design, installation,operation and maintenace of biogas systems
Price Code: Gr. 4
27 pages

This Zimbabwean Code of Practice provides requirements for design, installation operation and maintenance of stand alone biogas systems. This standard shall be read in conjuction with ZWS 1020: Part 2.

ZWS 1020:2018
Biogas systems
Part 2- Micro grids
Price Code: Gr. 4
9 pages

This Zimbabwean Standard provides guidelines for the supply of biogas to third parties via micro grid connected to biogas plant(s) with one or more users in pipes. Shall be read together with ZWS 1020:part 1.

ZWS 1021:2016
The safety of water treatment chemicals for use in the food industry
Price Code: Gr. 3
9 pages

The standard sets minimum requirements for the safety of water treatment chemicals, intended for use in potable/process waters or boiler feed waters, where the treated water or steam produced might come into contact with food or food products.

ZWS 1022:2018
Agriculture biotechnology products (ABPS)
Price Code: Gr. 5
9 pages

This document specifies requirements for Agricultural biotechnology products for plant applications.

ZWS 1023:2017
Re-usable sanitary Pads
Price Code: Gr. 6
19 pages

This specification covers the manufacturing and performance requirements for reusable sanitary pads used during menstruation and post-delivery.

ZWS 1024:2017
Interlocking stabilized soil block (ISSB) building system
Price Code: Gr. 6
19 pages

The standard contains guidelines on erecting built structures using the interlocking soil block system.

ZWS 1025:2017
Domestic Storage Solar Heating Systems
Price Code: Gr. 6
25 pages

This standard specifies the requirements for integral ,close-coupled and split domestic storage solar water heating systems and includes specific requirements for solar collectors for water heating systems.

ZWS 1026:2017
Fixed Electric Storage water Heaters
Price Code: Gr. 8
58 pages
Replaces ZWS 213

This standard specifies the characteristics of thermostatically controlled fixed electric storage water heaters intended for indoor and outdoor domestic use and for operation on a.c supplies at voltages not exceeding 250V for single-phase and 418V for other appliances.

ZWS 1027:2017
Good Agricultural Practice For Animal Production Food Safety (ZSGAPAPFS)
Price Code: Gr. 7
25 pages

This standard shall address all those hazards whose control at farm level can have a beneficial or even decisive effect on the food safety of products of animal origin (including :milk and milk products). It shall apply to all types of farming systems and shall cover all livestock and animal products at farm level in Zimbabwe .

ZWS 1028:2017
Good Agricultural Practice –Risk Assessment on social practice
Price Code: Gr. 4
7 pages

Provides guidance for producers or farm managers who are implementing a social management system according to the G.A.P GRASP GR 4.

ZWS 1029:2017
Thermostats for Electric Storage Water Heaters
Price Code: Gr. 6
12 pages

This standard covers two types of thermostat that have breakers of the air-break type ,for use in thermostatically controlled electric storage water heaters.The thermostats are intended for use in circuits at voltages not exceeding 250V to earth and current ratings not exceeding 30A.

ZWS 1030:2021
Water supply and distribution system components – Drain corks for water storage
Price Code: Gr. 6
7 pages
Identical to SANS 1808:53:2012

This standard specifies dimensional and performance requirements for copper alloy drain cocks that are suitable for the draining of hot water storage containers that comply with ZWS 1026.

ZWS 1031:2017
The Installation, Maintance, Replacement and Repair Of Fixed Electric Storage Water Heating Systems
Price Code: Gr. 7
28 pages

This standard covers requirements for the safe installation of new and replacement of fixed electric storage water heaters,complete with all the relevant and applicable safety and hydraulic control units.

ZWS 1032 Part 1:2017
Domestic Solar Water heaters –Thermal Perfomance Test Using Outdoor Method
Price Code: Gr. 6
13 pages

This part of ZWS 1032 describes an outdoor test method for the determination of the thermal performance of domestic solar heaters.

ZWS 1032 Part 2:2017
Domestic Solar Water heaters –Thermal Perfomance Test Using Indoor Method
Price Code: Gr. 5
6 pages

This part of ZWS 1032 specifies an indoor test method for the determination of the thermal performance of domestic solar water heating systems for potable water and storage capacity not exceeding $0,3m^3$

ZWS 1033:2017
Energy Efficiency Of Electrical And Electronic Apparatus
Price Code: Gr. 4
8 pages

This standard covers energy efficiency requirements ,measures methods and energy efficiency of the following electrical and electronic apparatus.

ZWS 1034:2017
Appliances operating on Liquefied Petroleum Gas (LPG) or Natural Gas (NG) – Safety Aspects
Price Code: Gr. 8
63 pages
Identical to SANS1539:2012

This standard covers the safety of appliances that operate on Liquefied Petroleum Gas (LPG) or Natural Gas (NG) at a consumption rate rate not exceeding 10kg/h for appliances operating on LPG and 500 MJ/h for appliances operating on NG.

ZWS 1036:2018
Animal Fats
Price Code: Gr 5
7 pages
Based on Codex STAN 211-2015

This standard applies to pure rendererd lard, lard subject to subject to processing, rendered pork Fat.

ZWS 1037:2018
Maximum road Speed governors For Motor vehicles- Requirements
Price Code: Gr. 6
12 pages
Based on Rwandan Standard RS 291:2015
Specifies requirements for the performance and installation of designed to control the speed and limit the maximum road speed of motor vehicles by control of engine power.

ZWS 1038:2018
Motor Vehicles, Tyres and Rims-Dimensions and Loads
Part 1: General
Price Code: Gr. 6
10 pages
Identical to SANS 1038-1:2017

Specifies the general requirements for motor vehicle pneumatic tyres, giving the basic definitions, details of the parameters used for tyre marking requirements and a test method for the measurement of tyre dimensions. It does not cover pedal cycles, motorcar racing or motorcycle racing applications.

Part 2: Passenger Car Tyre
Price Code: Gr. 4
1 page
Identical to SANS 1550-2:2017

Specifies requirements for passenger car tyres. It does not cover motor racing applications.

Part 3: Commercial Vehicle Tyres
Price Code: Gr. 5
8 pages
Identical to SANS 1550-3:2017

Covers commercial vehicles tyres.

Part 4: Motorcycles and Scooter Tyres
Price Code: Gr. 3
1 page
Identical to SANS 1550-3:2017

Covers motorcycles and scooter tyres.

ZWS 1038:2019
Part 5: Off-the-road Vehicle Tyres
Price Code: Gr. 4
2 pages
Identical to SANS 1550-5:2017

Covers off-the-road vehicle tyres.

Part 6: Agricultural Vehicle Tyres
Price Code: Gr. 3
2 pages
Identical to SANS 1550-6:2017

Covers off-the-road vehicle tyres

Part 7: Industrial Vehicles Tyres
Price Code: Gr. 3
2 pages
Identical to SANS 1550-7:2017

Covers industrial vehicle tyres.

Part 10: Rim Contours
Price Code: Gr. 4
2 pages
Identical to SANS 1550-10:2017

Covers contours and dimensions of rims for the range of tyre sizes available.

ZWS 1039:2018
Solid Organic Fertilizers
Price Code: Gr. 5
8 pages

This Standard specifies requirements and methods of sampling and test for solid organic fertilizers.

ZWS 1045:2019
Installation, commissioning and maintenance of fire hose reels
Price Code: Gr. 6
17 pages

This Standard specifies requirements for installation, commissioning and maintenance of fire hose reels.

ZWS 1047 :2021
Re-qualification of Liquefied Petrolium Gas (LPG) cylinders
Price Code: Gr. 5
9 pages
Based on AIGA 090/14

It guides on the key aspects of periodic inspection and retesting of liquefied petroleum gas cylinders and gives a structure for the retesting activity.

ZWS 1048 :2020
Fresh Onions
Price Code: Gr. 6
16 pages

Applies to onions of varieties grown from Allium cepa L to be supplied to the consumer in the natural state ,green onions with full leaves and onions for industrial processing being executed.

ZWS 1049:1970
Carbolic soap
Price Code: Gr. 6
9 pages

Applies to soap containing additions of phenolic substances, such as cresylic acid, in bar cake or tablet form.

ZWS 1050:2022
Instant cereal and pulse based porridge
Price Code: Gr. 5
8 pages

This Zimbabwe Standard applies to instant cereal and pulse based porridge product. This product can be fortified or unfortified.

ZWS 1051:2020
Good Agricultural Practices For free range poultry production
Price Code: Gr. 6
11 pages

Gives guidance on free range poultry production.

ZWS 1053:2022
Ceramic wall and floor tiles
Price Code: Gr. 8
44 pages
Identical to SANS 1449:2012

This standard specifies the requirements for glazed and unglazed ceramic wall and floor tiles. The standard does not cover unglazed dust-pressed tiles that have a water absorption exceeding 10%.

ZWS 1054:1971
Tennis shoes for adults
Price Code: Gr. 3
11 pages
First reprint of CAS Z15:1971

This standard relates to men's and women's quality tennis shoes having rubber soles and canvas uppers.

ZWS 1055:1969
Men's quality shoes for town and office wear
Price Code: Gr. 4
12 pages
First reprint of CAS Z11:1969

This specification covers two types of footwear for men's sizes 5 to 12, as follows:
Type 1: Oxford shoe with or without toe-cap.
Type 2: Gibson/Derby shoe with plain vamp, or with a straight or wing toe-cap or with vamp.

ZWS 1056:1961
Minimum requirements for youths' and men's footwear
Price Code: Gr. 4
10 pages
First reprint of R.N.S. Z1:1961

This standard lays down the minimum requirements for materials and construction of youths' and men's footwear of the normal recognized types including the following: Goodyear welted: stitch-down, staple welted; direct vulcanized and premoulded stuck-on soles. It does not include slippers, vulcanized rubber footwear, rope-soled footwear or footwear made on the California principle.

ZWS 1057:2022
Manned security services – cash and valuables in transit services (collection and delivery)
Price Code: Gr. 6
14 pages

This Zimbabwe Standard gives recommendations for the organization, staffing, operation and management of companies providing a cash and valuables-in-transit (CVIT) service (collection and delivery) on a contracted basis.
Note. It is recognized that CVIT companies might provide a wide range of services that are not specifically covered by this standard (e.g. ATM replenishment, cash processing)..

ZWS 1058:2020
General Washable Face Masks
Price Code: Gr. 6
11 pages

This specification covers the manufacturing and performance requirements for general washable\reusable barrier masks.

ZWS 1060: Part 1:2022
Adhesives for wood
Part 1: Terminology
Price Code: Gr. 6
14 pages

This part of ZWS 1060 provides definitions of terms relating to adhesives for wood.

ZWS 1060: Part 2:2022
Adhesives for wood
Part 2: Requirements for structural application
Price Code: Gr. 6
9 pages

This part of ZWS 1060 specifies requirements for adhesives to be used in load-bearing structures.

ZWS 1061:2022
Health, safety and environmental guidelines for the construction and operation of timber treatment plants
Price Code: Gr. 8
37 pages

This standard serves as a practical guide on occupational health and safety and environmental aspects in and around timber treatment plants with the intention to manage health and safety and environmental risks. It is applicable to any treatment process in which waterborne preservatives, flame-retardants, anti-sapstain chemicals, organic solvent-based preservatives or oil-borne preservatives are used.

ZWS 1062:2022
The preservative treatment of timber
Price Code: Gr. 7
26 pages

This standard covers the classification of timber preservatives, hazard conditions for timber, the solvents used for timber preservatives, the preparation of timber for treatment, the various treatment processes and the use of preservative-treated timber. Recommendations relating to the handling and safety of preservative-treated timber are also given. This standard does not cover the treatment of timber with fire retardants.

ZWS 1065:2024
Noise and Vibration
Price Code: Gr. 6
11 pages

This Zimbabwe Standard gives the minimum emissions of noise and vibration into the environment which are necessary to preserve and maintain public health and environment in Zimbabwe, focussing on the following sources and environments:

a) Sources
- Industrial facilities
- Mining facilities
- Vehicles/mobile equipment
- Hand tools/ entrepreneur machines
- Religious and entertainments facilities

b) Environments
- Sensitive areas
- Residential areas
- Commercial areas/zones
- Industrial areas /zones
- Mixed zones

Note 1. This standard does not deal with calculation procedures for noise and vibration levels.

Note 2. The noise and from agriculture equipment at farmlands is not covered by this standard.
Note 3. The titles of the publications referred to in this standard are listed in the Foreword.

ZWS 1068:2023
Reusable menstrual cups
Price Code: Gr. 6
14 pages

This specification covers the manufacturing, distribution and performance requirements for reusable menstrual cups.

ZWS 1069:1994
Canned tomato juice, canned tomatojuice cocktail and canned tomato cocktail
Price Code: Gr. 5
22 pages
Amended by MD 457: 1979: MD 599: 1999
First published 1970, as CAS S24,
First Reprinted 2021, as ZWS 1069.

The specification covers the manufacture, production, processing and canning of tomato juice, tomato juice cocktail and tomato cocktail. No methods are given for bacteriological control. In this country, bacteriological testing of food products is regularly carried out by competent bacteriologists in the Public Health Laboratories of the main centres of population, using internationally accepted methods. For the purpose of this specification, reports on bacteriological testing issued by such laboratories shall be deemed satisfactory.

ZWS 1070:1999
Canned orange juice and canned grapefruit juice
Price Code: Gr. 4
15 pages
Amended by MD 601: 1999
First published 1971 as CAS S30,
First reprint 2021, as ZWS 1070

The specification covers the production, processing and canning of orange juice and grapefruit juice. No methods are given for bacteriological control. Locally, bacteriological testing of food products is regularly carried out by competent bacteriologists in the Public Health Laboratories of the main centres of population. For the purposes of this specification, reports on bacteriological testing issued by such laboratories shall be deemed satisfactory.

ZWS 1073:2001
Canned vegetables
Price Code: Gr. 4
74 pages
First published 1970 as CAS S5,
First reprint 2022, as ZWS 1073

This specification covers the manufacture, production, processing or treatment of canned vegetables (including spaghetti) of the following kinds and of the types and grades described herein: Asparagus, Beans (baked beans in tomato sauce, Beans (baked beans in tomato sauce with pork, Butter beans, Green beans, Beetroot, Carrots, Carrots and peas, Cauliflower, Green peas, Mixed vegetables, Mixed vegetables and meat, Mushrooms, Potatoes, Mashed potatoes, Sauerkraut, Spaghetti, Spaghetti and meat balls in gravy, Spaghetti bolognaise, Sweetcorn - cream style, Sweetcorn - whole kernel, Tomatoes, Tomato-and-pimento concentrate, Tomato concentrate, Tomato paste, Tomato puree, Turnips.issued by such laboratories shall be deemed satisfactory.

ZWS 1074:1999
Vinegar
Price Code: Gr. 7
6 pages
First published, 1972 as CAS S41,
Second reprint 1999, as ZWS 1074
Replaces CAS S41:1972

This specification covers three distinct types of vinegar as follows: Malt vinegar; Fruit vinegar (cider, grape, etc.) and Spirit vinegar. No methods are given for bacteriological control. Locally, bacteriological testing of food products is regularly carried out by competent population and in the laboratories of the Association, using internationally accepted methods.

ZWS 1075:1999
Quick frozen vegetables
Price Code: Gr. 6
10 pages
First published May 1967 as CAS S6,
Second reprint 2022, as ZWS 1075
Replaces CAS S6:1972

This specification covers the manufacture, production, processing or treatment of quick-frozen vegetables. No methods are given for bacteriological control. Locally, bacteriological testing of food products is regularly carried out by competent bacteriologists in the Public Health Laboratories of the main centres of population and in the laboratories of the Association, using internationally accepted methods. For the purpose of this specification, reports on bacteriological testing issued by such laboratories shall be deemed satisfactory.

ZWS 1076:1964
Concrete pipe laying design
Price Code: Gr. 8
46 pages
Endorsement of AS CA33:1962
First reprinted 2022

Sets out recommended design practice for the laying of precast concrete drainage pipes. Includes methods of calculating loads according to installation conditions and gives the relevant load factors.

ZWS 1077:1979
Binder distributors for road surface dressing
Price Code: Gr. 7
27 pages
Reprinted 2006
First reprint, 2022

Covers the design, testing and calibration of road binder distribution apparatus.

ZWS 1078:1974
Test methods for bitumen
Price Code: Gr: 8
66 pages
Replaces: ZWS A11: 1961
Replaces ZWS 110
First reprinted, 2022

This Zimbabwe standard gives methods of test for bitumens in bitumen containing compositions used for building, road engineering and electrical purposes.

ZWS 1079:2022
Uniform provisions concerning the approval of M2 and M3 small capacity vehicles with regard to their general construction
Price Code: Grade 5
61 pages

This Regulation applies to single-deck rigid vehicles of categories M2 and M3 designed and constructed for the carriage of seated or standing persons and having a capacity not exceeding 22 passengers in addition to the driver.

ZWS 1080:2022
Nicotine-containing tobacco free oral product 3-(1- methyl, 2-Pyrrodinyl) Pyrindine
Price Code: Grade 6
14 pages

This Zimbabwean Standard gives guidance on ingredient requirements, nicotine limits, product information and labelling and product certification requirements for Tobacco-Free, Nicotine Containing Oral Products exclusively intended for oral use, where the recommended method of consumption results in uptake of the nicotine via the oral mucosa.

ZWS 1081:2022
Uniform provisions concerning the approval of vehicles with regard to specific requirements for the electric power train
Price Code: Grade 8
87 pages

Part I: Safety requirements with respect to the electric power train of road vehicles of categories M and N , with a maximum design speed exceeding 25 km/h, equipped with one or more traction motor(s) operated by electric power and not permanently connected to the grid, as well as their high voltage components and systems which are galvanically connected to the high voltage bus of the electric power train. Part I of this regulation does not cover post-crash safety requirements of road vehicles.
Part II: Safety requirements with respect to the Rechargeable Energy Storage System (REESS), of road vehicles of categories M and N equipped with one or more traction motors operated by electric power and not permanently connected to the grid. Part II of this Regulation does not apply to REESS(s) whose primary use is to supply power for starting the engine and/or lighting and/or other vehicle auxiliaries systems.

ZWS 1082:2022
Uniform provisions concerning the approval of passenger cars powered by an internal combustion engine only, or powered by a hybrid electric power train with regard to the measurement of the emission of carbon dioxide and fuel consumption and/or measurement of electric energy consumption and electric range, and or categories M_1 and N_1 vehicles powered by an electric power train only with regard to the measurement of electric energy consumption and electric range
Price Code: Grade 8
110 pages

This Regulation applies to vehicles of categories M1 and N1 with regard to: The measurement of the emission of carbon dioxide (CO2) and fuel consumption and/or to the measurement of electric energy consumption and electric range of vehicles powered by an internal combustion engine only or by a hybrid electric power train, And to the measurement of electric energy consumption and electric range of vehicles powered by an electric power train only. It does not apply to a category N1 vehicle if both: The engine type fitted to that type of vehicle has received type approval pursuant to Regulation No. 49, and The total annual worldwide production of N1 vehicles of the manufacturer is less than 2,000 units.

ZWS 1083:2023
Uniform provisions concerning the approval of:
I. Specific components of motor vehicles using com-pressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion system
II. Vehicles with regard to the installation of specific com-ponents of an approved type for the use of compressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion System
Price Code: Gr.11
218 pages

This Regulation applies to:
Part I: Specific components for vehicles of category M and N using compressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion system;
Part II: Vehicles of category M and N1 with regard to the installation of specific components, for the use of compressed natural gas (CNG) and/or liquefied natural gas (LNG) for propulsion, of an approved type.

ZWS 1085:2022
Uniform provisions concerning the approval of specific LPG (liquefied petroleum gases) retrofit systems to be installed in motor vehicles for the use of LPG in their propulsion system and specific CNG (compressed natural gas) retrofit systems to be installed in motor vehicles for the use of CNG in their propulsion system
Price Code: Grade. 8
58 pages

This Regulation applies to:
Part I: Specific LPG retrofit systems to be installed in motor vehicles for the use of LPG in the propulsion system.
Part II: Specific CNG retrofit systems to be installed in motor vehicles for the use of CNG in the propulsion system.

ZWS 1087:2022
Structural timber – characteristic values of strength-graded timber – sampling, full-size testing and evaluation
Price Code: Grade 7
36 pages

This standard provides requirements for sampling, testing and assessing the characteristic values of structural properties for specific grades and sizes of sawn timber, including finger-jointed timber and laminated timber. This standard does not apply to custom-designed laminated products, plywood or sleepers..

ZWS 1088:1975
Jelly powders
Price Code: Gr. 5
3 pages
First published 1968, as CAS S16,
First reprint 2022, as ZWS 1088.
Replaces CAS S16:1968

This specification applies to jelly powders made from gelatine, sugar, flavours and colouring materials, which may contain salts, fruit acids and buffering agents.

ZWS 1089:1999
Baking powder
Price Code: Gr. 5
5 pages
Replaces CAS S35:1999

This specification covers the manufacture, packing, labelling and testing of baking powder. No methods are given for bacteriological control. Locally, bacteriological testing of food products is regularly carried out by competent bacteriologists in the Public Health Laboratories of the main centres of population and the laboratories of the Association, using internationally accepted methods. For the purpose of this specification, reports on bacteriological testing issued by such laboratories shall be deemed satisfactory.

ZWS 1090:1999
Icing sugar
Price Code: Gr. 5
6 pages
First reprint 2022, as ZWS 1090
Replaces CAS S40:1999

This specification sets out the physical, chemical, microbiological packing, marking and sampling requirements for one grade of icing sugar. No methods are given for bacteriological control. Locally, bacteriological testing of food products is regularly carried out by competent bacteriologists in the Public Health Laboratories of the main centres of population and in the laboratories of the Association, using internationally accepted methods. For the purpose of this specification, reports on bacteriological testing issued by such laboratories shall be deemed satisfactory.

ZWS 1092:2023
Requirements for power operated threshing and shelling equipment
Price Code: Gr. 4
4 pages

This standard specifies the general requirements for power operated threshing and shelling equipment. This standard does not apply to manual threshers and shellers.

ZWS 1093:1974
Gravy Powder
Price Code: Gr. 4
6 pages
Replaces, ZWS S38
First Reprint 2022, as ZWS 1093

This specification covers the manufacture, packing, labelling and testing of gravy powder. No methods are given for bacteriological control. Locally, bacteriological testing of food products is regularly carried out by competent bacteriologists in the Public Health Laboratories of the main centre s of population and in the laboratories of the Association, using internationally accepted methods. For the purpose of this specification, reports on bacteriological testing issued by such laboratories shall be deemed satisfactory.

ZWS 1094:1973
Chutney
Price Code: Gr. 6
10 pages
Replaces, ZWS S37
First Reprint 2022, as ZWS 1094

This specification covers the complete range of hot and mild condiments known as chutneys prepared from a wide variety of fruits and vegetables. No methods are given for bacteriological control. Locally, bacteriological testing of food products is regularly carried out by competent bacteriologists in the Public Health Laboratories of the main centres of population and in the laboratories of the Association, using internationally accepted methods.For the purpose of this specification, reports on bacteriological testing issued by such laboratories shall be deemed satisfactory.

ZWS 1096:2023
Laundry detergent (for use in non – automatic domestic washing machines)
Price Code: Gr. 4
7 pages

This Zimbabwe standard specifies characteristics of the type of laundry detergent intended for the washing (by hand and in non-automatic domestic washing machines) in either hard or soft water of textiles made of cotton or of cotton and synthentic fibre yarms.

ZWS 1097:2023
Distribution transformers
Price Code: Gr. 8
54 pages

This standard specifies requirements for single-phase and three-phase distribution transformers of the oil-immersed type, that
a) Are category-sized in accordance with IEC 60076-1 up to and including 3150 kVA,
b) Have rated maximum voltages (Um) that do not exceed 36 kV,
c) Have uniformly insulated windings,
d) Have a high-voltage and a low-voltage winding or, in the case of an auto-transformer, a series and a common winding and, in each case, if necessary, a stabilizing winding or an auxiliary winding, and
e) Are suitable for de-energized tap changing only.
This standard covers transformer that have any combination of rated primary and secondary voltages.

ZWS 1098:2023
Boot and shoe laces
Price Code: Gr. 6
8 pages
First published 1973, as CAS Z23,
First Reprint 2023, as ZWS 1098
Replaces CAS Z23

This specification applies to various types of flat or tubular laces, including was-finished laces, braided from yarns of nylon, vinyl, rayon or cotton or from a combination of these materials. It lays down the requirements for make-up, colour, packing, sampling and methods of tests.

ZWS 1100:2023
Men's heavy Oxford style shoes for services use
Price Code: Gr. 6
13 pages
First Published in 1972 as CAS Z18
First Reprint 2023 as ZWS 1100

This specification covers men's heavy shoes, in sizes 5 to 14 by half sizes and fitting 6, as follows:
Oxford type shoes, with straight toe caps, good quality side leather uppers, leather, synthetic or fabric quarter linings and vamp linings, leather outer soles, and leather heels with rubber top pieces.

ZWS 1101:2023
Men's military style service boots
Price Code: Gr. 6
8 pages
First published 1972 as CAS Z20,
First Reprinted 2023 as ZWS 1101
Replaces CAS Z20

This Zimbabwe specification covers the following six types of men's military style boots of the Derby pattern, made according to the chain or lockstitch principle, or with stuck-on leather soles, or with rubber soles, or with vulcanized and bonded soles, in sizes 5 to 14 inclusive.

ZWS 1102:2023
Requirements for Agricultural/ General Purpose Tractors
Price Code: Gr. 4
7 pages

This specification covers the requirements for general purpose or agricultural tractors. This specification does not apply to:
a) Tractors that have been previously registered in Zimbabwe;
b) Experimental or prototype agricultural tractors that have been constructed or imported for the purpose of testing, assessment or development; and
c) Industrial tractors, earthmoving tractors and purpose-built forestry tractors. Where a Zimbabwean national standard or an international standard is incorporated by reference into this specification, only the technical requirements/specifications for the tractor, and the tests to verify compliance, apply. This standard specifies the terminology for agricultural tractors designed primarily for safe use in agricultural operations for the production of food and fiber. This specification is intended to establish uniformity for general purpose or agricultural tractors.

ZWS 1103:2023
Redeposition index of laundry detergents
Price Code: Gr. 4
5 pages

This test method specifies a method for the determination of the redeposition index of laundry detergents.

ZWS 1104:2023
Fluorescent whitening agent content of laundry detergents
Price Code: Gr. 4
4 Pages

This test method specifies a method for the determination of the fluorescent whitening agent content of laundry detergents.

ZWS 1105:2023
Chemical damage to cotton fibres by laundry detergents
Price Code: Gr. 4
2 Pages

This test method specifies a method for the determination of the chemical damage to cotton fibres by laundry detergents.

ZWS 1106:2023
Water-insoluble matter content of laundry detergents
Price Code: Gr. 4
1 Page

This standard specifies a method for the determination of the water-insoluble matter content of laundry detergents.

ZWS 1107:2023
Cleaning efficiency of high-foam laundry detergents
Price Code: Gr. 4
5 Pages

This test method specifies a method for the determination of the cleaning efficiency of high-foam laundry detergents.

ZWS 1108:2023
London dry gin
Price Code: Gr. 2
2 pages
Amended by MD 643: 2002
Incorporates AMD 695

This specification covers quality of alcohol, alcohol content, flavouring, chemical, physical, packing and marking requirements of London Dry Gin.

ZWS 1111:2023
Cleaning efficiency of low-foam laundry detergents
Price Code: Gr. 4
5 Pages

This test method specifies a method for the determination of the cleaning efficiency of low-foam laundry detergents.

ZWS 1113:2024
Vitamin-mineral supplement licks
Price Code: Gr. 6
12 Pages

This Zimbabwe Standard to provide guidance on the production and feeding of the vitamin-mineral supplement licks to ruminant (sheep, goats and cattle) and game animals.
Note. The titles of the publications referred to in this standard are listed in the Foreword.

ZWS 1114:2023
Marking articles made of gold
Price Code: Gr. 4
4 Pages
Identical to R.N.S Z2:1961.
First published, 1961 as R.N.S Z2,
First reprint, 2023 as ZWS 1114

This specification covers the marking of gold articles manufactured in Zimbabwe.

ZWS 1117:2024
Chili Sauce
Price Code: Gr. 6
10 Pages
Technically equivalent to Codex STAN 306:2021.

This Standard applies to chili sauce, as defined in Section 2 below, and offered for direct consumption, including for catering purposes or for repacking if required. It does not apply to the product when indicated as being intended for further processing.

ZWS 1118:2024
Processed Tomato Concentrates
Price Code: Gr. 6
8 Pages
Technically equivalent to Codex STAN 57-1981.

This Standard applies to processed tomato concentrate and offered for direct consumption, including for catering purposes or for repacking if required. This Standard also applies to the product when indicated as being intended for further processing. The Standard does not include products that contain seeds and skins such as “pizza toppings” and other “homestyle” products as well as products commonly known as tomato sauce, chilli sauce, and ketchup, or similar products which are highly seasoned products of varying concentrations containing characterising ingredients such as pepper, onions, vinegar, etc., in quantity that materially alter the flavour, aroma and taste of the tomato component.

ZWS 1119:2024
Requirements and Guidance for Establishing Containerized/Portable Fuel Retail Stations in Rural and Remote Areas
Price Code: Gr. 6
18 Pages

This standard is applicable to all containerized/portable fuel retail stations installed in certain areas with the approval of relevant authorities subject the requirements contained in these guidelines.

ZWS 1120:2023
Aluminium sulphate for use in water treatment intended for human consumption
Price Code: Gr. 4
14 Pages
Based on Rwanda Standard RS 353-1:2017

This Zimbabwe Standard describes the characteristics, specifies the requirements and gives reference to the analytical methods of aluminium sulphate. It gives information on its use in water treatment and also determines the rules relating to safe handling and use of aluminium sulphate. This standard is applicable only to aluminium sulphate used for treatment of water intended for human consumption.

ZWS 1121:2024
E-Vaping products
Price Code: Gr. 4
15 Pages

This standard is applicable to electronic vaping products intended for the production of aerosol from e-liquids for consumption by inhalation. It is applicable to devices intended for use with or without nicotine content in the aerosol produced. This standard is also applicable to e-liquid containers, filling mechanisms and accessories, electrical and other, intended for use with ENDS. This standard specifies the minimum safety and technical requirements for vaping products, e-liquid containers, and associated accessories when operated and maintained in the manner prescribed by the manufacturer. This standard exclude any tobacco product and pharmaceutically regulated products in any form or manner. Thereby electronic tobacco delivery systems that heat tobacco to produce aerosols through tobacco sticks are excluded from these standards.

ZWS 1122:2024
Kombucha
Price Code: Gr. 2
5 Pages

This Zimbabwe standard specifies the requirements and the methods of sampling and tests for Kombucha fermented beverages, both alcoholic and non-alcoholic. Where this Zimbabwe Standard conflicts in any way with the relevant Government Acts, Regulations and Local Municipal By-laws, the requirements of the Government Acts and Regulations, and of the local Municipal By-laws take precedence over those in this standard.

ZWS 1128:2024
Acetylene - Code of Safety
Price Code: Gr. 5
9 Pages
Based on Indian standard IS 14814

This standard describes properties of acetylene, the nature of hazards associated with it and essential information on storage, handling, packing, labelling, disposal of waste, spillage/leakages, training of personnel, personnel protective equipment and first-aid. This standard, however, does not deal with the specifications for

design of buildings, chemical engineering plants, storage vessels and equipment for operation controls.

ZWS 1129:2024
Dissolved Acetylene (Gas)
Price Code: Gr. 6
15 Pages
Based on IS 308

This standard specifies the requirements, and methods of sampling and test for dissolved acetylene (gas).

ZWS 1130:2024
Nitrogen Gas
Price Code: Gr. 6
28 Pages
Based on IS 1747

This Zimbabwe standard specifies the requirements, and methods of sampling and testing for nitrogen (gas).

ZWS 1131:2024
Compressed and Liquid Oxygen for industrial use
Price Code: Gr. 6
10 Pages
Based on IS 309

This standard specifies requirements and methods of sampling and tests for compressed and liquid oxygen for industrial use. This draft standard does not cover aviation oxygen or medical oxygen.

ZWS 1133:2024
Potato crisps
Price Code: Gr. 5
5 Pages
First published in 1971 as CAS S33
First Reprinted 2024 as ZWS 1133

This specification covers the manufacture, packing, labelling and testing of potato crisps. No methods are given for bacteriological control. Locally, bacteriological testing of food products is carried out by competent bacteriologists in the public health Laboratories of main centers of population and the laboratories of the Association, using internationally accepted methods. For the purpose of this specification, reports on bacteriological testing issued by such laboratories shall be deemed satisfactory. Where this Zimbabwe standard conflicts in any way with the relevant Government Acts and Regulations and local Municipal By-laws, the requirements of the Governmment Acts and Regulations and of the local Municipal By-laws take precedence over those in this standard.

ZWS 1134:2026
Mechanical components for tendon based rock support systems
Price Code: Gr. 6
14 Pages

This standard gives the performance requirements for mechanical components for tendon underground based rock support systems for use in the mining industry.

ZWS 1140:2025
Aggregates from synthetic plastic waste sources for concrete
Price Code: Gr. 5
15 Pages

This Zimbabwe Standard covers modified synthetic thermoplastic waste materials for use in the production of normal structural concrete. The materials may have been produced by washing, extrusion and related processes to ensure compliance with the requirements of this standard.

ZWS EN ADOPTIONS

ZWS EN 196: 2000
Cement
Part 1: Determination of strength
Price Code: Gr. 6
17 pages
Identical to EN 196-1: 1994
Amended by MD 634: 2001
Replaces ZWS 307: 1993

Describes a method of determining the compressive and flexural strengths of cement mortar.

Part 2: Chemical analysis of cement
Price Code: Gr. 6
21 pages

Identical to EN 196: Part 2: 1994
Replaces ZWS 307: 1993

Describes the procedures for chemical analysis of cement.

Part 3: Determination of setting time and soundness of cements
Price Code: Gr. 4
8 pages
Identical to EN 196: Part 3: 1994
Replaces ZWS 307: 1993

Describes the methods for determination setting time and soundness of cement.

Part 5: Pozzolanicity test for pozzolanic cements
Price Code: Gr. 3
6 pages
Identical to EN 1996: Part 5: 1994
Replaces ZWS 307: 1993

Describes the method of measuring the pozzolanicity of pozzolanic cements conforming to ENV 197-1.

Part 6: Determination of fineness
Price Code: Gr. 4
9 pages
Identical to EN 1996: Part 6: 1989
Replaces ZWS 307: 1993

Describes two methods of determining the fineness of cement.

Part 7: Methods of taking and preparing samples of cement
Price Code: Gr. 5
13 pages
Identical to EN 196: Part 7: 1989
Replaces ZWS 307: 1993

Describes only the equipment to be used, the methods to be followed and the provisions to be complied with for taking samples of cement representatives of given lots for testing the quality of products prior to, during or after delivery.

Part 21: Determination of the chloride, carbon dioxide and alkali content of cement
Price Code: Gr. 5
13 pages
Identical to EN 196: Part 21: 1989
Replaces ZWS 307: 1993

Lays down the methods for the determination of the chloride, carbon dioxide and alkali content of cement

ZWS EN 197: Part 1:2011
Cement
Part 1: Composition, specifications and conformity criteria for common cements
Price Code: Gr. 7
33 pages
Identical to EN 197: Part 1: 2011
Superseeds ZWS EN 197: Part 1:2000
Replaces ZWS 307: 1993

This European Standard defines and gives the specifications of 27 distinct common cements, 7 sulfate resisting common cements as well as 3 distinct low early strength blast furnace cements and 2 sulfate resisting low early strength blast furnace cements and their constituents. The definition of each cement includes the proportions in which the constituents are to be combined to produce these distinct products in a range of nine strength classes. The definition also includes requirements which the constituents have to meet. It also includes mechanical, physical, and chemical requirements. Furthermore, this standard states the conformity criteria and the related rules. Necessary durability requirements are also given. In addition to those sulfate resisting cements defined in the present document, other cements conforming either to this standard or to other standards, European or national, have been nationally demonstrated to have sulfate resisting properties. These cements which are listed in Annex A, are considered by different CEN Member countries as sulfate resisting within the limits of their territory.

ZWS EN 197: Part 2:2014
Cement
Part 2: Conformity evaluation
Price Code: Gr. 7
22 pages
Identical to EN 197: Part 2: 2014
Superseeds ZWS EN 197:2000
Replaces ZWS 307: 1993

This European Standard specifies the scheme for the assessment and verification of constancy of performance (AVCP) of cements to their corresponding product specification standards, including certification of constancy of performance by a product certification body. The standard provides technical rules for factory production control by the manufacturer, including autocontrol testing of samples, and for the tasks of the product certification body. It also provides rules for actions to be followed in the event of non-conformity, the procedure for the AVCP and requirements for dispatching centres. In this European Standard, the word “cement” is used to refer both to common cements as defined in EN 197 1 and to other cements and binders for which the relevant product specification standard makes reference to this European Standard and which are submitted for certification. Such a cement is produced at a given factory and belongs to a particular type and a particular strength class, as defined and specified in the relevant product specification standard.

ZWS EN 197: Part 5:2021
Cement
Part 5: Portland-composite cement CEM II/C-M and composite cement CEM VI
Price Code: Gr. 7

6 pages
Identical to EN 197: Part 5: 2021

This document deals with Portland-composite cement CEM II/C-M, not covered by EN 197-1, and a different type of Composite cement CEM VI, also not covered by EN 197-1, whose intended use is the preparation of concrete, mortar, grout etc. This document does not cover:

Common cement covered by EN 197-1; very low heat special cement covered by EN 14216; supersulfated cement covered by EN 15743; calcium aluminate cement covered by EN 14647; and masonry cement covered by EN 413-1.

ZWS EN 413: Part 1:2011
Masonry cement
Part 1: Composition, specifications and conformity criteria
Price Code: Gr. 7

21 pages
Identical to EN 413: Part 1:2011
Superseeds ZWS ENV 413-1:2004
Replaces ZWS A22: 1967

This European Standard specifies the definition and composition of masonry cements as commonly used in Europe for the production of mortar for bricklaying and blocklaying and for rendering and plastering. It includes physical, mechanical and chemical requirements and defines strength classes. EN 413-1 also states the conformity criteria and the related rules. Necessary durability requirements are also given.

Part 2: Test methods
Price Code: Gr. 5
13 pages
1dentical to ENV 413: Part 2: 1994
Replaces ZWS A22: 1967

Describes reference and alternative test methods to be used when testing masonry cement to assess the conformity to ZWS ENV Part 1. It gives the tests on fresh mortar for consistence water retention, an contact and workability.

ZWS EN 1435:2002
Non-destructive examination of welds –Radiographic examination of welded joints
Price Code: 6
21 pages
Identical to EN 1435: 1997

Specifies fundamental techniques of radiography.

ZWS EN 1561:2003
Founding – grey cast irons
Price Code: Gr. 6
17 pages
Identical EN 1561: 1997

Specifies the properties of unalloyed and low-alloyed grey cast iron used for castings, which have been manufactured in sand moulds or in moulds with comparable thermal behavior.

ZWS EN 1659:2023
In vitro diagnostic systems - culture media for microbiology – Terms and definitions
Price Code: Gr. 4
3 pages
Identical EN 1659:1996

This European Standard provides terms for different classifications of culture media used in microbiology (bacteriology and mycology).

ZWS EN 12322:1999
In vitro diagnostic medical devices – Culture media for microbiology – Performance criteria for culture media

Price Code: Gr. 7
20 pages
Identical to EN 12322:1999
This European Standard specifies requirements for the performance of culture media. It is concerned with the traceability, comparability, reproducibility and suitability of culture media used in microbiological laboratories. These characteristics are achieved by applying the quality criteria outlined in this standard. This European Standard is applicable to :
Commercial organizations distributing media to microbiology laboratories in ready-to-useform, as dehydrated media or as semi-finished media (see 2.5 in EN 1659 : 1996);
Non commercial organizations that distribute media to satellite locations;
Laboratories that prepare culture media for their own use.
Cell culture media are not covered by this standard.

ZWS EN 12350: Part 1:2019
Testing fresh concrete
Part 1: Sampling and common apparatus
Price Code: Gr. 4
5 pages
Identical to EN 12350-1:2019

This document specifies two procedures for sampling fresh concrete, by composite sampling and by spot sampling.
NOTE 1: The requirement for remixing the sample before tests on the fresh concrete, or before making test specimens, is included in the relevant standards. When mixing and sampling concrete is done in a laboratory, different procedures may be required.
NOTE 2: In this case Clause 6, item g) applies.
Additionally, this standard lists common apparatus mentioned in two or more standards of EN 12350 series and EN 12390-2.

Part 2: Slump test
Price Code: Gr. 4
5 pages
Identical to EN 12350-2:2019

This document specifies a method for determining the consistence of fresh concrete by the slump test. The slump test is sensitive to changes in the consistence of concrete, which correspond to slumps between 10 mm and 210 mm. Beyond these extremes the measurement of slump can be unsuitable and other methods of determining the consistence should be considered. If the slump continues to change over a period of 1 min after withdrawing of the cone, the slump test is not suitable as a measure of consistence. The test is not suitable when the declared value of D of the coarsest fraction of aggregates actually used in the concrete (Dmax) is greater than 40 mm.

ZWS EN 12390:2012
Testing hardened concrete
Part 1: Shape, dimensions and other requirements for specimens and moulds
Price Code: Gr. 4
16 pages
Identical to EN 12390-1: 2012

This European Standard specifies the shape, dimensions and tolerances of cast concrete test specimens in the form of cubes, cylinders and prisms, and of the moulds required to produce them.
NOTE: The tolerances specified in this European Standard are based on the needs of strength testing, but they can be applicable to tests for other properties.

Part 2:2009: Making and curing specimens for strength tests
Price Code: Gr. 4
4 pages
Identical to EN 12390-2:2009

This European Standard specifies methods for making and curing test specimens for strength tests. It covers the preparation and filling of moulds, compaction of the concrete, levelling the surface, curing of test specimens and transporting test specimens.

Part 3:2009 Compressive strength of test specimens
Price Code: Gr. 6
18 pages
Identical to EN 12390-3:2009

This European Standard specifies a method for the determination of the compressive strength of test specimens of hardened concrete.

Part 4:2019 Compressive strength – Specification for testing machines
Price Code: Gr. 7
12 pages
Identical to EN 12390-4:2019

This document specifies the requirements for the performance of compression testing machines for the measurement of the compressive strength of concrete.

Part 7:2019 Density of hardened concrete
Price Code: Gr. 5
8 pages
Identical to EN 12390-7:2019

This document specifies a method for determining the density of hardened concrete. It is applicable to lightweight, normal-weight and heavy-weight concrete. It differentiates between hardened concrete in the following states:
1) as-received;
2) water saturated;
3) oven-dried.
The mass and volume of the specimen of hardened concrete are determined and the density calculated.

ZWS EN 14683:2019
Medical face masks –Requirements and Test Methods
Price Code: Gr. 7
11 pages
Identical to EN 14683

Specifies construction ,design ,performance requirements and test methods for medical face masks intended to limit the transmission of infective agents from staff to patients during surgical procedures.

ZWS IEC ADOPTIONS

ZWS IEC 76:1998
Part 5: Ability to withstand short circuit
Price Code: Gr. 4
12 pages
Identical to IEC 76 Part 5: 1982

Contains requirements with regards to ability to withstand short circuit and demonstration of thermal and dynamic ability to withstand short circuit.

ZWS IEC 335-2-24:1998
Safety of household and similar electrical appliances
Part 2-24: Particular requirements for refrigerators, food freezers and ice-makers
Price Code: Gr. 7
37 Pages
Identical to IEC 335: Part 2: 24: 1992

Specifies the essential characteristics for household frozen food storage cabinets and food freezers which are wholly factory assembled.

ZWS IEC 432:1995
Safety specifications for incandescent lamps
Part 1: Tungsten filament lamps for domestic and similar general lighting purposes
Price Code: Gr. 7
80 pages
Identical to IEC 432: Part 1: 1993

Specifies the safety and interchangeability requirements of tungsten filament incandescent lamps for general lighting service.

ZWS IEC 439
Low-voltage switchgear and control gear assemblies
Part 1: 1996: Type-tested and partially type-tested assemblies
Price Code: Gr. 9
103 pages
Amended by MD 1: 1998
Identical to IEC 439: Part 1: 1992

Applies to low voltage switchgear and control gear assemblies, type-tested assemblies (TTA) and partially type-tested assembles (PTTA), the rated voltage of which does not exceeds 1 000 V A.C at frequencies not exceeding 1 000Hz or 1 500 V D.C.

ZWS IEC 439
Part 2:1998 Particular requirements for bus bar trunking systems (busways)
Price Code: Gr. 6
18 pages
Identical to IEC 439: Part 2: 1996

Applies to busbar trunking systems intended to supply luminaires.

Part 2:1998 Particular requirements for bus bar trunking systems (busways)
Price Code: Gr. 6
18 pages
Identical to IEC 439: Part 2: 1996

Applies to busbar trunking systems intended to supply luminaires.

Part 3: 1998: Particular requirements for low-voltage switchgear and controlgear assemblies to be installed in places where unskilled persons have access to their use – Distribution boards
Price Code: Gr. 9
31 pages
Identical to IEC 439: Part 3: 1990

Give supplementary requirements for such enclosed distribution boards (DBU), which are stationary, type tested assemblies (TTA) for indoor use.

Part 4:1998 Particular requirements for assemblies for construction sites (ACS)
Price Code: Gr. 8
46 pages
Identical to IEC 439 Part 4: 1990

Applies to type-tested assemblies (TTA) intended for use on construction sites.

Part 5: Particular requirements for assemblies intended to be installed outdoors in public places – Cable distribution cabinets (CDCs) for power distribution in networks
Price Code: Gr. 7
26 pages
Identical to IEC 439: Part 5: 1996

Gives supplementary requirements for cable distribution cabinets (CDCs), which are stationary, type-tested assemblies (TTA) for outdoor installation in places which are exposed to the public.

ZWS IEC 947:1998
Low-voltage switchgear and control gear
Part 1: General rules
Price Code: Gr. 10
307 pages
Identical to IEC 947: Part 1: 1996

Applies to switchgear and control gear intended to be connected to circuits, the rated voltage of which does not exceed 1 000 V A.C or 1 500 V D.C.

Part 2: Circuit-breakers
Price Code: Gr. 9
127 pages
Replaces ZWS 299: 1991
Identical to IEC 947: Part 2: 1995

Applies to circuit-breakers the main contacts of which are intended to be connected to circuits, the rated voltage of which does not exceed 1 000 V A.C or 1 500 V D.C.

Part 3: Switch-disconnectors, and fuse-combination units
Price Code: Gr. 8
54 pages
Identical to IEC 947: Part 3: 1990

Applies to switches, disconnectors, switch-disconnectors and fuse-combination units to be used in distribution circuits and motor circuits of which the rated voltage does not exceed 1 000 V A.C.

ZWS IEC 60034.1:2014
Rotating electrical machine
Part 1: Rating and performance
Not for sale
140 pages
Identical to IEC 60034.1:2010

Applicable to all rotating electrical machines except those covered by other IEC standards.

Part 3:2017 Specific requirements for synchronous generators driven by steam turbines or combustion gas turbines
Not for sale
27 pages
Identical to IEC 60034.3:2007

Applies to three-phase synchronous generators, having rated outputs of 10MVA and above driven by steam turbines or gas turbines.

Part 4:2017 Methods for determining synchronous machine quantities from tests
Not for sale
75 pages
Identical to IEC 60034.4:2008

Applies to three-phase synchronous machines of 1kVA rating and larger with rated frequency of not greater than 500Hz and not less than 10 Hz.

Part 5: Degree of protection provided by the integral design of rotating electrical machines (IP CODE) Classification
Not for sale
41 pages
Identical to IEC 60034.5:2006

Applies to the classification of degrees of protection provided by enclosures for rotating electrical machines. It defines the requirements for protective enclosures that are in all other respects suitable for their intended use and which from the point of view of materials and workmanship ensure that the properties dealt with in this standard are maintained under normal conditions of use.

Part 6: Methods of cooling (IC CODE)
Not for sale
39 pages
Identical to IEC 60034.6:2010

Part 7: Classification of types of construction, mounting arrangements and terminal box position (IM CODE)
Not for sale
49 pages
Identical to IEC 60034.7:2010

Specifies the IM code a classification of types of construction, mounting arrangements and the terminal box position of rotating electrical machines.

Part 8: Terminal marking and direction of rotation
Not for sale
33 pages
Identical to IEC 60034.8:2010
Applies to a.c. and d.c. machines.Turbine type synchronous machines are excluded from this standard.

Part 11: Thermal protection
Not for sale
25 pages
Identical to IEC 60034.11:2004

Specifies requirements relating to the use of thermal protectors and thermal detectors incorporated into the stator windings or placed in other suitable positions in inductionmachines in order to protect them against serious damage due to thermal overloads.

Part 22: AC Generators for reciprocating internal combustion (RIC) engine driven generating sets
Not for sale
20 pages
Identical to IEC 60034.22:2009

Establishes the principal characteristics of a.c. generators under the control of their voltage regulators when used for reciprocating internal combustion (RIC) engine driven generating set applications and supplements the requirements.

Part 23: Specification for the refurbishing of rotating electrical machines
Not for sale
45 pages
Identical to IEC 60034.22:2009

Covers the activities necessary to ensure the satisfactory rewinding and refurbishment of all types and sizes of rotating electrical machines.

ZWS IEC 60050:2017
International Electrotechnical Vocabulary
Part 601: Generation, transmission and distribution of electricity - General
Not for sale
21 pages
Identical to IEC 60050-601:1985

Part 602: Generation, transmission and distribution of electricity - Generation
Not for sale
30 pages
Identical to IEC 60050-602:1983

Part 603: Generation, transmission and distribution of electricity – Power system planning and management
Not for sale
33 pages
Identical to IEC 60050-603:1986

Part 605: Generation, transmission and distribution of electricity - Substations
Not for sale
27 pages
Identical to IEC 60050-605:1983

ZWS IEC 60071.2:2014
Insulation co-ordination
Part 1:2017 Definitions, principles and rules
Not for sale
35 pages
Identical to IEC 60071.1:2006

Applies to three-phase a.c. systems having a highest voltage for: equipment above 1 kV. Specifies the procedure for the selection of the rated withstand voltages for the phase-to0earth, phase to phase and longitudinal insulation of the equipment and the installations of these systems.

Part 2: Application guide
Not for Sale
251 pages
Identical to IEC 60071-2: 1996

Deals with the selection of insulation levels of equipment or installations of three phase electrical systems. Gives guidance for the determination of the rated withstand voltages for ranges I and II of IEC 71-1 and to justify the association of these rated values with the standardized highest voltages for equipment.

ZWS IEC 60076.2:2014
Power Transformers
Part 2: Temperature rise for liquid – immersed transformers
Not for Sale
47 pages
Identical to IEC 60076-2: 2011

Identifies power transformers according to their cooling methods, defines temperature rise limits and givesthe methods for temperature rise tests.

ZWS IEC 60076.3:2017
Power Transformers
Part 3: Insulation levels, dielectric tests and external clearances in air
Not for Sale
56 pages
Identical to IEC 60076-3: 2013

Gives details of the applicable dielectric tests and minimum dielectric test levels. Recommended minimum external clearances in air between live parts and earth are given for use when these clearances are not specified by the purchaser.

ZWS IEC 60076.8:2014
Power Transformers
Part 8: Application guide
Not for Sale
157 pages
Identical to IEC 60076-8: 1997

Provides information to users about certain fundamental service characteristics of different transformer connections and magnetic circuit designs with particular reference to zero-sequence phenomena.

ZWS IEC 60076.10:2014
Power Transformers
Part 10: Determination of noise levels
Not for Sale
69 pages
Identical to IEC 60076-10: 2001

Defines sound pressure and sound intensity measurement methods by which sound power levels of transformers, reactors and their associated cooling auxiliaries may be determined.

ZWS IEC 60076-10-1:2017
Determination of sound levels – Application guide
Not for sale
44 pages
Identical to IEC 60076-10-1:2016

Practical guidance on marking measurements is given, and factors influencing the accuracy of the methods are discussed. Indicates why values measured in the factory may differ from those measured in service.

ZWS IEC 60076.14:2014
Power Transformers
Part 14: Liquid-immersed power transformers using high-temperature insulation materials.
Not for Sale
57 pages
Identical to IEC 60076-14: 2013

Applies to liquid-immersed power transformers employing either high-temperature insulation or combinations of high-temperature and conventional insulation, operating at temperatures above conventional limits.

ZWS IEC 60193:2017
Hydraulic turbines, storage pumps and pump-turbines – Model acceptance tests.
Not for sale
569 pages
Identical to IEC 60193:1999

Applies to laboratory models of any type of impulse or reaction hydraulic turbine, storage pump or pump-turbine. Models of phototype machines either with unit power greater than 5 MW or with reference diameter greater than 3m.

ZWS IEC 60282.1:2017
High-voltage fuses
Part 1: Current-limiting fuses
Not for sale
83 pages
Identical to IEC 60282.1:2009

Applies to all types of high-voltage current-limiting fuses designed for use outdoors or indoors on alternating current systems of 50 Hz ang 60Hz and of rated voltages exceeding 1000 V.

ZWS IEC 60335.1:2007
Household and similar electrical appliance safety
Part 1: General requirements
Price Code: Gr. 12
147 pages
Identical to IEC 60335-1: 1991
Amended by MD621:2000: MD661:2008
Replaces ZWS 129: 1995

Deals with the safety of electrical appliance for household and similar purposes, their rated voltage being not more than 250 V for single phase appliances and 480 V for other appliances.

Part 2.2:2013 Particular requirements for vacuum cleaners and water suction cleaning appliances
Not for sale
58 pages
Identical to IEC 60335.2.2:2009

Deals with the safety of electric vacuum cleaners and water suction cleaning appliances for household and similar purposes, including vacuum cleaners for animal grooming their rated voltage being not more than 250V. It also applies to centrally sited vacuum cleaners and automatic battery powered cleaners.

Part 2.3: Particular requirements for electric irons
Not for sale
19 pages
Identical to IEC 60335.2.3:2013

Deals with the safety of electric dry irons and steam irons, including those with a separate water reservoir or boiler having a acapacity not exceeding 5*l,* for household and similar purposes their rated voltage being not more than 250V.

Part 2.5: Particular requirements for dishwashers
Not for sale
21 pages
Identical to IEC 60335.2.5:2012

Deals with the safety of electrical dishwashers for household and similar purposes that are indended for washing and rinsing dishes, cutlery and other utensils their rated voltage being not more than 250V for single-phase appliances and 480Vfor other appliances.

Part 2.6: Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances
Not for sale
78 pages
Identical to IEC 60335.2.6:2008
Deals with the safety of stationary electric cooking ranges, hobs, ovens and similar appliances for household use, their rated voltage being not more than 250V for single-phase appliances connected between one phse and neutral and 480V for other app;iances.

Part 2.7: Particular requirements for washing machines
Not for sale
34 pages
Identical to IEC 60335.2.7:2012

Deals with the safety of electric washing machines for household and similar use that are intended for washing clothes and textiles their rated voltage being not more than 250V for single-phase appliances and 480V for other appliances.

Part 2.9: Particular requirements for grills, toasters and similar portable cooking appliances
Not for sale
41 pages
Identical to IEC 60335.2.9:2012

Deals with the safety of electric portable appliances for household and similar purposes that have a cooking function such as baking, roasting and grilling their rated voltage being not more than 250V.

Part 2.12: Particular requirements for warming plates and similar appliances
Not for sale
13 pages
Identical to IEC 60335.2.12:2008

Deals with the safety of electric warming plates, warming trays and similar appliances intended to keep food or vessels warm, for household and similar purposes their rated voltage being not more than 250V.

Part 2.14: Particular requirements for kitchen machines
Not for sale
70 pages
Identical to IEC 60335.2.14:2012

Deals with the safety of electric kitchen machines for household and similar purposes, their rated voltage being not more than 250V

Part 2.25: Particular requirements for microwave ovens, including combination microwave ovens
Not for sale
31 pages
Identical to IEC 60335.2.25:2010

Deals with the safety of microwave ovens for household and similar use, their rated voltage being not more than 250V

Part 2.30:2013 Particular requirements for room heaters
Not for sale
30 pages
Identical to IEC 60335.2.30:2009

Deals with the safety of electric room heaters for household and similar purposes their rated voltage being not more than 250V for single-phase appliances and 480V for other appliances.

ZWS IEC 60335: Part 2-40:2022
Household and similar electrical appliances – Safety:
Part 2-40: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers
Not for sale
322 pages
Identical to IEC 60335: Part 2-40:2022

IEC 60335-2-40:2022 deals with the safety of electric heat pumps, sanitary hot water heat pumps and air conditioners, incorporating motor-compressors as well as hydronic fan coils units, dehumidifiers (with or without motor-compressors), thermoelectric heat pumps and partial units. Their maximum rated voltage being not more than 300 V for single phase appliances and 600 V for multi-phase appliances. Appliances not intended for normal household use but which nevertheless can be a source of danger to the public, such as appliances intended to be used by laymen in shops, in light industry and on farms, are within the scope of this standard. The appliances referenced above can consist of one or more factory-made assemblies. If provided in more than one assembly, the separate assemblies are used together, and the requirements are based on the use of matched assemblies. This document does not take into account refrigerants other than group A1, A2L, A2 and A3 as defined by ISO 817. Flammable refrigerants are limited to those of a molar mass of more than or equal to 42 kg/kmol based on WCF (worst case formulation) as specified in ISO 817. As far as practical, this document deals with common hazards presented by appliances that are encountered in normal use and assumes that installation, servicing, decommissioning, and disposal are safely handled by competent persons and accidental release of refrigerants is avoided. However, it does not prescribe the criteria to ensure competence of persons during installation, servicing and disposal. Safety requirements during disposal are not specified in this standard. Supplementary heaters, or a provision for their separate installation, are within the scope of this standard, but only heaters which are designed as a part of the appliance package, the controls being incorporated in the appliance. Attention is drawn to the fact that
- for appliances intended to be used in vehicles or on-board ships or aircraft, additional requirements can be necessary;
- in many countries, additional requirements are specified, for example, by the national health authorities responsible for the protection of labour and the national authorities responsible for storage, transportation, building constructions and installations.
This document does not apply to
- humidifiers intended for use with heating and cooling equipment (IEC 60335-2-88);
- appliances designed exclusively for industrial processing;
- appliances intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas).
This seventh edition cancels and replaces the sixth edition published in 2018. This edition constitutes a technical revision.
This edition includes the following significant technical changes with respect to the previous edition:
- Clause 1: added thermoelectric heat pumps to the scope and increased maximum rated voltage to 300 V for single phase appliances;
- Clause 7: revised requirements for marking on the appliance and packaging, including a symbol for minimum floor area and modifying the symbol for flammable refrigerants to include the safety group per ISO 817;
- Clause 11 and Clause 19: restructured for alignment with Part 1 and added requirements for supplementary air heaters;
- Clause 13 and Clause 16: revised requirement for leakage current for stationary class I motor-operated appliances;
- Clause 21: added requirements for particle foam material and revised requirements for transport testing;

- Clause 22: removed limit on the sum of refrigerant charges for appliances with multiple refrigerating systems, and revised requirements for avoiding ignition sources, leak detection systems, safety shut-off valves, and particle foam material;
- Clause 23: added requirements to avoid contact between wires and refrigerant piping;
- Clause 24
The content of the corrigendum 1 (2024-10) has been included in this copy.

Part 2.41: Particular requirements for pumps
Not for sale
18 pages
Identical to IEC 60335.2.41:2012

Deals with the safety of electricity pumps for liquids having a temperature not exceeding 90^0C intended for household and similar purposes their rated voltage being not more than 250V for single-phase appliances and 480Vfor other appliances.

Part 2-76:2007 Particular requirements for electrical fence energizers
Price Code: Gr. 9
91 pages
Identical to IEC 60335-2-76: 2006
Replaces ZWS 859

Deals with the safety of electrical fence energizers the rated voltage of which is not more than 250 V and by means of which fence wires in agricultural, domestic/feral animal control fences and security fences may be electrified or monitored.

Part 2.80:2013 Particular requirements for fans
Not for sale
15 pages
Identical to IEC 60335.2.80: 2008

Deals with the safety of electric fans for household and similar purposes their rated voltage being not more than 250V for single-phase appliances and 480V for other appliances.

ZWS IEC 60364:Part 4-42:2014
Low voltage electrical installations
Part 4-42 Protection for safety – protection against thermal effects
Not for sale
4 pages
Identical to IEC 60364-4-42:2014

The particular requirements of this part of IEC 60364 apply to the electrical installations of PV power supply systems including systems with AC modules.

ZWS IEC 60364:Part 4-44:2014/AMD 1:2015
Low voltage electrical installations
Part 4-44: Protection for safety - protection against voltage disturbances and electromagnetic disturbances
Not for sale
236 pages
Identical to IEC 60364-4-44:2014

IEC 60364-4-44:2007+A1:2015 are intended to provide requirements for the safety of electrical installations in the event of voltage disturbances and electromagnetic disturbances generated for different specified reasons. This consolidated version consists of the second edition (2007) and its amendment 1 (2015). Therefore, no need to order amendment in addition to this publication.

ZWS IEC 60364:Part 5-53:2019
Low voltage electrical installations
Part 5-53:2019: Selection and erection of electrical equipment-Devices for protection for safety, isolation, switching, control and monitoring
Not for sale
369 pages
Identical to IEC 60364-5-53:2019

IEC 60364-5-53:2019+A1:2020 Deals with general requirements for isolation, switching and control and with the requirements for selection and erection of the devices provided to fulfil such functions. This fourth edition cancels and replaces the third edition published in 2001, Amendment 1:2002 and Amendment 2:2015. This edition constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:
a) revision of all clauses except 531 and 534;
b) introduction of a new Clause 537 Monitoring;
c) Clause 530 contains all normative references and all terms and definitions. This consolidated version consists of the fourth edition (2019) and its amendment 1 (2020). Therefore, no need to order amendment in addition to this publication.

ZWS IEC 60364-7-710:2021
Low voltage electrical installations or location:
Part 7- 710: Requirement for special installations or location-medical location
Not for sale
83 pages
Identical to IEC 60364-7-710:2021

IEC 60364-7-710:2021 applies to electrical installations in medical locations so as to provide safety of patients and medical staff. These requirements refer to:
– hospitals and clinics or equivalent institutions (including equivalent transportable and mobile locations);
which, subject to assessment (710.30), can also include:
– sanatoriums and health clinics;
– dedicated locations in homes for senior citizens and aged care homes, where patients receive medical care;
– medical centres, outpatients' clinics and departments, casualty wards;
– other outpatients' institutions (industrial, sports and others);
– medical and dental practices;
– dedicated medical rooms in the workplace;
– other locations where medical electrical equipment is used;
– veterinary clinics;
– rooms in existing installations where a change of utilization for medical applications occur.
This list is not exhaustive.
The requirements of this document do not apply to ME equipment or ME systems.

ZWS IEC 60364-7-711:2018
Low voltage electrical installations or location
Part 7- 711: requirements for special installations or location-exhibitions, shows and stands
Not for sale
44 pages
Identical to IEC 60364-7-711:2018

IEC 60364-7-711:2018 RLV contains both the official IEC International Standard and its Redline version. The Redline version is available in English only and provides you with a quick and easy way to compare all the changes between the official IEC Standard and its previous edition. IEC 60364-7-711:2018 gives requirements applying to the temporary electrical installations in exhibitions, shows and stands (including mobile and portable displays and equipment) to protect users. This second edition cancels and

replaces the first edition published in 2007. This edition constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:
a) in 711.3.1 and 711.3.2 addition of "outdoors" to the list of suitable locations;
b) alignment with IEC 60364-4-41.

ZWS IEC 60364-7-712:2002
Electrical installation of buildings
Part 7-712 Requirements for secial installations of locations – Solar photovoltaic (PW) power supply systems
Not for sale
23 pages
Identical to IEC 60364-7-712:2002

The particular requirements of this part of IEC 60364 apply to the electrical installations of PV power supply systems including systems with AC modules.

ZWS IEC TS 60364: Part 8-3:2020
Low –voltage installations
Part 8-3: Functional aspects – operations of prosumer's electrical installations
Not for sale
21 pages
Identical to IEC 60364-8.3:2020

IEC TS 60364-8-3:2020 (E) specifies requirements and recommendations for the safe and proper functioning of prosumers' electrical installations. It is intended for use by contractors, users, facility managers and similar of electrical low-voltage installations. This document also provides requirements and recommendations on technical parameters and their limiting values influencing:
a) safety:
– protection;
– alarm;
b) proper functioning:
– stability (voltage, frequency, etc);
– reliability (power quality, interoperability of communication, etc);
– energy management (power, power factor, current, stored energy, etc);
– ability to ensure correct operation of equipment.
This document also provides requirements and recommendations on data exchange models, and test procedures for the prosumer's electrical installations that could include the following applications:
– local generating sources (e.g. photovoltaic systems, rotating generators, wind turbines);
– energy storage units (e.g. stationary secondary batteries);
– electric vehicle charging and/or discharging;
– prosumer's energy measurement unit (PEMU);
– control and monitoring system;
– loads which can be controlled.
This part of IEC 60364 is intended to be applied in conjunction with the other parts of IEC 60364.

ZWS IEC 60479: Part 4:2020
Effects of current on human beings and livestock: Part 4: effects of lightning strokes
Not for sale
33 pages
Identical to IEC 60479-4:2020

IEC TR 60479-4:2020 (E) summarizes the basic parameters for lightning and its variability insofar as they apply to human beings and livestock. The possible direct and indirect interactions of strikes with bodies of living beings are indicated. The resulting effects caused by lightning currents for the organism are described. This document shows the differences of effects on human beings and livestock due to lightning strokes versus those effects of electric shocks derived from electrical systems. This third edition cancels and replaces the second edition published in 2011. This edition constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:
a) lightning occurence and climatory effects around the world are depicted;
b) direct strike description is extended;
c) step voltage effects are expanded;
d) upward streamer explanation is enhanced;
e) other direct or indirect related effects to lightning injuries to the human body are specified;
f) various safety procedures and related possibilities with respect to the personsal danger of lightning are presented.

ZWS IEC 60545:2017
Guide for commissioning, operation and maintenance of hydraulic turbines
Not for sale
39 pages
Identical to IEC 60545:1976

To establish, in general way, suitable procedures for commissioning hydraulic turbines and associated equipment, and to indicate how such turbines and equipment should be operated and maintained.

ZWS IEC 60652:2014
Loading tests on overhead line structures
Not for sale
23 pages
Identical to IEC 60652:2002

It codifies the methods of testing supports for overhead lines for voltage above 45kV. It can serve as reference to the testing of lower voltage supports.

ZWS IEC 60826:2017
Loading tests on overhead line structures
Not for sale
23 pages
Identical to IEC 60826:2003

Specifies the loading and strength requirements of overhead lines derived from reliability based design principles. These requirements apply to lines 45 kV and above, but can be applied to lines with a lower nominal voltage.

ZWS IEC 60903:2017
Loading tests on overhead line structures
Not for sale
58 pages
Identical to IEC 60903:2014

It is applicable to electrical insul;ating gloves and mitts that provide protection of the worker against electric shock.

ZWS IEC 60904-9:2016
Photovoltaic devices – Solar simulator performance requirements
Not for sale
15 pages
Identical to IEC 60904-9:7

Define classifications of solar simulators for use in indoor measurements of terrestrial photovoltaic devices, solar aimulators are classified as A, B, or C for each of the three categories based on criteria of spectral distribution match, irradiance non-uniformity on the test plane and temporal instability.

ZWS IEC 60921:2016
Ballasts for tubular fluorescent lamps – Performance requirements
Not for sale
63 pages
Identical to IEC 60921:2004

Specifies performance requirements for ballasts, excluding resistance types, for use on a.c. supplies up to 1 000 V at 50 Hz or 60 Hz, associated with tubular fluorescent lamps with pre-heated cathodes operated with or without a starter or starting device and having rated wattages, dimensions and characteristics as specified in IEC 60081 and 60901.

ZWS IEC 61000.4.30:2014
Electromagnetic compatibility (EMC)
Not for sale
62 pages
Identical to IEC 61000.4.30: 2008

Defines the methods for measurement and interpretation of results for power quality parameters in 50/60 Hz a.c. power supply systems.

ZWS IEC 61089:2013
Amendment 1
Round wire concentric lay overhead electrical stranded conductors.
Not for sale
16 pages
Identical to 61089:1997

Specifies the electrical and mechanical characteristics of round wire, concentric lay, overhead, electrical and stranded conductors made of combinations of any of the mentioned metal wires.

ZWS IEC TS 61200: Part 102:2020
Electrical installation guide
Part 102: Application guidelines for low-voltage direct current electrical installations not intended to be connected to a public distribution network
Not for sale
16 pages
Identical to IEC TS 61200-102:2020

IEC TS 61200-102:2020(E) applies to low-voltage DC electrical installations entirely supplied by local power sources and having a nominal voltage lower or equal to the low-voltage limit. These installations can be connected to collective or shared private electrical installations. This document also applies to DC installations according to use cases TIER 2 and TIER 3 of the World Bank defined in ESMAP 008/15 report: Beyond Connections Energy Access Redefined

ZWS IEC 61215:2016
Crystalline silicon terrestrial photovoltaic (PV) modules – Design qualification and type approval
Not for sale
47 pages
Identical to IEC 61215:2005

It lays down IEC requirements for the design qualification and type approval of terrestrial photovoltaic modules suitable for long term operation in general open-air climates, as defined in IEC 60721-2-1.

ZWS IEC 61284:2017
Overhead lines –Requirements and tests for fittings
Not for sale
131 pages
Identical to IEC 61284:1997

Applies to fittings for overhead lines of norminal voltage above 45kV. It may also be applied to fittings for overhead lines of lower norminal voltage and to similar fittings for substations.

ZWS IEC 61362:2017
Guide to specification of hydraulic turbine governing systems
Not for sale
66 pages
Identical to IEC 61362:2012

Includes all relevant technical data necessary to describe hydraulic turbine governing systems and to define their performance. It will also serve as a basis for setting up technical guarantees.

ZWS IEC 61378.3:2017
Converter transformers
Part 3: Application guide
Not for sale
91 pages
Identical to IEC 61378.3:2015

Provides information to users about specific topics related to industrial and HVDC converter transformers with design, construction, testing and operating conditions differing from conventional transformers used in power systems.

ZWS IEC 61439: Part 1:2020
Low voltage switchgear and Controlgear assemblies
Part 1: General rules
Not for sale
504 pages
Identical to IEC IEC 61439-1:2020

IEC 61439-1:2020 RLV contains both the official IEC International Standard and its Redline version. The Redline version is available in English only and provides you with a quick and easy way to compare all the changes between the official IEC Standard and its previous edition. IEC 61439-1:2020 lays down the general definitions and service conditions, construction requirements, technical characteristics and verification requirements for low-voltage switchgear and controlgear assemblies. NOTE Throughout this document, the term assembly(s) (see 3.1.1) is used for a low-voltage switchgear and controlgear assembly(s). For the purpose of determining assembly conformity, the requirements of the relevant part of the IEC 61439 series, Part 2 onwards, apply together with the cited requirements of this document. For assemblies not covered by Part 3 onward, Part 2 applies. This third edition cancels and replaces the second edition published in 2011. It constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:
a) clarification that power electric converter systems, switch mode power supplies, uninterruptable power supplies and adjustable speed power drive systems are tested to their particular products standard, but when they are incorporated in assemblies the incorporation is in accordance with the IEC 61439 series of standards;
b) introduction of a group rated current for circuits within a loaded assembly and the refocusing of temperature-rise verification on this new characteristic;
c) addition of requirements in respect of DC;
d) introduction of the concept of class I and class II assemblies regarding protection against electric shock.

ZWS IEC 61646:2016
Thin film terrestrial photovoltaic (PV) modules – Design qualification and type approval
Not for sale
40 pages
Identical to IEC 61646:2008

It lays down IEC requirements for the design qualification and type approval of terrestrial thin-film photovoltaic modules suitable for long term operation in general open-air climates, as defined in IEC 60721-2-1.

ZWS IEC 61683:2016
Photovoltaic systems – power conditioners – Procedures for measuring efficiency
Not for sale
20 pages
Identical to IEC 61683:1999
Describes guidelines for measuring the efficiency of power conditioners used in stand alone and utility-interactive photovoltaic systems, where the output of the power conditioner is a stable a.c. voltage of constant frequency or a stable d.c. voltage. The efficiency is calculated from direct measurement of input and output power in the factory.

ZWS IEC 61773:2014
Overhead lines –Testing of foundations for structures
Not for sale
91 pages
Identical to IEC 61773: 2014

Provide prodedures which apply to the investigation of the load-carrying capacity and/or the load response (deflection or rotation) of the total foundation as an interaction between the foundation and the surrounding soil and or rock.

ZWS IEC 61850: Part 1:2013
Communication networks and systems for power utility automation
Part 1: Introduction and overview
Not for sale
pages
Identical to IEC 61850-1:2013

Part 2:2019 Glossary
Not for sale
pages
Identical to IEC 61850-2:2019

Part 3:2013 General requirement
Not for sale
pages
Identical to IEC 61850-3:2013

Part 4:2011 System and Project Management
Not for sale
pages
Identical to IEC 61850-4:2011

Part 5:2013 Communication requirements for functions and device models
Not for sale
pages
Identical to IEC 61850-5:2011

Part 6:2018 Configuration description language for communication in electrical substations related to IEDs
Not for sale
pages
Identical to IEC 61850-6:2018

Part 80-1:2016 Guideline to exchanging information from a CDC-based data model using IEC 60870-5-101 or IEC 60870-5-14
Not for sale
pages
Identical to IEC 61850-80-1:2016

Part 80-3:2016: Mapping to web protocols – Requirements and technical choices
Not for sale
pages
Identical to IEC 61850-80-3:2016

Part 80-4:2016 Translation from the COSEM object model (IEC 62056) to the IEC 61850 data model
Not for sale
pages
Identical to IEC 61850-80-4:2016

Part 90-2:2016 Using IEC 61850 for communication between substations and control centres
Not for sale
pages
Identical to IEC 61850-90-2:2016

Part 90-3:2016 Using IEC 61850 for condition monitoring diagnosis and analysis
Not for sale
pages
Identical to IEC 61850-90-3:2016

Part 90-4:2020 Network engineering guidelines
Not for sale
pages
Identical to IEC 61850-90-4:2020

Part 90-5:2012: Use of IEC 61850 to transmit synchrophasor information according to IEEE C37.118
Not for sale
pages
Identical to IEC 61850-90-5:2012

Part 90-6:2018: Use of IEC 61850 for distribution automation system
Not for sale
pages
Identical to IEC 61850-90-6:2018

Part 90-7:2023 Object models for power convertors in distributed energy resources (der) systems
Not for sale
pages
Identical to IEC 61850-90-7:2023

Part 90-8:2016: Object model for E-mobility
Not for sale
pages
Identical to IEC 61850-90-8:2016

Part 90-10:2017: Models for scheduling
Not for sale
pages
Identical to IEC 61850-90-10:2017

Part 90-11:2020: Methodologies for modelling of logics for IEC 61850 based applications
Not for sale
pages
Identical to IEC 61850-90-11:2020

Part 90-12:2020: Wide area network engineering guidelines
Not for sale
pages
Identical to IEC 61850-90-12:2020

Part 90-13:2021: Deterministic networking technologies
Not for sale
pages
Identical to IEC 61850-90-13:2021

Part 90-17:2017: Using IEC 61850 to transmit power quality data
Not for sale
pages
Identical to IEC 61850-90-17:2017

ZWS IEC 61851: Part 1:2017
Electric vehicle conductive charging system
PART 1: General requirements
Not for sale
287 pages
Identical to IEC 61851-1:2017

This part of IEC 61851 applies to EV supply equipment for charging electric road vehicles, with a rated supply voltage up to 1000 V AC or up to 1500 V DC and a rated output voltage up to 1000 V AC or up to 1500 V DC.

ZWS IEC 61851: Part 21-1:2017
Electric vehicle conductive charging system
PART 21-1: Electric vehicle on-board charger EMC requirements for conductive connection to AC/DC supply
Not for sale
47 pages
Identical to IEC 61851-21-1:2017

This part of IEC 61851, together with IEC 61851-1:2010, gives requirements for conductive connection of an electric vehicle (EV) to an AC or DC supply. It applies only to on-board charging units either tested on the complete vehicle or tested on the charging system component level (ESA-electronic sub assembly)

ZWS IEC 61851: Part 21-2:2018
Electric vehicle conductive charging system
Part 21-2: Electric vehicle requirements for conductive connection to an AC/DC supply – EMC requirements for off-board electric vehicle charging systems
Not for sale
95 pages
Identical to IEC 61851-21-2:2018

This part of IEC 61851 defines the EMC requirements for an off-board componentsor equipment of such systems used to supply or charge electric vehicles with electric power by conductive power transfer (CPT) with a rated input voltage, according to IEC 60038:2009, upto 1000 V AC or 1500 V DC and an output voltage up to 1000 V AC or 1500 V DC.

ZWS IEC 61851: Part 23:2014
Electric vehicle conductive charging system
Part 23: DC electric vehicle charging station
Not for sale
159 pages
Identical to IEC 61851-23:2014

This part of IEC 61851-24:2014, together with IEC 61851-23, applies to digital communication between a d.c. EV charging station and an electric road vehicle (EV) for control of d.c. charging, with an a.c. or d.c. input voltage up to 1 000 V a.c. and up to 1 500 V d.c. for the conductive charging procedure. The EV charging mode is mode 4, according to IEC 61851-23. Annexes A, B, and C give descriptions of digital communications for control of d.c. charging specific to d.c. EV charging systems A, B and C as defined in Part 23.

ZWS IEC 61851: Part 24:2014
Electric vehicle conductive charging system
Part 24: Digital communication between a d.c EV charging station and an electric vehicle for control of d.c charging
Not for sale
63 pages
Identical to IEC 61851-24:2014

This part of IEC 61851-24:2014, together with IEC 61851-23, applies to digital communication between a d.c. EV charging station and an electric road vehicle (EV) for control of d.c. charging, with an a.c. or d.c. input voltage up to 1 000 V a.c. and up to 1 500 V d.c. for the conductive charging procedure. The EV charging mode is mode 4, according to IEC 61851-23. Annexes A, B, and C give descriptions of digital communications for control of d.c. charging specific to d.c. EV charging systems A, B and C as defined in Part 23.

ZWS IEC 61854:2014
Overhead lines – Requirements and test spacers
Not for sale
81 pages
Identical to IEC 61854: 1998

Applies to spacers for conductor bundles of overhead lines. It covers rigid spacers, flexible spacers and spacer dampers.

ZWS IEC 61936.1:2017
Power installations exceeding 1kV a.c.
Part 1: Common rules
Not for sale
210 pages
Identical to IEC 61936.1:2010

Provides common rules for the design and the erection of electrical power installations in systems with norminal voltage above 1 kV a.c. and norminal frequency up to and including 60Hz, so as to provide safety and proper functioning for the use intended.

ZWS IEC 61952:2014
Insulators for overhead lines – Composite line post insulators for A.C. systems with a nominal voltage greater than 1 000 v – Definitions, test methods and acceptance criteria
Not for sale
27 pages
Identical to IEC 61952:2008

Applies to composite line post insulators consisting of a load-bearing cylindrical insulating solid core consisting of fibre – usually glass – in a resin based matrix, a housing (outside the insulating core) made of polymeric material and end fittings permanently attached to the insulating core.

ZWS IEC 61980: Part 1: 2020
Electric vehicle wireless power transfer (WPT) systems
Part 1: General requirements
Not for sale
42 pages
Identical to IEC 61980-1:2020

This part of IEC 61980 applies to the supply device for charging electric road vehicles using wireless methods at standard supply voltages per IEC 60038 up to 1 000 V AC and up to 1 500 V DC. Electric road vehicles (EV) covers road vehicles, including plug-in hybrid road vehicles (PHEV) that derive all or part of their energy from on-board rechargeable energy storage systems (RESS). This document also applies to wireless power transfer (WPT)

equipment supplied from on-site storage systems (e.g. buffer batteries).

ZWS IEC TS 61980: Part 2: 2019
Electric vehicle wireless power transfer (WPT) systems
Part 2: Specific requirements for communication between electric road vehicle (EV) and infrastructure
Not for sale
84 pages
Identical to IEC 61980-2:2019

This Part of IEC 61980, which is a Technical Specification, applies to communication between electric road vehicle (EV) and wireless power transfer (WPT) systems when connected to the supply network, at standard supply voltages per IEC 60038 up to 1000 V AC and up to 1500 V DC. This document also applies to wireless power transfer equipment supplied from on-site storage systems (e.g. buffer batteries) at standard supply voltages per IEC 60038 up to 1000 V AC and up to 1500 V DC.

ZWS IEC 62109-1:2016
Safety of power converters for use in photovoltaic power systems – General requirements
Not for sale
150 pages
Identical to IEC 62109-1:2010

Provides general requirements applicable to all types of PV PCE. There are additional parts of this standard that provide specific requirements for the different types of power converters.

ZWS IEC 62116:2016
Utility-interconnected photovoltaic inverters – Test procedures of islanding prevention measures
Not for sale
25 pages
Identical to IEC 62116:2014

Describes a guideline for testing the performance of automatic islanding prevention measures installed in or with single or multi-phase utility interactive PV inverters connected to the utility grid.

ZWS IEC 62124:2016
Photovoltaic (PV) stand-alone systems – Design verification
Not for sale
77 pages
Identical to IEC 62124:2004

Covers systems containing one or more PV modules, a support structure , storage batteries, a charge controller and typical DC loads such as lights, radio, television and refrigerators AC loads with dedicated inverters are considered as DC loads.

ZWS IEC 62196: Part 1:2014
Plugs, socket-outlets, vehicle connectors and vehicle inlets – conductive charging of electric vehicles
Part 1: General requirements
Not for sale
86 pages
Identical to IEC 62196-1:2014

This part of IEC 62196 is applicable to plugs, socket-outlets, vehicle connectors, vehicle inlets, herein referred to as "accessories", and to cable assemblies for electric vehicles (EV) intended for use in conductive charging systems which incorporate control means, with a rated operating voltage not exceeding: – 690 V AC 50 Hz to 60 Hz, at a rated current not exceeding 250 A; – 1 500 V DC at a rated current not exceeding 800 A. These accessories and cable assemblies are intended to be installed by instructed persons (IEV 195-04-02) or skilled persons (IEV 195-04-01) only. These accessories and cable assemblies are intended to be used for circuits specified in IEC 61851 (all parts), which operate at different voltages and frequencies, and which can include extra-low voltage and communication signals. These accessories and cable assemblies are intended to be used at an ambient temperature between −30 °C and +40 °C.

ZWS IEC 62196: Part 2:2016
Plugs, socket-outlets, vehicle connectors and vehicle inlets – conductive charging of electric vehicles
Part 1: Dimensional compatibility and interchangeability requirements for a.c. pin and contact-tube accessories
Not for sale
122 pages
Identical to IEC 62196-2:2016

This part of IEC 62196 applies to plugs, socket-outlets, vehicle connectors and vehicle inlets with pins and contact-tubes of standardized configurations, herein referred to as accessories. They have a nominal rated operating voltage not exceeding 480 V a.c., 50 Hz to 60 Hz, and a rated current not exceeding 63 A three-phase or 70 A single phase, for use in conductive charging of electric vehicles. This part of IEC 62196 covers the basic interface accessories for vehicle supply as specified in IEC 62196-1, and intended for use in conductive charging systems for circuits specified in IEC 61851-1:2010.

ZWS IEC 62257.9-5:2013
Recommendations for small renewable energy and hybrid systems for rural electrification.
Part 9-5 Integrated system – selection of stand-alone lighting kits for rural electrification
Not for sale

27 pages
Identical to IEC 62257.9-5:2013

Applies to stand-alone rechargeable electric lighting appliances or kits that can be installed by a typical user without employing a technician.

ZWS IEC 62257.9-8:2020
Recommendations for small renewable energy and hybrid systems for rural electrification.
Part 9-8: Integrated system – requirements for stand alone renewable energy products with powe rating less than or equal to 350W
Not for sale
71 pages
Identical to IEC 62257.9-8:2020

This part of IEC 62257 provides baseline requirements for quality, durability and truth in advertising protect consumers of off-grid renewable energy products. Evaluation of these requirements is based on tests described in IEC TS 62257-9.5. This document can be usd alone or in conjuction with other international standards that address the safety and durability of components of off-grid renewable energy products.

ZWS IEC 62430:2019
Environmentally conscious design – principles, requirements and guidance
Not for sale
22 pages
Identical to IEC 62430:2019

This document describes principles, specifies requirements and provides guidance for organizations intending to integrate environmental aspects into the design and development in order to minimize the adverse environmental impacts of their products. This

document applies to processes on how ECD (environmentally conscious design) are integrated into the design and development. This document applies to any organization, regardless of its size, type or sector.

ZWS IEC 62504:2014
General lighting – LEDs and LED modules – terms and definitions
Not for sale
15 pages
Identical to IEC 62504:2011

This technical specification presents terms and definitions relevant for lighting with LED light sources. It provides both descriptive terms (Such as built-in LED module) and measurable terms (such as "luminance")

ZWS IEC 62509:2016
Battery charge controllers for photovoltaic systems – Performance and functioning
Not for sale
27 pages
Identical to IEC 62509:2010

Establishes minimum requirements for the functioning and performance of battery charge controllers used with lead acid batteries in terrestrial photovoltaic (PV) systems. To ensure BCC reliability and to maximize the life of battery. The standard addresses the following battery charge control features;- PV generator charging of a battery; load control; protection functions; interface functions.

ZWS IEC 62552: Part 1:2015/Amd 1:2020
Household refrigerating appliances – characteristics and test methods –
Part 1: General requirements
Not for sale
79 pages
Identical to IEC 62552: Part 1:2015/Amd 1:2020

IEC 62552-1:2015 specifies the essential characteristics of household refrigerating appliances, cooled by internal natural convection or forced air circulation, and establishes test methods for checking the characteristics. For the purposes of declaration, the tests defined in this part of IEC 62552 are considered to be type tests to assess the fundamental design and operation of a refrigerating appliance. This part of IEC 62552 does not define requirements for production sampling or conformity assessment or certification. This part of IEC 62552 does not define a regime for verification testing as this varies by region and country. When verification of the performance of a refrigerating appliance of a given type in relation to this standard is necessary, it is preferable, wherever practicable, that all the tests specified be applied to a single unit. The tests can also be made individually for the study of a particular characteristic. IEC 62552-1, -2 and -3 cancel and replace the first edition of IEC 62552 published in 2007. IEC 62552-1, -2 and -3 constitute a technical revision and includes the following significant technical changes with respect to IEC 62552:2007:
a) All parts of the standard have been largely rewritten and updated to cope with new testing requirements, new product configurations, the advent of electronic product controls and computer based test-room data collection and processing equipment.
b) In Part 1 (this part) there are some changes to test room equipment specifications and the setup for testing to provide additional flexibility especially when testing multiple appliances in a single test room.

ZWS IEC 62552: Part 2:2015/Amd 1:2020
Household refrigerating appliances – Characteristics and test methods –
Part 2: Performance requirements
Not for sale
30 pages
Identical to IEC 62552: Part 2:2015/Amd 1:2020

IEC 62552-2:2015 specifies the essential characteristics of household refrigerating appliances cooled by internal natural convection or forced air circulation, and specifies test methods for checking the characteristics. This part of IEC 62552 describes the methods for the determination of performance requirements. Although there is some commonality in the set-ups for different tests (and so it may be an advantage to apply them all to one sample), these are separate tests to evaluate specific characteristics of the sample being tested. This part of IEC 62552 does not specify a procedure to generalise the results from sample test results to a prediction of the characteristics of the whole population from which that sample was selected. IEC 62552-1, IEC 62552-2 and IEC 62552-3 cancel and replace the first edition of IEC 62552 published in 2007. IEC 62552-1, IEC 62552-2 and IEC 62552-3 together constitute a technical revision and include the following significant technical changes with respect to IEC 62552:2007:
- A cooling capacity test has been added in Part 2 (this part).
- A pull-down test has been added in Part 2 (this part).
- Performance tests have been added for wine storage appliances in Part 2 (this part)..

ZWS IEC 62552: Part 3:2015/Amd 1:2020
Household refrigerating appliances – Characteristics and test methods –
Part 3: Energy consumption and volume
Not for sale
30 pages
Identical to IEC 62552: Part 3:2015/Amd 1:2020

IEC 62552-3:2015 specifies the essential characteristics of household and similar refrigerating appliances cooled by internal natural convection or forced air circulation, and establishes test methods for checking these characteristics. This part of IEC 62552 describes the methods for the determination of energy consumption characteristics and defines how these can be assembled to estimate energy consumption under different usage and climate conditions. This part of IEC 62552 also defines the determination of volume.
- All parts of the standard have been largely rewritten and updated to cope with new testing requirements, new product configurations, the advent of electronic product controls and computer based test-room data collection and processing equipment.
- For more efficient analysis and to better characterise the key product characteristics under different operating conditions, the test data from many of the energy tests in Part 3 (this part) is now split into components (such as steady state operation and defrost and recovery). The approach to determination of energy consumption has been completely revised, with many internal checks now included to ensure that data complying with the requirements of the standard is as accurate as possible and of high quality.
- Part 3 (this part) now provides a method to quantify each of the relevant energy components and approaches on how these can be combined to estimate energy under different conditions on the expectation that different regions will select components and weightings that are most applicable when setting both their local performance and energy efficiency criteria while using a single set of global test measurements.
- For energy consumption measurements in Part 3 (this part), no thermal mass (test packages) is included in any compartment and compartment temperatures are based on the average of air temperature sensors (compared to the temperature in the warmest test package). There are also significant differences in the position of temperature sensors in unfrozen compartments.

- The energy consumption test in Part 3 (this part) now has two specified ambient temperatures (16°C and 32°C).
- A load processing energy efficiency test has been added in Part 3 (this part).
- Tests (both performance (Part 2) and energy (Part 3 (this part)) have been added for wine storage appliances.

ZWS IEC 62560:2014
Self-ballasted LED-Lamps for general lighting services by voltages >50 V – Safety specification
Not for sale
24 pages
Identical to IEC 62560:2011

Specifies the safety and interchangeability requirements, together with the test methods and conditions required to show compliance of LED-lamps with intergrated means for stable operation.

ZWS IEC 62576:2018
Electric double-layer capacitors for use in hybrid electric vehicles – test methods for electrical characteristics
Not for sale
30 pages
Identical to IEC 62576:2018

This document describes the methods for testing electrical characteristics of electric double-layer capacitor cells (hereinafter referred to as "capacitor") used for peak power assistance in hybrid electric vehicles. All the tests in this document are type tests. This document can also be applicable to the capacitor used in idling reduction systems (start and-stop systems) for the vehicles. This document can also be applicable to the capacitor modules consisting of more than one cell.

ZWS IEC 62612:2014
Self-ballasted LED-Lamps for general lighting services with supply voltages >50 V – Performance requirements
Not for sale
42 pages
Identical to IEC 62612:2013

Standard specifies the performance requirements, together with the test methods and conditions, required to show compliance of LED lamps with integral means for stable operation, intended for domestic and similar general lighting purposes.

ZWS IEC 62840: Part 1:2016
Electric vehicle battery swap system
Part 1: General and guidance
Not for sale
27 pages
Identical to IEC 62840-1:2016

This part of IEC 62840, which is a Technical Specification, gives the general overview for battery swap systems, for the purposes of swapping batteries of electric road vehicles (EVs) when the vehicle powertrain is turned off and when the battery swap system is connected to the supply network at standard supply voltages according to IEC 60038 with a rated voltage up to 1 000 V AC and up to 1 500 V DC. This document is applicable for battery swap systems for EV equipped with one or more swappable battery system (SBS).

ZWS IEC 62840: Part 2:2016
Electric vehicle battery swap system
Part 2: Safety requirements
Not for sale
26 pages
Identical to IEC 62840-2:2016

This part of IEC 62840 provides the safety requirements for a battery swap system, for the purposes of swapping swappable battery system (SBS) of electric vehicles. The battery swap system is intended to be connected to the supply network. The power supply is up to 1 000 V AC or up to 1 500 V d.c, in accordance with IEC 60038. This standard also applies to battery swap systems supplied from on-site storage systems (e.g. buffer batteries).

ZWS IEC 62840: Part 3:2021
Electric vehicle battery swap system
Part 3: Particular safety and interoperability requirements for battery swap systems operating with removable RESS/battery systems
Not for sale
39 pages
Identical to IEC 62840-3:2021

This document applies to battery swap systems for removable RESS of electric road vehicle when connected to the supply network, with a rated supply voltage up to 480 V AC or up to 400 V DC, for battery systems with a rated voltage up to 120 V DC.

ZWS IEC 63119: Part 1:2019
Information exchange for electric vehicle charging roaming service
Part 1: General
Not for sale
14 pages
Identical to IEC 63119-1:2019

This part of IEC 63119 establishes a basis for the other parts of IEC 63119, specifying the terms and definitions, general description of the system model, classification, information exchange and security mechanisms for roaming between EV charge service providers (CSPs), charging station operators (CSOs) and clearing house platforms through roaming endpoints. It provides an overview and describes the general requirements of the EV roaming service system.

ZWS IEC 82474: Part 1:2025
Material declaration
Part 1:2025 General requirements
Not for sale
52 pages
Identical to IEC 82474-1:2019

This part of IEC 82474 specifies the requirements and guidance for the content, format and exchange relating to material declarations for products. The main intended use of this document is to provide data up and down the supply chain that:
–allows organizations to assess products against material and substance requirements,
–allows organizations to assess process chemical substances used in manufacturing and other stages of the product life,
–allows organizations to use this information in their activities related to environmentally conscious design process and across all product life cycle stages,
–allows organizations to obtain information about material efficiency and circularity of their products.
This document specifies mandatory declaration requirements and also provides optional declaration requirements. This document does not suggest any specific software solution to capture material declaration data in the supply chain. However, it provides a data format used to transfer information within the supply chain. Organizations can determine the most appropriate method to capture material declaration data without compromising data utility and quality. This document is intended to allow declaration based on engineering judgement, responder (supplier) material declarations, and/or sampling and testing.

ZWS ISO ADOPTIONS

ZWS ISO IEC Guide 21:2005
Regional or national adoption of international standards and other international deliverables
Part 1: adoption of international standards
Price Code: Gr. 6
23 pages
Identical to ISO/IEC: Guide 21:1: 2005

Provides methods for determining the degree of correspondence regional or national standards and relevant international standards.

Part 2: Adoption of international deliverables other than international standards
Price Code: Gr. 4
9 pages
Identical to ISO/IEC: Guide 21.2: 2005

Provides the methods for adoption of international of international standards as regional or national deliverables.

ZWS ISO/IEC Guide 23:2005
Methods of indicating conformity with standards for third-party certification systems
Price Code: Gr. 3
4 pages
Identical to ISO/IEC: Guide 23: 1992

Lays down methods of indicatingconformity with standards and reference thereto in standards.

ZWS ISO/IEC Guide 27:2005
Guidelines for corrective action to be taken by a certification body in the event of misuse of its mark of conformity
Price Code: Gr. 3
4 pages
Identical to ISO/IEC Guide 27: 2005

Identifies a series of procedures which a national certification body should consider in deciding how to respond to reported misuse of its registered mark of conformity or a situation in which a certified product is found to be hazardous.

ZWS ISO/IEC Guide 28:2005
Conformity assessment Guidance on a third party certification systems for products
Price Code: Gr. 5
16 pages
Identical to ISO/IEC Guide 28 2004

Gives general guidelines for a specific product certification system.

ZWS ISO/IEC Guide 43:2003
Proficiency testing by inter-laboratory comparisons
Part 1: Development and operation of proficiency testing Schemes
Price Code: Gr.5
16 pages
Identical to ISO/IEC Guide 43.1

Defines principles of inter-laboratory comparisons and describes the factors which should be taken into account in the organization and conduct of proficiency testing schemes.

ZWS ISO/IEC Guide 53:2006
Conformity assessment – Guidance on the use of an organization's quality management system in product certification
Price Code: Gr. 6
21 pages
Identical to ISO IEC Guide 53: 2005

Outlines a general approach by which certification bodies can develop and apply product certification schemes utilizing requirements for an organization's quality management.

ZWS ISO/IEC Guide 60:2005
Conformity assessment – Code of good practice
Price Code: Gr. 3
5 pages
Identical to ISO/IEC Guide 65: 1996

Recommends good practices for all elements of conformity assessment, including normative documents, bodies, systems, schemes and results.

ZWS ISO/IEC Guide 64:2009
Guide for addressing environmental issues in product standards
Price Code: Gr. 7
36 pages
Identical to ISO/IEC Guide 64: 2008

Provides guidance on addressing environmental issues in product standards. It is primarily intended for product standards writers.

ZWS ISO/IEC Guide 65:2005
General requirements for bodies operating product certification systems
Price Code: Gr. 5
8 pages
Identical to ISO/IEC Guide 65: 1996

Specifies general requirements that a third party operating a product certification system shall meet if it is to be recognized as competent and reliable.

ZWS ISO/IEC Guide 67: 2005
Conformity assessment – Fundamentals of product certification
Price Code: Gr. 4
9 pages
Identical to ISO/IEC Guide 67: 2004

Give guidance on product certification systems by identifying their various elements based on current practices.

ZWS ISO/IEC Guide 68:2005
Arrangements for the recognition and acceptance of conformity assessment results
Price Code: Gr. 4
8 pages
Identical to ISO Guide 68: 2002

Provides an introduction to the development, issuance and operation of arrangements for the recognition and acceptance of results produced by bodies undertaking similar conformity assessments and related activities.

ZWS ISO/IEC GUIDE 73:2011
Risk Management – Vocabulary
Price Code: Gr.6
13 pages
Identical to ISO/IEC Guide 73:2009

Provides the definitions of generic terms related to risk management.It aims to encourage a mutual and consistent understanding of and a coherent approach to the description of activities relating to the management of risk and the use of uniform risk management terminology in processes and frameworks dealing with the management of risk.

ZWS ISO 91:2017
Petroleum and related products — Temperature and pressure volume correction factors and standard reference conditions
Price Code: Gr.6
19 pages
Identical to ISO 91:2017

This document refers to temperature volume correction factors, which allow users to convert volumes, measured at ambient conditions, to those at reference conditions for transactional purposes. This document also refers to compressibility factors required to correct hydrocarbon volumes measured under pressure to the corresponding volumes at the equilibrium pressure for the measured temperature.

ZWS ISO Guide 99:2007
International vocabulary of metrology — Basic and general concepts and associated terms (VIM)
Price Code: Gr.9
91 pages
Identical to ISO 99:2007

In this Vocabulary, a set of definitions and associated terms is given, in English and French, for a system of basic and general concepts used in metrology, together with concept diagrams to demonstrate their relations. Additional information is given in the form of examples and notes under many definitions. This Vocabulary is meant to be a common reference for scientists and engineers — including physicists, chemists, medical scientists — as well as for both teachers and practitioners involved in planning or performing measurements, irrespective of the level of measurement uncertainty and irrespective of the field of application. It is also meant to be a reference for governmental and inter-governmental bodies, trade associations, accredi-tation bodies, regulators, and professional societies. Concepts used in different approaches to describing measurement are presented together. The member organizations of the JCGM can select the concepts and definitions in accordance with their respective terminologies. Nevertheless, this Vocabulary is intended to promote global harmonization of terminology used in metrology.

ZWS ISO 186:1999
Paper and board – Sampling to determine average quality
Price Code: Gr. 3
5 pages
Identical to ISO 186: 1994

Specifies a method of obtaining a representative sample from a lot of paper of paper or board for testing to determine whether or not its average quality complies with specification including solid and corrugated fibreboard.

ZWS ISO 188:2008
Rubber, vulcanized or thermoplastic – accelerated ageing and heat resistance tests
Price Code: Gr. 6
17 pages
Identical to ISO 188:2007

Specifies accelerated ageing or heat resistance tests on vulcanized or thermoplastic rubbers.

ZWS ISO 361:1975
Basic Ionizing radiation symbol
Price Code: Gr. 2
1 pages
Identical to ISO 361:1975

Specifies the symbol to be used to signify the actual or potential presence of ionizing radiation and to identify objects, devices, materials or combinations of materials which emit ionizing radiation.

ZWS ISO 404:2013
Steel and steel products - General technical delivery requirements
Price Code: Gr. 6
14 pages
Identical to ISO 404:2013
Replaces Comesa ZWS HS ISO 404:2006

This International Standard specifies the general technical delivery requirements for all steel products covered by ISO 6929, with the exception of steel castings and powder metallurgical products. ISO 10474 describes the inspection documents to be used. Where the delivery requirements agreed upon for the order or specified in the appropriate product or material standard differ from the general technical delivery requirements defined in this International Standard, then it is the requirements agreed for ordering or specified in the appropriate product or material standard that apply.

ZWS ISO 407:2023
Small medical gas cylinders — Pin-index yoke-type valve connections
Price Code: Gr. 6
24 pages
Identical to ISO 407:2023

This document is applicable to pin-index yoke-type valve connections for medical gas cylinders, with a working pressure up to a maximum of 200 bar or test pressure up to a maximum of 300 bar, or both.
NOTE 1: This type of connection is primarily used for small cylinders (5 l or below).
NOTE 2: In this document the unit bar is used, due to its universal use in the field of technical gases. It should, however, be noted that bar is not an SI unit, and that the corresponding SI unit for pressure is Pa (1 bar = 105 Pa = 105 N/m2).
This document specifies:
—basic dimensions;
—requirements for alternative designs of the yoke-type valve connections;
—dimensions and positions for the holes and pins for the outlet connections.
It also specifies the dimensions and positions for the holes and pins for the outlet connections for gases and gas mixtures.

ZWS ISO 488:2008
Milk – Determination of fat content – Gebber butyrometers
Price Code: Gr. 6
14 pages
Identical to ISO 488:2008

Specifies the characteristicsl of seven types of butyrometer for use in the determination of the fat content of whole milk partly skimmed milk and skimmed milk.

ZWS ISO 527:1998
Plastics – Determination of tensile properties
Part 3: Test conditions for films and sheets
Price Code: Gr. 3
5 pages
Identical to ISO 527: 1998

Specifies the conditions for determining the tensile properties of plastics films or sheets less than 1 mm thick.

ZWS ISO 607:1980
Surface active agents and detergents – methods of sample division
Price Code: Gr. 5
8 pages
Identical to ISO 607:1980 (confirmed 2022).

This International Standard specifies methods for obtaining a reduced sample of surface active agent or detergent suitable for use with single or mixed products, in the form of powders, pastes
or liquids.The sample reduction process may be required for the following reasons :
a)the preparation of a final sample or a laboratory sample of mass greater than 250 g from a blended bulk sample of mass greater than 500 g;
b)the preparation of several equivalent laboratory samples and/or reference samples and/or storage samples, each of mass greater than 250 g, from a final sample;
c)the preparation of a test sample from a laboratory sample.

ZWS ISO 629:1982
Steel and cast iron – Determination of manganese content – Spectrophotometric method
Price Code: Gr. 6
7 pages
Identical to ISO 629:1982 (confirmed 2018).

Scope and field of application 4.5 Perchloric acid, Q about 1,67 g/ml. This International Standard specifies a spectrophotometric **NOTE** - It is also possible to use perchloric acid, Q about 1,54 g/ml. The method is applicable to products having manganese contents between 0,001 and 4 % (m/m).

ZWS ISO 697:1981
Surface active agents — Washing powders — Determination of apparent density — Method by measuring the mass of a given volume
Price Code: Gr. 4
4 pages
Identical to ISO 697: 1981

This International Standard specifies a method for the determination of the apparent density of washing powders by measuring the mass of a given volume.

ZWS ISO 707:2008
Milk and milk products – Guidance on sampling
Price Code: Gr. 5
36 pages

Gives guidance on methods of sampling milk and milk products.

ZWS ISO 712:1996
Cereals and cereal products – Determination of moisture content (Routine reference method)
Price Code: Gr. 4
8 pages
Identical to ISO 712: 1995

Specifies a routine reference method for the determination of moisture content of cereals and cereal products.

ZWS ISO 750:1998
Fruit and vegetable products – Determination of titratable acidity
Price Code: Gr. 3
4 pages
Identical to ISO 750:1998

Specifies two methods for the determination of the titratable acidity of fruit and vegetable products, a potentiometric reference method, a routine method using a coloured indicator.By convention the latter method does not apply to wines.

ZWS ISO 751:1998
Fruit and vegetable products – Determination of water insoluble solids
Price Code: Gr. 3
4 pages
Identical to ISO 751:1998

Specifies a method for the determination of the content of water-insoluble solids in the edible parts of fruit and vegetable products.

ZWS ISO 762:2003
Fruit and vegetable products – Determination of mineral impurities content
Price Code: Gr. 3
5 pages
Identical to 762:2003

Specifies a method for the determination of the mineral impurities content (impurities generally originating from the soil) of fruit and vegetable products.

ZWS ISO 763:1982
Fruit and vegetable products – Determination of ash insoluble in hydrochloric acid
Price Code: Gr. 2
4 pages
Identical to ISO 763:2003

Specifies a method for the determination of the hydrochloric acid in soluble ash yielded by fruit and vegetable products.

ZWS ISO 780:2015
Packaging – Distribution packaging – Graphical symbols for handling and storage of packages
Price Code: Gr. 6
12 pages
Identical to ISO 780:2015

This International Standard specifies a set of graphical symbols conventionally used for marking of distribution packages in their physical distribution chain to convey handling instructions. The graphical symbols should be used only when necessary. This International Standard is applicable to packages containing any kind of goods, but does not include instructions specific to handling of dangerous goods.

ZWS ISO 789:1999
Agricultural tractors –Test procedures
Part 4: Measurement of exhaust smoke
Price Code: Gr. 4
7 pages
Identical to ISO 789:Part 4 1986

Specifies a method for measuring the smoke emitted by the engines of agricultural tractors operating as steady speed.

ZWS ISO 862:1984
Surface active agents – vocabulary
price Code: Gr. 7
35 pages
Identical to ISO 862:1984

This International Standard defines terms frequently used in the field of surface active agents.

ZWS ISO 1026:1982
Fruit and vegetable products – Determination of dry matter content by drying under reduced pressure and of water content by Azeotropic distillation
Price Code: Gr. 2
4 pages
Identical to ISO 1026:1982

Specifies a method for the determination of the dry matter content of fruit and vegetable products by drying under reduced pressure and a method for the determination of water content by azeotropic distillation.

ZWS ISO 1042:1998
Laboratory glassware – one-mark volumetric flasks
Price Code: Gr. 5
8 pages
Identical to ISO 1042:1998 (confirmed in 2019).

This International Standard specifies requirements for an internationally acceptable series of one-mark volumetric flasks, suitable for general laboratory purposes.

ZWS ISO 1133:2000
Plastics – Determination of the mass-flow rate (MFR) and the melt-volume flow rate (MVR) of thermoplastics
Price Code: Gr. 4
1 pages
Identical to ISO 1133: 1997

Specifies a method for the determination of the melt mass flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastic materials under specifies conditions of temperature and load.

ZWS ISO 1167: Part 1:2006
Thermoplastics pipes, fittings, and assemblies for the conveyance of fluids – Determination of the resistance to internal pressure
Part 1: General method
Price Code: Gr. 5
8 pages
Identical to ISO 1167: Part 1:2006

This part of ISO 1167 specifies a general test method for determining the resistance to internal hydrostatic pressure at a given temperature of thermoplastics pipes, fittings and piping systems for the transport of fluids. The method accommodates water in water, water in air and water in liquid tests.

ZWS ISO 1167: Part 2:2006
Thermoplastics pipes, fittings, and assemblies for the conveyance of fluids – Determination of the resistance to internal pressure
Part 2: Preparation of pipe test pieces
Price Code: Gr. 5
4 pages
Identical to ISO 1167: Part 2:2006

This part of ISO 1167 specifies the dimensions and method for preparation of extruded, or injection-moulded tubular, test pieces used to determine the resistance of thermoplastics pipes to internal hydrostatic pressure according to ISO 1167-1.

ZWS ISO 1167: Part 3:2007
Thermoplastics pipes, fittings, and assemblies for the conveyance of fluids – Determination of the resistance to internal pressure
Part 3: Preparation of components
Price Code: Gr. 5
9 pages
Identical to ISO 1167: Part 3:2007

This part of ISO 1167 specifies the procedure for the preparation of components, i.e. fittings and valve bodies, for the determination of their resistance to internal hydrostatic pressure according to ISO 1167-1.

ZWS ISO 1167: Part 4:2007
Thermoplastics pipes, fittings, and assemblies for the conveyance of fluids – Determination of the resistance to internal pressure
Part 4: Preparation of assemblies
Price Code: Gr. 5
6 pages
Identical to ISO 1167: Part 4:2007

This part of ISO 1167 specifies the procedure for the preparation of both end load bearing and non end load bearing assemblies, for the determination of their resistance to internal hydrostatic pressure according to ISO 1167-1.

ZWS ISO 1211:2002
Milk – Determination of fat content – Gravimetric method (Reference method)
Price Code: Gr. 5
14 pages
Identical to ISO 1211: 1999
Specifies the reference method for the determination of the fat content of milk.

ZWS ISO 1442:2023
Meat and meat products — Determination of moisture content — Reference method
Price Code: Gr. 5
8 pages
Replaces ISO 1442: 1992
Identical to ISO 1442:2023

This document specifies two reference methods for the determination of the moisture content of meat and meat products: a direct drying method and a distillation method. The direct drying method is applicable to meat and meat products with low volatile substances in addition to moisture. The distillation method is applicable to meat and meat products with high volatile substances in addition to moisture.

ZWS ISO 1443:1998
Meat and meat products – Determination of total fat content
Price Code: Gr. 1
2 pages

Specifies a reference method for the determination of the total fat content of meat and meat products.

ZWS ISO 1461:2001
Hot-dip galvanized coasting on iron and steel articles
Price Code: Gr. 6
18 pages
Technically identical to ISO 1461: 1999
Replaces ZWS 648: 1998

Specifies the general properties and methods of test for coatings applied by hot dipping in zinc (containing not more than 2 % of other metals) on fabricated iron and steel articles.

ZWS ISO 1516:2002
Determinaion of flash/no flash – Closed cup equilibrium method
Price Code: Gr. 5
9 pages
Identical to ISO 1516:2002

Specifies a method to determine if paints, varnishes, paint binders, solvents, petroleum or related products when maintained at a selected equilibrium temperature and under the conditions of the test give off sufficient flammable vapour to cause ignition on application of an external source of flame applied in a standard manner

ZWS ISO/IEC 1523:2002
Determination of flash point – Closed cup equilibrium method
Price Code: Gr. 5
11 pages
Identical to ISO/IEC 1523

Specifies a method to determine the flash point of paints, varnishes, paint binders, solvents, petroleum or relatd products.

ZWS ISO 1572:2003
Tea-preparation of ground sample of known dry matter content
Price Code: Gr. 2
2 pages
Identical to ISO 1572: 1980

Specifies a method of preparing ground sample of tea and of determining its dry content for use in analytical determinations which require the results to be expressed on the dry basis.

ZWS ISO 1573:2003
Tea-Determination of loss in mass 103ºC
Price Code: Gr. 2
2 pages
Identical to ISO 1573: 1980

Specifies a method for the determination of the loss in mass when tea is heated in air at 103ºC.

ZWS ISO 1575: 2003
Tea – Determination of total ash
Price Code: Gr. 2
2 pages
Identical to ISO 1575 1987

Specifies a method for the determination of total ash from tea

ZWS ISO 1576:2003
Tea – Determination of water – soluble ash and water in soluble ash
Price Code: Gr. 2
2 pages
Identical to ISO 1576: 1988

Specifies a method for the determination of water soluble ash and water soluble ash tea.

ZWS ISO 1577:2003
Tea – Determination of acid insoluble ash
Price Code: Gr. 2
2 pages
Identical to ISO 1577 1987

Specifies a method for the determination of the acid – in soluble ash from tea.

ZWS ISO 1578:2003
Tea – Determination of alkalinity of water-soluble ash
Price Code: Gr.2
2 pages

Specifies the reference method for the determination of the fat content of all types of cheese and processed cheese products.

ZWS ISO 1736:2009
Dried milk and dried milk products – Determination of fat content – Gravimetric method (Reference method)
Price Code: Gr. 4
14 pages
Identical to ISO 1736:2000

Specifies the reference method for the determination of the fat content of dried milk products.

ZWS ISO 1737:2002
Evaporated milk and sweetened condensed milk – Determination of fat content – Gravimetric method (Reference method)
Price Code: Gr. 7
14 pages
Identical to ISO 1737: 1999

Specifies the reference method for the determination of the fat content of all types of evaporated milk and sweetened condensed milk.

ZWS ISO 1738:2001
Butter – Determination of salt content
Price Code: Gr. 2
5 pages
Identical to ISO 1738: 1997

Specifies a method for the determination of the salt content of butter. Method is applicable to all types of butter containing more than 0.1 % (m/m) of salt.

ZWS ISO 1739:2006
Butter – Determination of refractive index of the fat (Reference method)
Price Code: Gr. 4
4 pages
Identical to ISO 1738: 1997

Specifies a reference method for the determination of the refractive index of the fat obtained by melting butter

ZWS ISO 1740:2005
Milk fat products and butter – Determination of fat acidity (Reference method)
Price Code: Gr. 4
7 pages
Identical to ISO 1740: 2004

Specifies a method for the determination of acidity of the fat contained in milk fat products and in butter.

ZWS ISO 1839:2003
Tea – Sampling
Price Code: Gr. 3
3 pages
Identical to ISO 1839: 1980

Specifies the method for sampling tea. Applies to sampling fro containers of all sizes.

ZWS ISO 1841:1998
Meat and meat products – Determination of chloride content
Part 2: Potentlometric method
Price Code: Gr. 2
3 pages
Identical to ISO 1841: Part 2: 1996

Specifies a method for the determination of the chloride content of meat and meat products.

ZWS ISO 1842:1991
Fruit and vegetable products – Determination of pH
Price Code: Gr. 2
2 pages
Identical to ISO 1842:1991

Specifies a potentiometric method of measuring the pH of fruit and vegetable products.

ZWS ISO 1854:2009
Whey cheese – Determination of fat content – Gravimetric method
Price Code: Gr.5
Identical to ISO 1854:2008
14 pages

Specifies the reference method for the determination of fat content of whey cheese.It is not applicable to products which do not dissolve completely in ammonia solution or which contain free fatty acids in significant quantities.

ZWS ISO 1924:1999
Paper and Board – Determination of tensile properties
Part 1: Constant rate of loading method
Price Code: Gr. 4
5 pages
Identical to ISO 1924: part 1: 1992

Specifies a method of measuring the tensile strength, of paper and board using an instrument operating at a constant rate of application of tensile force.

Part 2: Constant rate of elongation method
Price Code: Gr. 4
8 pages
Identical to ISO 1924: Part 2: 1994

Specifies a method of measuring the tensile strength, stretch at break and tensile energy absorption of paper and board using a test instrument operating at a constant rate of elongation.

ZWS ISO 1955:1982
Citrus fruits and derived products – Determination of essential oil content (Reference Method)
Price Code: Gr. 2
3 pages
Identical to ISO 1955:1982

Specifies the reference method for the determination of the total essential oils content of citrus fruits and their derived products (whole fruits, fruits cut into small pieces, skins, juices, concentrates, beverage bases, sweetened products etc.

ZWS ISO 2171:2023
Cereals, pulses and by-products - Determination of ash yield by incineration
Price Code: Gr. 4
12 pages
Identical to ISO 2171:2023

This document specifies a method for determining the ash yield by cereals, pulses and their milled products intended for human consumption. The source materials and products covered are:
a)grains of cereals;
b)flours and semolinas;
c)other milling products (bran and high bran content products, shorts);
d)mixed cereal flours (mixes);
e)cereal by-products other than c) (such as wheat gluten, maize grits, broken rice kernels);
f)pulses and their by-products (flour).
This document does not apply to starches and starch derivatives (see ISO 3593), to products intended for animal feeding stuffs (see ISO 5984) or to seeds.

ZWS ISO 2172:1983
Fruit juice – Determination of soluable solids content – Pyknometric method
Price Code; Gr. 2
3 pages
Identical to ISO 2172:1983

Applicable to fruit juice containing no suspended matter and to clear concentrated juice. It is not applicable to other fruit and vegetable products, for which the method specified in ISO 2173 should be used.

ZWS ISO 2173:2003
Fruit and vegetable products – Determination of soluble solids – Refractometric method
Price Code: Gr. 3
8 pages
Identical to ISO 2173:2003

Specifies a refractometric method for the determination of the soluble solids in fruit and vegetable products.

ZWS ISO 2294:1998
Meat and Meat products – Determination of total phosphorous content (reference method)
Price Code: Gr. 2
3 pages
Identical to ISO 2294: 1974

Specifies a reference method for the determination of the total phosphorus content of meat and meat products.

ZWS ISO 2307:2000
Ropes – Determination of certain physical and mechanical properties
Price Code: Gr. 4
9 pages
Identical to ISO 2307: 2000

Specifies, for ropes of different kinds, a methodof determination of certain physical and mechanical properties.

ZWS ISO 2408:2017
Steel wire ropes – Requirements
Price Code: Gr. 7
48 pages
Identical to ISO 2408: 2017
Replaces COMESA ZWS HS ISO 2408:20026

This document specifies requirements for the manufacture, testing, acceptance, packing, marking and issuing of a certificate of quality of wire ropes. It is applicable to round strand ropes and compacted strand ropes made from wires ropes that are uncoated (bright), zinc-coated or Zn-Al coated.
It is not applicable to ropes for
—mining purposes,
—aircraft control,
—aerial ropeways and funiculars, and
—lifts.

ZWS ISO 2446:2008
Milk – Determination of fat content
Price Code: Gr. 5
12 pages

Specifies the Gerber method for the determination of fat content of milk and includes guidance on the determination of the appropriate capacity of the milk pipette.

ZWS ISO 2450:2011
Cream – Determination of fat content – Gravimetric method (Reference method)
Price Code: Gr 5
14 pages
Identical to ISO: 2450: 2008
Replaces ZWS ISO 2450:2001

Specifies the reference method for the determination of fat content of raw, processed and sour cream in which no appreciable separation or breakdown of fat,due to lipolysis,has occurred.

ZWS ISO 2469:2009
Paper, Board and pulp – Measurement of diffuse reflectance factor
Price Code: Gr. 4
7 pages
Identical to ISO 2469: 1994

Specifies the equipment for measuring the diffuse reflectance factor of pulp, paper and board the procedures for calibrating that equipment.

ZWS ISO 2505:2005
Thermoplastics pipes — Longitudinal reversion — Test method and parameters
Price Code: Gr. 4
5 pages
Identical to ISO 2505:2005

This International Standard specifies a method for determining the longitudinal reversion of thermoplastics pipes, to be carried out in either a liquid or in air. In case of dispute, heated liquid is used as the reference. This International Standard is applicable to all thermoplastics pipes with smooth internal and external walls of constant cross section. It is not applicable to non smooth structured wall thermoplastics pipes. The parameters appropriate to the pipe material and recommendations for the maximum levels of reversion as a function of the pipe material are given in Annex A.

ZWS ISO 2859:2003
Sampling procedures for inspection by attributes
Part 0: Introduction to ZWS ISO 2859 attribute sampling system
Price Code: Gr. 8
56 pages
Identical to ISO 2859: 1995

Explains the terms used in acceptance sampling, describes the various schemes and plans, gives practical advice on sampling inspection and discusses some of the theoretical aspects.

Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot by lot inspection
Price Code: Gr. 8
87 pages
Identical to ISO 2859-1: 1999

Specifies an acceptance sampling system for inspection by attributes. Indexed in terms of the acceptance quality limit.

Part 2: Sampling plans indexed by limiting quality (LQ) for isolate lot inspection
Price Code: Gr. 6
21 pages
Identical to ISO 2859-2: 1985

Establishes LQ sampling plans and procedures for inspection by attributes compatible with ISO 2859-1 that can be used when switching rules given in ISO 2859-1 are not applied.

Part 3: Skip lot sampling procedures
Price Code: Gr. 5
16 pages
Identical to ISO 2859-2: 1993

Specifies generic attributes skip-lot sampling procedures for reducing the inspection effort on products submitted by those suppliers who have demonstrated their ability to enroll, in an effective manner, all facets of quality and who consistently produce lot which meet requirements.

Part 4: Procedures for assessment of declared quality levels
Price Code: Gr. 5
12 pages
Identical to ISO 2859-4: 2002

Establishes sampling plans and procedures that can be used to assess whether the quality level of an entity (lot, process etc) conforms to a declared value.

ZWS ISO 2911:2005
Sweetened condensed – milk-determination of sucrose content – polarimetric method
Price Code: Gr. 5
7 pages
Identical to ISO 2911: 2004

Specifies a method for the determination of sucrose in sweetened condensed milk. This method is applicable to sweetened condensed milk of normal composition from whole partially skimmed or skimmed milk and sucrose only and containing no altered sucrose.

ZWS ISO 3057:1998
Non-Destructive testing –Metallographic replica techniques of surface examination
Price Code: Gr. 2
2 pages
Identical to ISO 3057:1998

Specifies techniques of surface examination in which transparent nitrocellulose varnish, or plastic material, with or without supports, is used to record inhomogeneities, both mechanical and metaluurgical, in the condition of a metal surface.

ZWS ISO 3058:1998
Non-Destructive testing –Aids to visual inspection – Selection of low-power magnifiers
Price Code: Gr. 5
6 pages
Identical to ISO 3058:1998

Specifies the characteristics of the 9single element magnifier, multi-element magnifier and twin system magnifiers) of low-power magnifiers and gives recommendations for their selection for the inspection of surfaces.

ZWS ISO 3059:2012
Non-Destructive testing –Penetrant testing and magnetic particle testing –Viewing conditions
Price Code: Gr. 4
5 pages
Identical to ISO 3059: 2012

Specifies the contro of the viewing conditions for magnetic particle and penetrant testing. It includes minimum requirements for the illuminance and UV-A irradiance and their measurement.

ZWS ISO 3093:2009
Wheat, rye and their flours, durum wheat and durum wheat semolina — Determination of the falling number according to Hagberg-Perten
Price Code: Gr. 3
14 pages
Identical to ISO 3093:2009

This International Standard specifies the determination of the □-amylase activity of cereals by the falling number (FN) method according to Hagberg-Perten. This method is applicable to cereal grains, in particular to wheat and rye and their flours, durum wheat and its semolina. This method is not applicable to the determination of low levels of □-amylase activity. By converting the FN into a liquefaction number (LN), it is possible to use this method to estimate the composition of mixtures of grain, flour or semolina with known FNs necessary to produce a sample of a required FN.

ZWS ISO 3103:2019
Tea - Preparation of liquor for use in sensory tests
Price Code: Gr. 3
8 pages
Identical to ISO 3103:2019

This document specifies a method for the preparation of a liquor of tea for use in sensory tests, by means of infusing the leaf.

ZWS ISO 3104:1994
Petroleum products – Transparent and opaque liquids – Determination of kinetic viscocity and calculation of dynamic viscocity
Price Code: Gr. 5
13 pages
Identical to ISO 3104:1994

Specifies a procedure for the determination of the kinematic viscocity, *v* of liquid petroleum products both transparent and opaque by measuring the time for a volume of liquid to flow under gravity through a calibrated glass capillary viscometer.

ZWS ISO 3127:1994
Thermoplastics pipes – Determination of resistance to external blows – Round-the-clock method
Price Code: Gr. 6
11 pages
Identical to ISO 3127:1994

This International Standard specifies a method for the determination of the resistance to external blows of thermoplastics pipes of circular cross-section; it is called the round-the-clock method. This method is applicable to isolated batches of pipe tested at 0 ºC (information is also given for sampling from the continuous production of pipe).

ZWS ISO 3173:1999
Road vehicles – Apparatus for measurement of opacity of exhaust gas from diesel engines operating under steady state conditions
Price Code: Gr. 7
28 pages
Identical at ISO 3173: 1974

Specifies the general requirement and the installations of instruments for measuring the light obscuration of exhaust gas from diesel engines for driving road vehicles, operating under steady state conditions.

ZWS ISO 3219:1993
Plastics – Polymers/resins in the liquid state or as emulsions or dispersions – Determination of viscosity using a rotational viscometer with defined shear rate
Price Code: Gr. 4
11 pages
Identical to ISO 3219:1993

Specifies the general principles of a method for determining the viscosity of polymers and resins in the liquid, emulsified or dispersed state, including polymer dispersions at a defined shear rate by means of rotational viscometers with standard geometry.

ZWS ISO 3356 and IDF 63:2009
Milk — Determination of alkaline phosphatase
Price Code: Gr. 3
4 pages
Identical to ISO 3356:2009

This International Standard specifies a method for the determination of alkaline phosphatase activity in milk. The method applies to alkaline phosphatase activities not less than 1 µg of phenol per millilitre. The method is also suitable for the determination of alkaline phosphatase activity in milk powder, buttermilk and buttermilk powder, whey and whey powder.

ZWS ISO 3394:2012
Packaging – Complete, filled transport packages and unit loads – Dimensions of rigid rectangular packages
Price Code: Gr. 5
9 pages
Identical to ISO 3394:2012

This International Standard sets forth a series of dimensions for rigid rectangular transport packages, based on the standard plan dimension (module) of 600 mm × 400 mm, 600 mm × 500 mm and 550 mm × 366 mm, as outlined in ISO 3676, which defines the

plan dimensions of four series (1 219 mm × 1 016 mm, 1 200 mm × 1 000 mm, 1 200 mm × 800 mm, 1 100 mm × 1 100 mm).

ZWS ISO 3432:2008
Cheese – Determination of fat content butyrometer for van gulik method
Price Code: Gr 5
7 pages
Identical to ISO 3432:2008
Specifies the characteristics of a butyrometer for the determination of the fat content, in the range 0% mass fraction to 40% mass fraction, of cheese by the van gulik method and illustrates suitable devices for weighing and introducing the cheese test portion.

ZWS ISO 3433:2008
Cheese – Determination of fat content - Van Gulik method
Price Code: Gr 5
7 pages
Identical to ISO 3433:2008

Specifies the Van Gulik method for the determination of the fat content, as a mass fraction, of cheese.

ZWS ISO 3452:2012
Non-Destructive testing –Penetrant testing
Part 1: General Principles
Price Code: Gr. 6
22 pages
Identical to ISO 3059.1: 2012

Specifies the method of penetrant testing used to detect discontinuities eg cracks, laps, folds, porosity and lack of fusion , which are open to the surface of the material to be tested mainly applied to metallic material but can also be performed on other materials provided that they are inert to the test media and not excessively porous.

Part 2:2013 Testing of penetrant materials
Price Code: Gr. 5
25 pages
Identical to ISO 3059.2: 2013

Specifies the technical requirements and test procedures for penetrant materials for their type testing and batch testing covers the temperature range 10ºC to 50 ºC.

Part 3: Reference test blocks
Price Code: Gr. 4
6 pages
Identical to ISO 3059.3: 2013

Specifies the two types of reference blocks, type 1 blocks used to determine the sensitivity levels of both fluorescent and colour contrast penetrant product family and type 2 blocks used for routine assessment of the performance of both fluorescent and colour contrast penetrant testing.

Part 4:1998 Equipment
Price Code 5
5 pages

Specifies the characteristics of equipment used in penetrant testing depending on the number of tests to be made and on the size of the components to be tested.

Part 5:2008 Testing of penetrant materials
Price Code: Gr. 5
7 pages
Identical to ISO 3059.5: 2008

Specifies the testing requirements particular to applications at higher temperatures over 50 ºC and also the method for qualification of suitable testing products. I t applies only to material qualified for the relevant temperature range used in accordance with the manufacturer's instruction.

Part 6:2008 Penetrant testing at temperatures lower than 10ºC
Price Code: Gr. 5
5 pages
Identical to ISO 3059.6: 2008

Specifies the testing requirements particular to applications at low temperatures lower than 10 ºC as well as the method for qualification of suitable testing products. I t applies only to material qualified for the relevant temperature range used in accordance with the manufacturer's instruction.

ZWS ISO 3574:2012
Cold-reduced carbon steel sheet of commercial and drawing qualities
Price Code:Gr. 5
10 pages
Identical to ISO 3574:2012
Replaces COMESA ZWS HS ISO 3574:2007

This International Standard applies to cold-reduced carbon steel sheet of commercial and drawing qualities. It is suitable for applications where the surface is of prime importance.

ZWS ISO 3679:2004
Determination of flash point rapid equilibrium closed cup method
Price Code:Gr. 4
18 pages
Identical to ISO 3679:2004

Specifies a method for the determination of the closed cup flash point of paints (including water-borne paints), varnishes, paint binders, adhesives, solvents, petroleum and related products having closed cup flash points within the range of -30^{0}C to 300^{0}C. When used in conjunction with the flash detector (A.1.6), it is also suitable for the determination of the flash point of fatty acid methyl esters (FAME).

ZWS ISO 3680:2004
Determination of flash/no flash – Rapid equilibrium closed cup method
Price Code: Gr. 6
19 pages
Identical to ISO 3680:2004

Specifies a method for the determination of the ability of paints (including waterborne paints), varnishes, paint binders, adhesives, solvents and petroleum and related products, when maintained at a selected test temperature within the range of -30^{0}C to 300^{0}C and under the conditions of test to yield sufficient flammable vapour at this temperature to cause ignition on the applicationof a test flame in a standard manner.

ZWS ISO 3720:2003
Black Tea – Definition and basic requirements
Price Code: Gr. 2
2 pages
Identical to ISO 3720

Specifies the parts of a named plant that are suitable for making black tea for consumption as a beverage and the chemical requirements for tea that are used to indicate that tea from that source has been produced in accordance with good production practice, also

specifies the packing and marking requirements for black tea in containers

ZWS ISO 3727:2005
Butter – Determination of moisture, non-fat solids and fat contents
Part 1: Determination of moisture content (Reference method)
Price Code: Gr. 3
6 pages
Identical to ISO 3727-1: 2005

Specifies a method for the determination of the moisture content of butter.

Part 2: Determination of non-fat solids content (Reference method)
Price Code: Gr. 4
6 pages
Identical to ISO 3727-2: 2001

Specifies a method for the determination of the moisture content of butter.
ZWS ISO 3728/IDF 70: 2004
Ice-cream and milk ice — Determination of total solids content (Reference method)
Price Code: Gr. 2
5 pages
Identical to ISO 3728:2004

This International Standard specifies a reference method for the determination of the total solids content of ice-cream, milk ices and similar products.

ZWS ISO 3740:2000
Acoustic – Determination of sound power levels of noise sources - guidelines for the use of basic standards
Price Code: Gr. 7
25 pages
Identical to ISO 3747:2010

Standard gives guidance for the use of a series of nine international standards describing various methods for determining the sound power levels from all types of machinery and equipment. It applies only to airbone sound

ZWS ISO 3747:2010
Acoustic – Determination of sound power levels and sound energy levels of noise sources using sound pressure – Engineering/survey methods for use isitu in a reverberant environment
Price Code: Gr. 7
43 pages
Identical to ISO 3747:2010

Specifies a method for determining the sound power level or sound energy level of a noise source by comparing measured sound pressure levels emitted by a noise source (machinery or equipment) mounted in situ in a reverberant environment, with those from a calibrated reference sound source. The sound power level (or in the case of noise bursts or transient noise emission, the sound energy) produced by the noise, in frequency bands of width one octave, is calculated using those measurements.

ZWS ISO 3758:2000
Textiles – Care labeling code using symbols
Price Code: Gr. 3
6 pages
Identical to ISO 3758: 1991

Establishes a system of graphic symbols, intended for use in permanent marking of textiles articles, providing information essential for their proper care, and specifies the use of these symbols in care labeling.

ZWS ISO 3779:1998
Road vehicles-Vehicles identification number (VIN) Content and structure
Price Code: Gr. 2
3 pages
Identical to ISO 3779: 1983

Specifies the content and structure of a vehicle identification number (VIN) in order to establish, on a world-wide basis, a uniform identification numbering system for road vehicles

ZWS ISO 3780:1998
Road vehicles – World manufacturer identifier (WMI) code
Price Code: Gr. 1
2 pages
Identical to ISO3780: 1983

This International Standard specifies the content and structure of an identifier in order to establish, on a world-wide basis, the identification of road vehicle manufacturers. The world manufacturer identifier (WMI) constitutes the first section of the vehicle identification number (VIN) described in ISO 3779. This International Standard applies to motor vehicles, towed vehicles, motorcycles and mopeds as defined in ISO 3833.

ZWS ISO 3781:1998
Paper and board – Determination of tensile strength after immersion in water
Price Code: Gr. 2
4 pages
Identical to ISO3781: 1983

Specifies methods for the determination of tensile strength after it has immersed in water for a specified method.

ZWS ISO 3801:1998
Textiles – Woven fabrics – Determination of mass per unit length and mass per unit area
Price Code: Gr. 2
4 pages
Identical to ISO 3801: 1977

Specifies methods for determination of mass per unit length and the mass per unit area of woven fabrics.

ZWS ISO 3833:1998
Road vehicles – Types – Terms and definitions
Price Code: Gr. 5
11 pages
Identical to ISO3833: 1978

Defines terms relating to some types of road vehicls designated according to certain design and technical characteristics.

ZWS ISO 3837:1993
Liquid petroleum products – Determination of hydrocarbon types – Fluorescent indicator absorption method
Price Code: Gr. 5
8 pages
Identical to ISO 3837:1993

Specifies a fluorescent indicator absorption method for the determination of hydrocarbon types over the concentration ranges from 5% (V/V) to 99% (V/V) aromatic hydrocarbons, 0,3% (V/V) to 55% (V/V) olefins and 1% (V/V) to 95% (V/V) saturated hydrocarbons in petroleum fractions that distill below 315^{0}C.

ZWS ISO 3864: Part 1:2011
Graphical symbols –Safety colours and safety signs:
Part 1: design principles for safety signs and safety markings
Price Code: Gr. 7
16 pages
Identical to ISO 3864: Part 1:2011

IMPORTANT — The colours represented in the electronic file of this part of ISO 3864 can be neither viewed on screen nor printed as true representations. Although the copies of this part of ISO 3864 printed by ISO have been produced to correspond (with an acceptable tolerance as judged by the naked eye) to the colour requirements, it is not intended that these printed copies be used for colour matching. Instead, consult ISO 3864-4 which provides colorimetric and photometric properties together with, as a guideline, references from colour order systems. This part of ISO 3864 establishes the safety identification colours and design principles for safety signs and safety markings to be used in workplaces and in public areas for the purpose of accident prevention, fire protection, health hazard information and emergency evacuation. It also establishes the basic principles to be applied when developing standards containing safety signs. This part of ISO 3864 is applicable to all locations where safety issues related to people need to be addressed. However, it is not applicable to the signalling used for guiding rail, road, river, maritime and air traffic and, generally speaking, to those sectors subject to a regulation which may differ.
NOTE: Some countries' statutory regulations might differ in some respect from those given in this part of ISO 3864.

ZWS ISO 3864: Part 2:2016
Graphical symbols –Safety colours and safety signs:
Part 2:2016: Design principles for product safety labels
Price Code: Gr. 6
19 pages
Identical to ISO 3864: Part 2:2016

This document establishes additional principles to ISO 3864 1 for the design of safety labels for products, i.e. any items manufactured and offered for sale in the normal course of commerce, including but not limited to consumer products and industrial equipment. The purpose of a product safety label is to alert persons to a specific hazard and to identify how the hazard can be avoided. This document is applicable to all products in all industries where safety-related questions can be posed. However, it is not applicable to safety labels used for chemicals, for the transport of dangerous substances and preparations and in those sectors subject to legal regulations which differ from certain provisions of this document. The design principles incorporated in this document are intended to be used by all ISO Technical Committees and anyone designing product safety labels in the development of product safety label standards for their industries or services.

ZWS ISO 3864: Part 3:2024
Graphical Symbols – Safety Colors and Safety Signs
Part 3: Design principles for graphical symbols for use in safety signs
Price Code: Gr. 8
25 pages
Identical to ISO 3864: Part 3:2024

This part of ISO 3864 gives principles, criteria and guidance for the design of graphical symbols for use in safety signs as defined in ISO 3864 1, and for the safety sign element of product safety labels as defined in ISO 3864 2.

ZWS ISO 3864: Part 4: 2011
Graphical symbols – Safety colours and safety signs:
Part 4: 2011: Colorimetric and photometric properties of safety sign materials
Price Code: Gr. 8
24 pages
Identical to ISO 3864: Part 4: 2011

This part of ISO 3864 establishes the colorimetric and photometric requirements and test methods for the colours of safety signs to be used in workplaces and public areas. It provides the colorimetric and photometric specifications for the named safety and contrast colours prescribed in ISO 3864-1. The physical requirements that safety signs have to meet are primarily related to daytime colour and normally lit environments. This part of ISO 3864 also includes the colorimetric requirements and test methods for safety signs and phosphorescent material which also operate in unlit environments. This part of ISO 3864 is applicable to all locations where safety issues related to people need to be addressed. However, it is not applicable to signalling used for guiding rail, road, river, maritime and air traffic and, generally speaking, to those sectors subject to a regulation that may differ. The colorimetric and photometric properties of retroreflective safety signs, retroreflective materials combined with fluorescent or phosphorescent materials, or luminous safety signs activated by a radioactive source are not specified in this part of ISO 3864.

ZWS ISO 3890:2009
Milk and milk products – Determination of residues of organochlorine compounds (pesticides)
Part 1: General considerations and extraction methods
Price Code: Gr. 6
17 pages
Identical to ISO 3890.1:2009

Describes general considerations and specifies extraction methods for the determination of residues of organochlorine pesticides in milk and milk products.

Part 2:Test methods for crude extract purification and confirmation
Price Code: Gr. 7
31 pages
Identical to ISO 3890.2:2009

Specifies test methods for the purification of the crude extracts obtained by the general methods given in ISO 3890.1| DF 75-1. It also gives recommended methods for the determination of the residues of organochlorine compounds in milk and milk products, together with confirmatory teste and clean up procedures.

ZWS ISO 3894:2010
Road Vehicles – Wheels / Rims for commercial vehicles – Test methods
Price Code: Gr. 5
10 pages
Identical to ISO 3894:2005

Specifies three laboratory methods for testing certain essential strength characteristics of disc wheels and demountable rims intended for road use on commercial vehicles,buses,trailers and multipurpose passenger vehicles,as defined in ISO 3833.

ZWS ISO 3929:1999
Road vehicles – Measurement methods for exhaust gas emissions during inspection or maintenance
Price Code: Gr. 3
6 pages
Identical to ISO 3929:1995

Establishes the test procedures for direct measurement of the concentration of exhaust gas emissions from road vehicles.

ZWS ISO 3930:2001
Instruments for measuring vehicle exhaust emissions
Price Code: Gr. 7
27 pages
Identical to ISO 3930:2000

Specifies the metrological and technical requirements and tests for measuring instruments that serve to determine the volume fraction of certain components of the exhaust gases emanating from motor vehicles.

ZWS ISO 3932:1998
Textiles – Woven fabrics – Measurement of width of pieces
Price Code: Gr. 2
4 pages
Identical to ISO 3932:1976

Specifies two methods for the determination of the width of pieces of woven fabrics that are in the state of relaxation obtained by exposure(free from applied tension) to the standard atmosphere for testing.

ZWS ISO 3933:1998
Textiles – Woven fabrics – Measurement of length of pieces
Price Code: Gr. 2
3 pages
Identical to ISO 3933:1976

Specifies two methods for the determination of the length of pieces (of any length) of woven fabrics that are in the state of relaxation obtained by exposure (free from applied tension) to the standard atmosphere for testing.

ZWS ISO 3950:2016
Dentistry - Designation system for teeth and areas of the oral cavity
Price Code: Gr. 6
4 pages
Identical to ISO 3950:2016

This International Standard provides a system for designating teeth or areas of the oral cavity using two digits.

ZWS ISO/TR 4011:1999
Road vehicles – Apparatus for measurement ofopacity of exhaust gas from diesel engines
Price Code: Gr. 6
17 pages
Identical to ISO /TR 4011:1976

Establishes the specifications for devices for measuring the opacity of exhaust gas from diesel engines for road vehicles, and for their installations.

ZWS ISO 4074:2003
Natural latex rubber condoms – Requirements and test methods
Price Code: Gr. 7
46 pages
Identical to ISO 4074: Part 1:1976
Replaces ZWS ISO 4074: Part 1 – 10:1999
Amended by COR 1:2004

Specifies the minimum requirements and the test methods to be used for condoms made from natural rubber latex which applied to consumers for contraceptive purposes and to assist in the prevention of sexually transmitted infections.

ZWS ISO 4100:1998
Road vehicles – World parts manufacturer identifier (WPMI) code
Price Code: Gr. 2
3 pages
Identical to ISO 4100:1980

Specifies the content and structure of an identifier in order to establish, on a world-wide basis, the identification of the manufacturer of parts for road vehicles.

ZWS ISO 4198:1984
Surface active agents – Detergents for washing fabrics – guide for comparative testing of performance
Price Code: Gr. 5
10 pages
Identical to ISO 4198:1984

This International Standard establishes guidelines for carrying out comparative tests for determining the principal performance characteristics of detergents, solid or liquid, for domestic hand dishwashing which are of interest to the consumer. It lists and defines the performance characteristics considered; it gives details of the variables to be considered, indicates their significance and provides a basis for designing adequate comparative test methods.

ZWS ISO 4217:2015
Codes for the representation of currencies and funds
Price Code: Gr. 4
5 pages
Identical to ISO 4217:2015

This International Standard specifies the structure for a three-letter alphabetic code and an equivalent three-digit numeric code for the representation of currencies. For those currencies having minor units, it also shows the decimal relationship between such units and the currency itself. The scope of this International Standard also includes funds and precious metals. This International Standard also includes basic guidelines for its maintenance. This International Standard is intended for use in any application of trade, commerce and banking, where currencies and, where appropriate, funds are required to be described. It is designed to be equally suitable for manual users and for those employing automated systems.

ZWS ISO 4219:1999
Air quality –Determination of gaseous sulfur compounds in ambient air sampling equipment
Price Code: Gr. 2
4 pages
Identical to ISO 4219

Specifies general requirements for the equipment for the sampling of ambient air in order to determine gaseous sulphur compounds, particularly sulphur dioxide.

ZWS ISO 4220:1999
Ambient air – Determination of gaseous acid pollution index – Tritrimetric method with indicator or potentionmetric end point detection
Price Code: Gr. 3
5 pages
Identical to ISO 4220:1983

Specifies a Thorn spectrometric method for the determination of sulphur dioxide in ambient air.

ZWS ISO 4221:1999
Air quality – Determination of mass concentration of sulfur dioxide in ambient air -
Price Code: Gr. 4
7 pages
Identical to ISO 4221:1980

Specifies a thorn spectrophotometric methods for the determination of the mass concentration of sulfur dioxide in ambient air.

ZWS ISO 4225:2020
Air quality - General aspects - Vocabulary
Price Code: Gr. 4
21 pages
Identical to ISO 4225:2020
Replaces ISO 4225:1985

This document specifies terms and definitions that are related to air quality (see 3.1.1.1). These are either general terms or are used in connection with the sampling (see 3.3.3.1) and measurement of gases, vapours (see 3.1.5.8) and airborne particles (see 3.2.2.1) for the determination of air quality. The terms included are those that have been identified as being fundamental because their definition is necessary to avoid ambiguity and ensure consistency of use. An alphabetical index of the terms is provided in Annex A. This document is applicable to all International Standards, ISO Technical Reports, ISO Technical Specifications, and ISO Guides related to air quality.

ZWS ISO 4226:1999
Air quality – General aspects – Units of measurement
Price Code: Gr. 1
2 pages
Identical to ISO 4226:1993

Lays down the units and symbols to be used when reporting results of air quality measurements.

ZWS ISO/TR 4227:1999
Planning of ambient air quality monitoring
Price Code: Gr. 5
15 pages
Identical to ISO 4227: 1998

Establishes a classification scheme which should form a general basis for international standardization of ambient air quality monitoring and permits comparison between existing and planned ambient air quality monitoring systems.

ZWS ISO 4312:1989
Surface active agents - Evaluation of certain effects of laundering - Methods of analysis and test for unsoiled cotton control cloth
Price Code: Gr. 7
50 pages
Identical to ISO 4312: 1989

Specifies the methods to be used to determine, under strictly controlled conditions, certain characteristics of unsoiled cotton control cloth, namely intrinsic greying and yellowing, increase in organic deposit content and incineration residue, the Overall decrease in breaking strength, the decrease in breaking strength resulting from Chemical degradation of the cellulose and the decrease in breaking strength resulting from mechanical factors in laundering both before and after processing, so that certain effects of laundering can be evaluated.

ZWS ISO 4317:2009
Surface active agents and detergents – determination of water content – Karl Fischer methods
Price Code: Gr 5
14 pages
Identical to ISO 4317:2011
Superceeds COMESA ZWS HS ISO 4317:2007

ISO 4317:2011 specifies two titration methods (volumetric and coulometric) using Karl Fischer reagent for the determination of the water content of surface active agents and detergents. These methods are applicable to products in the form of powders, pastes and solutions. They are applicable only if so indicated in the specific standard for each product. As alkaline compounds react with Karl Fischer reagent, the methods give values which are too high in the case of samples containing alkali metal silicates, carbonates, hydroxides or borates. Therefore, samples need to be analysed for the presence of such alkali metal salts prior to the determination of the water content.

ZWS ISO 4319:1977
Surface active agents - Detergents for washing fabrics - Guide for comparative testing of performance
Price Code: Gr. 7
50 pages
Identical to ISO 4319: 1977

This International Standard constitutes a guide for carrying out comparative tests of fabric washing products in such a way as to realistically reflect the performance of the products likely to be used by consumers. It gives details of the variables to be considered, indicating the significance and importance of each of these variables, and provides a basis for the drawing up of adequate comparative test methods which will give a valid estimation of the performance of a fabric washing product when two or more products are compared during the same series of tests.

ZWS ISO 4344:2022
Steel wire ropes for lifts - Minimum requirements
Price Code: Gr. 7
35 pages
Identical to ISO 4344: 1977
Replaces Comesa ZWS HS ISO 4344:2006

This document specifies the minimum requirements for the manufacture and testing of stranded carbon steel wire ropes for lifts, made from bright and galvanized wire finish in various constructions from 6 mm to 38 mm diameter. It is applicable to ropes used for suspension duty on traction drive and roped hydraulic lifts, and for compensation and governor duties on passenger lifts, freight lifts, service lifts, and man lifts moving between guides.
It is not applicable to ropes for
—builder's hoists,
—temporary hoists not running between permanent guides,
—cable-ways,
—mine hoists.

ZWS ISO 4427:2007
Plastics piping systems - Polyethylene (PE) pipes and fittings Part 1: General
Price Code: Gr. 6
14 pages
Identical to ISO 4427.1: 2007
Amended by MD684

Specifies the general aspects of polyethylene (PE) piping systems (mains and service pipes) intended for the conveyance of water for human consumption, including raw water prior to treatment and water for general purpose.

ZWS ISO 4427: Part 2:2019/AMD 1:2023
Plastics piping systems for water supply, and for drainage and sewerage under pressure - Polyethylene (PE)
Part 2: Pipes
Price Code: Gr. 6
20 pages
Identical to ISO 4427.2:2019/AMD 1:2023

This document specifies the pipes made from polyethylene (PE) for buried or above ground applications, intended for the conveyance of:
—water for human consumption;
—raw water prior to treatment;
—drainage and sewerage under pressure;
—vacuum sewer systems;
—water for other purposes.
NOTE 1: The intended uses include sea outfalls, laid in water and pipes suspended below bridges.
Pipes complying with this document are not intended for the transport of water intended for human consumption in contaminated soils unless special consideration has been taken.
NOTE 2: For example, ISO 21004 provides an alternative solution for use in contaminated soils. See Reference [3] in the Bibliography.
This document specifies three types of pipe:
—PE pipes (outside diameter dn), including any identification stripes;
—PE pipes with co-extruded layers on either or both the outside and/or inside of the pipe (total outside diameter dn) where all layers have the same MRS rating;
—PE pipes (outside diameter dn) having a peelable and contiguous thermoplastics additional layer on the outside of the pipe ("coated pipe"). This document also specifies the test parameters for the test methods referred to in this document. In conjunction with the other parts of the ISO 4427 series, this document is applicable to PE pipes, their joints and to joints with components made of PE and other materials, intended to be used under the following conditions:
a) a maximum allowable operating pressure (PFA) up to and including 25 bar ;
b) an operating temperature of 20 °C as the reference temperature.
NOTE 3: For other operating temperatures, guidance is given in ISO 4427 1:2019, Annex A. This document covers a range of maximum allowable operating pressures and gives requirements concerning colours.
NOTE 4: It is the responsibility of the purchaser or specifier to make the appropriate selections from these aspects, taking into account their particular requirements and installation practices or codes.

Part 3: Fittings
Price Code: Gr. 7
31 pages
Identical to ISO 4427.3: 2007

Specifies the general aspects of fittings made from polyethylene (PE) for piping systems intended for the conveyance of water for human consumption, includ-ing raw water prior to treatment and water for general purposes.

Part 5: Fitness for purpose
Price Code: Gr. 5
7 pages
Identical to ISO 4427.5: 2007

Specifies the characteristics of the fitness for purpose of assembling piping systems made from polyethylene (PE) intended for the conveyance of water for human consumption, including raw water prior to treatment and water for general purpose.

ZWS ISO 4593:2000
Plastics – Film sheeting – Determination of thickness by mechanical scanning
Price Code: Gr. 1
2 pages
Identical to ISO 4593: 1993

Specifies a method for the determination of thickness of a sample of plastics film or sheeting by mechanical scanning.

ZWS ISO 4706:2023
Gas cylinders — Refillable welded steel cylinders — Test pressure 60 bar and below
Price Code: Gr. 7
31 pages
Identical to ISO 4706:2023

This document specifies the minimum requirements concerning material selection, design, construction and workmanship, procedure, and test at manufacture of refillable welded-steel gas cylinders of water capacities from 0,5 l up to and including 150 l and drums of water capacities of 150 l to 500 l of a test pressure not greater than 60 bar), exposed to extreme worldwide temperatures (−50 °C to +65 °C) used for compressed, liquefied or dissolved gases.
NOTE: Unless specified in the text, for the purpose of this document, the word "cylinder" includes "pressure drums". This document is primarily intended to be used for industrial gases other than liquefied petroleum gas (LPG), and is also applicable to LPG.

ZWS ISO 4831:2007
Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration coliforms- most probable number technique
Price Code: Gr 4
11pages
Identical to ISO 4831 : 2006
Replaces ZWS ISO 5541:2005

Gives general guidelines for the detection and enumeration of coliforms. It is applicable to products intended for human consumption and for the feeding of animals and environmental samples in the are of food production and food handling.

ZWS ISO 4832:2007
Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of coliforms – Colony count technique.
Price Code Gr 3
6 pages
Identical to ISO 4832:2006

Gives general guidelines for the enumeration of coliforms. It is applicable to products intended for human consumption and for the feeding of animals and environmental samples, in the area of food production and food production and food handling.

ZWS ISO 4833: Part 1:2013/Amd 1:2022
Microbiology of the food chain — Horizontal method for the enumeration of microorganisms
Part 1:2013 Colony-count techniques at 30˚C
Price Code Gr 5
10 pages
Identical to ISO 4833-1:2013/Amd 1:2022

This part of ISO 4833 specifies a horizontal method for enumeration of microorganisms that are able to grow and form colonies in a solid medium after aerobic incubation at 30 °C. The method is applicable to:
a) products intended for human consumption and for animal feed;

b)environmental samples in the area of food and feed production and handling.
This part of ISO 4833 is applicable to:
1) products that require a reliable count when a low limit of detection is specified (below 102/g or 102/ml for liquid samples or below 103/g for solid samples);
2) products expected to contain spreading colonies that obscure colonies of other organisms, e.g. milk and milk products likely to contain spreading Bacillus spp.
The applicability of this part of ISO 4833 to the examination of certain fermented food and animal feeds is limited and other media or incubation conditions can be more appropriate. However, this method can be applied to such products even though it is possible that the predominant microorganisms in those products are not detected effectively.
For some matrices, the method specified in this part of ISO 4833 can give different results to those obtained using the method specified in ISO 4833 2.

ZWS ISO 4833: Part 2:2013/Amd 1:2022
Microbiology of the food chain — Horizontal method for the enumeration of microorganisms
Part 2:2013 Colony-count at 30˚C by the surface plating technique
Price Code Gr 5
11 pages
Identical to ISO 4833-2:2013/Amd 1:2022

This part of ISO 4833 specifies a horizontal method for enumeration of microorganisms that are able to grow and form colonies on the surface of a solid medium after aerobic incubation at 30 °C. The method is applicable to:
a) products intended for human consumption or for animal feed;
b) environmental samples in the area of food and feed production and food handling. This part of ISO 4833 is applicable to:
1) products containing heat-sensitive organisms that are likely to form a significant proportion of the total flora (e.g. psychrotrophic organisms in chilled and frozen foods, dried foods, other foods that may contain heat-sensitive organisms);
2) products containing obligately aerobic bacteria that are likely to form a significant proportion of the total flora (e.g. Pseudomonas spp.);
3) products that contain small particles that can prove difficult to distinguish from colonies in a pour plate;
4) products whose intense colour prevents the recognition of colonies in a pour plate;
5) products for which distinction between different types of colony is required as part of the assessment of food quality.
In addition to the manual spread plating technique, this part of ISO 4833 also specifies the use of a spiral plater, a rapid method of performing surface colony counts (Annex A).
The applicability of this part of ISO 4833 to the examination of certain fermented food and animal feeds is limited and other media or incubation conditions can be more appropriate. However, this method can be applied to such products even though it is possible that the predominant microorganisms in these products are not detected effectively.
For some matrices, the method described in this part of ISO 4833 can give different results to those obtained using the method described in ISO 4833 1.

ZWS ISO 4833: Part 2:2013/Cor 1:2014
Microbiology of the food chain — Horizontal method for the enumeration of microorganisms —
Part 2: Colony count at 30˚C by the surface plating technique
Price Code Gr 5
11 pages
Identical to ISO 4833-2:2013/Cor 1:2014

This part of ISO 4833 specifies a horizontal method for enumeration of microorganisms that are able to grow and form colonies on the surface of a solid medium after aerobic incubation at 30 °C. The method is applicable to:
a) products intended for human consumption or for animal feed;
b) environmental samples in the area of food and feed production and food handling.
This part of ISO 4833 is applicable to:
1) products containing heat-sensitive organisms that are likely to form a significant proportion of the total flora (e.g. psychrotrophic organisms in chilled and frozen foods, dried foods, other foods that may contain heat-sensitive organisms);
2) products containing obligately aerobic bacteria that are likely to form a significant proportion of the total flora (e.g. Pseudomonas spp.);
3) products that contain small particles that can prove difficult to distinguish from colonies in a pour plate;
4) products whose intense colour prevents the recognition of colonies in a pour plate;
5) products for which distinction between different types of colony is required as part of the assessment of food quality.
In addition to the manual spread plating technique, this part of ISO 4833 also specifies the use of a spiral plater, a rapid method of performing surface colony counts (Annex A).
The applicability of this part of ISO 4833 to the examination of certain fermented food and animal feeds is limited and other media or incubation conditions can be more appropriate. However, this method can be applied to such products even though it is possible that the predominant microorganisms in these products are not detected effectively. For some matrices, the method described in this part of ISO 4833 can give different results to those obtained using the method described in ISO 4833 1.

ZWS ISO 4880:2011
Burning behavior of textiles and textile products - Vocabulary
Price Code: Gr. 5
14 pages
Identical to ISO 4880:1997

Defines terms used in testing the burning behavior of textiles and textile products.

ZWS ISO 4925:2020
Road vehicles – Specification of non-petroleum-based brake fluids for hydraulic system
Price Code: Gr. 7
24 pages
Identical to ISO 4925:2020

This document provides the specifications, requirements and test methods, for non-petroleum-based fluids used in road-vehicle hydraulic brake and clutch systems that are designed for use with such fluids and equipped with seals, cups or double-lipped type gland seals made of styrene-butadiene rubber (SBR) and ethylene-propylene elastomer (EPDM).

ZWS ISO 4926:2020
Road vehicles – Hydraulic braking systems – Non-petroleum-based reference fluid
Price Code: Gr. 2
2 pages
Identical to ISO 4926:2020

This document specifies the composition and characteristics of a reference fluid used for the compatibility testing of hydraulic braking systems and components mounted on road vehicles.

ZWS ISO 4995:2014
Hot-rolled steel sheet of structural quality
Price Code: Gr. 5
10 pages
Identical to ISO 4995:2014
Replaces Comesa ZWS HS ISO 4995:2006

This International Standard applies to hot-rolled steel sheet of structural quality in the grades listed in Table 1, usually prepared without the use of microalloying elements. The product is intended for structural purposes where particular mechanical properties are required. It is generally used in the delivered condition and is intended for bolted, riveted, or welded structures. This product is produced on a wide strip mill, not a plate mill. This International Standard does not cover steels intended for boilers or pressure vessels, steels designated as commercial quality or drawing quality (covered in ISO 3573[1]), steels to be re-rolled to cold-reduced products, or steels designated as weathering steels, having increased atmospheric corrosion resistance.

ZWS ISO 4997:2025
Cold-reduced carbon steel sheet of structural quality
Price Code: Gr. 5
8 pages
Identical to ISO 4997:2025
Replaces Comesa ZWS HS ISO 4997:2006

This document applies to cold-reduced carbon steel sheet of structural quality in grades CR220, CR250, CR280, CR320, and CH550, usually without the use of microalloying elements. The product is intended for structures that include bolting, riveting, and welding. It is generally used in the delivered condition for fabricating purposes, such as bending, forming, and welding. This document does not cover steels designated as commercial quality or drawing qualities (covered in ISO 3574), cold-reduced carbon steel sheet according to hardness requirements (covered in ISO 5954), cold-reduced steel sheet of higher strength with improved formability (covered in ISO 13887), or cold-reduced steel sheet of high tensile strength and low yield point with improved formability (covered in ISO14590).

ZWS ISO 4998:2023
Steel sheet, zinc-coated and zinc-iron alloy-coated by the continuous hot-dip process, of structural quality
Price Code: Gr. 5
14 pages
Identical to ISO 4998:2023
Replaces Comesa ZWS HS ISO 4998:2006

This document specifies the requirements for steel sheet, zinc-coated and zinc-iron alloy-coated by the continuous hot-dip process, of structural quality. The product is intended for applications where resistance to corrosion is of prime importance. The steel sheet is produced in a number of grades, coating masses, ordering conditions, and surface treatments. This document does not cover steel sheet designated as commercial quality, or drawing quality, which are covered in ISO 3575[1].

ZWS ISO 5077:1998
Textiles – Determination of dimensional change in washing and drying
Price Code Gr 2
3 pages
Identical to ISO 5077 Part 2 1984

Specifies a method for determination of the dimensional change of fabrics, garments or other textile articles when subjected to an appropriate combination of specified washing and drying procedures.

ZWS ISO 5081:1998
Textiles – Woven fabrics – Determination of breaking strength and elongation (strip method)
Price Code: Gr. 4
8 pages
Identical to ISO 5081:1977

Specifies a method known as the “strip” method, for the determination of the breaking strength and elongation at break of woven textile fabrics, (except woven elastic fabrics).

ZWS ISO 5082:1998
Textiles – Woven fabrics – Determination of breaking strength – Grab method.
Price Code; Gr. 4
7 pages
Identical to ISO 5082:1982

Specifies a method, known as the “grab” method, for the determination of the breaking strength of woven textile fabrics.

ZWS ISO/IEC 5140:2024
Information Technology — Cloud computing — Concepts for multi-cloud and the use of multiple cloud services
Price Code. Gr. 7
29 pages
Identical to ISO/IEC 5140:2024

This document specifies foundational concepts for multiple cloud services including multi-cloud, hybrid cloud, inter-cloud and federated cloud.

ZWS ISO 5145:2017
Gas cylinders - Cylinder valve outlets for gases and gas mixtures - Selection and dimensioning
Price Code. Gr. 7
32 pages
Identical to ISO 5145:2017

This document establishes practical criteria for determining valve outlet connections for gas cylinders. It applies to the selection of gas cylinder valve outlet connections and specifies the dimensions for a number of them.
This document is not applicable to connections used for cryogenic gas withdrawal or gases for breathing equipment, which are the subjects of other International Standards.
NOTE: Other safeguard provisions like labelling or colour coding are not affected by this document.

ZWS ISO 5151/Amd 1:2020
Non-ducted air conditioners and heat pumps — Testing and rating for performance
Price Code. Gr. 7
68 pages
Identical to ISO 5151/Amd 1:2020

This document specifies performance testing, the standard conditions and the test methods for determining the capacity and efficiency ratings of air-cooled air conditioners and air-to-air heat pumps. This document is applicable to the following equipment:
— non-ducted air-cooled air conditioners and non-ducted air-to-air heat pumps; or
— ducted air conditioners and/or ducted heat pumps rated at less than 8 kW and intended to operate at an external static pressure of less than 25 Pa.

ZWS ISO 5258:2022
Healthcare organization management — Pandemic response (respiratory) — Drive-through screening station
Price Code. Gr. 5
12 pages
Identical to ISO 5258:2022

This document specifies the operation of a drive-through screening station (DTSS) for mass testing as part of pandemic response management.
NOTE: COVID-19 is an exemplary disease for which such a station is developed.

ZWS ISO 5263:2001
Pulps – Laboratory wet disintergration
Price Code: Gr 3
5 pages
Identical to ISO 5263:1997

Specifies apparatus and a method for the laboratory wet disintergration of pulp.

ZWS ISO 5349.1:2001
Mechanical vibration – Measurement and evaluation of human exposure to hand-transmitted vibration
Part:1 General Requirements
Price code: Gr 7
25 pages
Identical to ISO 5349.1:2001

Specifies general requirements for measuring and reporting hand transmitted vibration exposure in three orthogonal axes. It defines a frequency weighting and band-limiting filters to allow uniform comparison of measurements.

Part 2: Practical guidance for measurement at the workplace
Price code: Gr 7
37 pages
Identical to ISO 5349.2:2001

Describes the precautions to be taken to make representative vibration measurements and to determine the daily exposure time for each operation in order to calculate the 8-h energy equivalent vibration total value (daily value exposure).

ZWS ISO 5510:1984
Animal feeding stuffs – Determination of available lysine
Price Code: Gr. 5
9 pages
Identical to ISO 5510:1984
Superseeds ZWS 542:1996

This standard specifies a method for the determination of the available lysine in animal feeding stuffs containing animal or vegetable proteins. Compared with biological determination, the method does, however, overestimate the amount of available lysine and care is necessary in interpreting the results.

ZWS ISO 5954:2014
Cold-reduced carbon steel sheet according to hardness requirements
Price Code: Gr. 5
8 pages
Identical to ISO 5954:2014
Superseeds COMESA ZWS HS ISO 5924:2006

This International Standard applies to cold-reduced carbon steel sheet and corresponding hardness requirements. It is suitable for applications where the surface is of prime importance. The following are common hardness ranges (see 6.6):

— CRH-50: Rockwell B 50 to 70;
— CRH-60: Rockwell B 60 to 80;
— CRH-70: Rockwell B 70 to 90;
— CRH-NN: Any Rockwell B range of 20 points up to and including HRB 90 maximum (designated minimum of specified range will be shown).
NOTE: By agreement between the supplier and purchaser, Rockwell ranges less than 20 points can be specified.
This International Standard does not cover commercial quality or drawing qualities (covered in ISO 3574) and cold-reduced carbon steel strip.

ZWS ISO 5983: Part 1:2005
Animal feeding stuffs - Determination of nitrogen content and calculation of crude protein content
Part 1: Kjeldahl method
Price Code: Gr. 7
9 pages
Identical to ISO 5983-1:2005
Superseeds ZWS 543:1996
This part of ISO 5983 specifies a method for the determination of the nitrogen content of animal feeding stuffs by the Kjeldahl process, and a method for the calculation of the crude protein content. The method does not measure oxidized forms of nitrogen or heterocyclic nitrogen compounds. This method does not distinguish between protein nitrogen and non protein nitrogen. If it is important to determine the content of non protein nitrogen, an appropriate method should be used.

ZWS ISO 5983: Part 2:2009
Animal feeding stuffs - Determination of nitrogen content and calculation of crude protein content
Part 2: Block digestion and steam distillation method
Price Code: Gr. 7
14 pages
Identical to ISO 5983-2:2009
Superseeds ZWS 543:1996

This part of ISO 5983 specifies a method for the determination of nitrogen content of animal feeding stuffs according to the Kjeldahl method, and a method for the calculation of the crude protein content. It concerns a semi micro rapid routine method using block digestion, copper catalyst and steam distillation into boric acid. The method is applicable to the determination of greater than 0,5 % Kjeldahl nitrogen in animal feeding stuffs, pet foods and their raw materials. The method does not measure oxidized forms of nitrogen nor heterocyclic nitrogen compounds. The method does not distinguish between protein nitrogen and non protein nitrogen.
NOTE: If it is of importance to determine the content of non protein nitrogen, an appropriate method can be used.

ZWS ISO 5984:2022
Animal feeding stuffs – Determination of crude ash
Price Code: Gr. 5
7 pages
Identical to ISO 5984:2022
Superseeds ZWS 544:1996

This document specifies a method for the determination of crude ash of animal feeding stuffs.

ZWS ISO 5517:1978
Fruits, vegetables and derived products – Determination of iron content – 1,10 – Phenanthroline photometric method
Price Code: Gr. 3
3 pages
Identical to ISO 5517:1978

Specifies a 1,10 phenanthroline photometric method for the determination of the iron content of fruits, vegetables and derived products.

ZWS ISO 5518:2007
Fruits, vegetables and derived products – Determination of benzoic acid content – Spectrometric Method
Price Code: Gr. 3
5 pages
Identical to ISO 5518:2007

Specifies a method for determining the benzoic acid content of fruits, vegetables and derived products.

ZWS ISO 5519:2008
Fruits,vegetables and derived products – Determination of sorbic acid content
Price Code: Gr. 5
9 pages
Identical to ISO 5519:2008

Specifies a method for extracting the sorbic acid present in fruits, vegetables and derived products and two techniques for determining the sorbic acid extracted.

ZWS ISO 5520:1981
Fruits, vegetables and derived products – Determination of alkalinity of total ash and of water-soluble ash
Price Code: Gr. 2
3 pages
Identical to ISO 5520:1981

Specifies a method for the determination of the alkalinity of the total ash and a method for the determination of the alakalinity of the water-soluble ash from fruits, vegetables and derived products.

ZWS ISO 5522:1981
Fruits, vegetables and derived products – Determination of total sulphur dioxide content
Price Code: Gr.2
7 pages
Identical to ISO 5522:1981

Specifies a method for the determination of the total sulphur dioxide content of fruits, vegetables and derived products, whatever the sulphur dioxide content.

ZWS ISO 5534/IDF 4:2004
Cheese and processed cheese — Determination of the total solids content (Reference method)
Price Code: Gr 4
7 pages
Identical to ISO 5534:2004

This International Standard specifies the reference method for the determination of the total solids content of cheese and processed cheese.
NOTE: This method may not be applicable to processed cheese preparations as defined in the FAO/WHO Code of Principles Standard A 8.

ZWS ISO 5536:2009
Milk fat products – Determination of water content – Karl Fischer method
Price Code: Gr.3
8 pages
Identical to ISO 5536:2009

Specifies a method for the determination of the water content of milk fat products by the Karl Fischer (KF) method.The method is applicable tobutteroil(anhydrous butteroil,anhydrous butterfat,anhydrous milk fat) with a water content not exceeding 1,0% mass faction.

ZWS ISO 5542:2002
Milk – Determination of protein content – Amido black dye binding method (Routine method)
Price Code: Gr 3
5 pages
Identical to ISO 5542:1984

Describes the amido black dye-binding method used as routine method for the determination of the protein content of milk.

ZWS ISO 5544:2008
Caseins – Determination of fixed ash (Reference method)
Price Code: Gr. 4
5 pages
Identical to ISO 5544:2008

Specifies a reference method for the determination of the fixed ash of caseins, as a percentage by mass, obtained by acid precipitation or lactic fermentation, of ammonium caseinates, of their mixtures with rennet casein and with caseinates, and of caseins of unknown type.

ZWS ISO 5545:2008
Rennet caseins and caseinates – Determination of ash (Reference method)
Price Code: Gr 3
5 pages
Identical to ISO 5545:2008

Specifies a reference method for the determination of the ash of caseins obtained by rennet precipitation and of caseinates, with the exception of ammonium caseinate.

ZWS ISO 5547:2009
Caseins – Determination of free acidity (Reference Method)
Price Code: Gr 3
4 pages
Identical to ISO 5547:2008

Specifies a reference method for the determination of the free acidity of caseins obtained by acid precipitation or lactic fermentation and of rennet caseins

ZWS ISO 5550:2006
Cheese – Determination of fat content butyrometer for van gulik method
Price Code: Gr 5
8 pages
Identical to ISO 5550:2006

Specifies the reference method for the determination of the moisture content of all types of caseins and casinates

ZWS ISO 5554:1998
Meat and meat products – Determination of starch content (reference method)
Price Code: Gr 3
5 pages
Identical to ISO 5554:1978

Specifies a reference method for the determination of the starch content of meat products.

ZWS ISO 5576:1997
Non-destructive testing – Industrial radiographic illuminators – Minimum requirements
Price Code: Gr 5
7 pages
Identical to ISO 5576:1997

The standard defines terms used in industrial radiographic testing

ZWS ISO 5579:2013
Non-Destructive testing – radiographic testing of metallic materials using film and X – or gamma rays – Basic Rules
Price code: Gr 5
11 pages
Identical to ISO 5579:2013

Outlines the general rules for industrial X – and gamma-radiology for flaw-detection purposes, using film techniques, applicable to the inspection of metallic products and materials

ZWS ISO 5580:1985
Non-Destructive testing – Industrial radiographic illuminators – minimum requirements
Price code: Gr 4
4 pages
Identical to ISO 5580:1985

Specifies the minimumrequirements for industrial illuminators used for viewing radiographs.

ZWS ISO 5665:2024
Consumer incident investigation — Requirements and guidance
Price code: Gr. 7
34 pages
Identical to ISO 5665:2024

This document provides general requirements and recommendations on the principles, procedures, and methods for investigating incidents where there have been injuries, illnesses, damage to health, fatalities to consumers, damage to property or environmental damage related to the use of products, services or facilities by consumers.
NOTE 1: These incidents can occur anywhere.
This document is applicable to any person or any organization of any size, whether it is public, private or community-based.
NOTE2: This document is not limited to incidents while products, services or facilities are in use, but also includes incidents that occur when products, services or facilities are not in use, such as during transportation or storage by consumers.

ZWS ISO 5725:2003
Accuracy (trueness and precision) of measurement methods and results
Part 1: General principles and definitions
Price Code: Gr 5
17 pages
Identical to ISO 5725-1:1994

Defines values which describe in quantitative terms, the ability of a measurement method to give a correct result (trueness) or to replicate a given result(precision).

Part 2: Basic method for the determination of repeatability and reproducibility of standard measurement method.
Price Code: Gr 7
42 pages
Identical to ISO 5725-2:1994

Amplifies general principles to be observed in designing experiments for the numerical estimation of the precision of measurement methods by means of a collaborative interlaboratory experiment.

Part 3: Intermediate measures of the precision of a standard measurement method
Price Code: Gr 6
25 pages
Identical to ISO 5725-3:1994

Specifies four intermediate precision measures due to changes in observation conditions (time,calibration,operator and equipment) within a laboratory.

Part 4: Basic methods for the determination of the trueness of a standard measurement method
Price Code: Gr 6
23 pages
Identical to ISO 5725-4:1994

Provides basic methods for estimating the bias of a measurement method and the laboratory bias when a measurement method is applied.

Part 5: Alternative methods for the determination of the precision of a standard measurement method.
Price Code: Gr 7
56 pages
Identical to ISO 5725-5:1998

Provides detailed description of alternatives to the basic method of determining the repeatability and reproducibility standard deviations of a standard measurement method, namely the splity-level design and a design for heterogeneous materials.

Part 6: Use in practice of accuracy values
Price Code: Gr 7
41 pages
Identical to ISO 5725-6 1994

Gives some indications of the way in which accuracy data can be used in practical situations.

ZWS ISO 5739:2005
Caseins and Caseinates – Determination of contents of scorched particles and of extraneous matter.
Price Code: Gr 5
12 pages
Identical to ISO 5739:2003

Specifies a method for the determination of the contents of scotched particles and of extraneous matter in caseins and caseinates.

ZWS ISO 5815: Part 1:2019
Water quality — Determination of biochemical oxygen demand after n days (BOD_n)
Part 1:2019: Dilution and seeding method with allylthiourea addition
Price Code: Gr 6
22 pages
Identical to ISO 5815-1:2019
Supersedes ZWS 496:1995

This document specifies the determination of the biochemical oxygen demand of waters by dilution and seeding with suppression of nitrification after 5 d or 7 d incubation time. It is applicable to all waters having biochemical oxygen demands usually between 1 mg/l and 6 000 mg/l. It applies particularly to waste waters but also suits for the analysis of natural waters. For biochemical oxygen demands greater than 6 000 mg/l of oxygen, the method is still applicable, but special care is needed taking into consideration the representativeness of subsampling for preparation of the dilution steps. The results obtained are the product of a combination of biochemical and chemical reactions in presence of living matter which behaves only with occasional reproducibility. The results do not have the rigorous and unambiguous character of those resulting from, for example, a single, well-defined, chemical process. Nevertheless, the results provide an indication from which the quality of waters can be estimated.

ZWS ISO 5815: Part 2:2003
Water quality – Determination of biochemical oxygen demand after n days (BODn)
Part 2: Method for undiluted samples
Price Code: Gr 5
13 pages
Identical to ISO 5815-2:2003

This part of ISO 5815 specifies determination of the biochemical oxygen demand (BOD) of waters of undiluted samples. It is applicable to all waters having biochemical oxygen demands greater than or equal to 0,5 mg/l of oxygen (the limit of determination) and not exceeding 6 mg/l of oxygen. The results obtained are the product of a combination of biochemical and chemical reactions. They do not have the rigorous and unambiguous character of those resulting from, for example, a single, well-defined, chemical process. Nevertheless, they provide an indication from which the quality of waters can be estimated. The test can be influenced by the presence of various substances. Those which are toxic to microorganisms, for example bactericides, toxic metals or free chlorine, inhibit biochemical oxidation. The presence of algae or nitrifying microorganisms can produce artificially high results. In these situations a modification of the method may be necessary.
Annex A describes alternative incubation periods.
Annex B describes procedures for modification of the method by addition of seeding material, salts, inhibition of nitrification by allylthiourea (ATU) addition, neutralization, homogenization and/or filtration. These modifications may be found necessary for specific evaluations of the water quality of receiving waters.
Annex C provides precision data.

ZWS ISO 6009:2016
Hypodermic needles for single use – Colour coding for identification
Price Code: Gr 4
6 pages
Identical to ISO 6009: 2016

Establishes a colour code for the identification of single-use hypodermic needles of designated metric size in the range 0,18mm (34 gauge) to 3,4mm (10 gauge).It applies to regular-walled, thin walled and extra-thin-walled and ultra-thin needles and to opaque and translucent colours

ZWS ISO 6078:2003
Black tea – vocabulary
Price Code: Gr 6
22 pages
Identical to ISO 6078:1982

Provides a list of terms and definitions, applicable to the techniques of processing and assessing black tea for commerce.

ZWS ISO 6079:2003
Instant tea in solid form
Price Code: Gr 2
2 pages
Identical to ISO6079:1990

Specifies requirements for instant tea in solid form.

ZWS ISO 6092:1980
Dried milk – Determination of titratable acidity (Routine method)
Price Code: Gr
3 pages
Identical to ISO6092:1980

Specifies a routine method for the determination of the titratable acidity of all types of dried milk.

ZWS ISO 6091/IDF 86:2010
Dried milk – Determination of titratable acidity (Reference method)
Price Code: Gr 3
5 pages
Identical to ISO 6091:2010

This International Standard specifies a reference method for the determination of the titratable acidity of all types of dried milk.

ZWS ISO 6166:2013
Securities and related financial instruments — International securities identification numbering system (ISIN)
Price Code: Gr 4
11 pages
Identical to ISO 6166:2013

This International Standard provides a uniform structure for the identification of fungible and non-fungible securities and financial instruments (see Annex A) using a unique identification number and associated minimum descriptive data (see Annex B).

ZWS ISO 6222:1999
Water quality — Enumeration of culturable micro-organisms — Colony count by inoculation in a nutrient agar culture medium
Price Code: Gr 4
3 pages
Identical to ISO 6222:1999

This European Standard specifies a method for the enumeration of culturable micro-organisms in water by counting the colonies formed in a nutrient agar culture medium after aerobic incubation at 36 °C and 22 °C. The method is intended to measure the operational efficiency of the treatment process of public drinking water supplies and for general application to all types of water. It is particularly applicable to the examination of water intended for human consumption, including water in closed containers and to natural mineral waters.

ZWS ISO 6252:2000
Plastics – Determination of environmental stress cracking (ESC)- Constant-tensile-stress-method.
Price Code: Gr 4
8 pages
Identical to ISO 6252:1992

Specifies methods for the determination of environmental stress cracking (ESC) of plastics when they are subjected to a constant tensile force in the presence of chemical agents.

ZWS ISO 6306:2020
Chemical analysis of steel - Order of listing elements in steel standards
Price Code: Gr 7
3 pages
Identical to ISO 6306:2020
Replaces COMESA ZWS HS ISO 6306:2006

This document specifies an order for listing elements within the chemical composition of steels and most other iron-based alloys, excluding foundry irons.

ZWS ISO 6316:2012
Hot-rolled steel strip of structural quality
Price Code: Gr 7
11 pages
Identical to ISO 6316:2012
Replaces COMESA ZWS HS ISO 6316:2006

This International Standard specifies requirements for hot-rolled steel strip of structural quality in the grades and classes listed in Table 1, usually without the use of microalloying elements. This product is intended for structural purposes where particular mechanical properties are required. It is generally used in the delivered condition and is intended for bolted, riveted or welded structures. It is commonly rolled on a narrow strip mill.
This International Standard does not cover steels designated as commercial quality or drawing quality (covered in ISO 6317) or steels intended for boilers or pressure vessels, or steels to be rerolled to cold-reduced products, or steels designated as weathering steels, having increased atmospheric corrosion resistance.

ZWS ISO 6460:1999
Road vehicles – Measurement method of gaseous pollutants emitted by motorcycles equipped with a controlled ignition engine.
Price Code: Gr 5
14 pages
Identical to ISO 6460:1981

Specifies methods of measurement of gaseous pollutants emitted by motorcycles.

ZWS ISO 6506:1995
Metallic materials – Hardness test Brinell test
Price Code: Gr 4
10 pages
Identical to ISO 6506:1981

Specifies the method for the Brinell hardness test for metallic materials.

ZWS ISO 6507:1996
Metallic materials – Hardness test – Vickers test
Part 1: HV 5 to HV 100
Price Code: Gr 6
19 pages
Identical to ISO 6507 Part 1982

Specifies the method of Vickers hardness test HV 5 to HV 100 (test forces from 49.03to 980.7N) for metallic materials.

Part 2: HV 0,2 to less than HV 5
Price Code: Gr 6
19 pages
Identical to ISO 6507: Part 2: 1983

Specifies the method of Vickers hardness test HV 5 (test forces from 1.961 to less than 49.03 N) for metallic materials.

Part 3: Less than HV 0,2
Price Code: Gr 4
10 pages
Identical to ISO 6507:Part 3:1989

Specifies a method of determining a Vickers hardness of less than HV 0,2 (test force less than 1,961N) for metallic materials.

ZWS ISO 6508:2001
Metallic materials – Rockwell hardness test
Part 1: Test method (Scales A, B, C, D, E, F, G, H, K, N, T)
Price Code: Gr 5
15 pages
Replaces SZS ISO 6508:1996
Identical to ISO 6508-1:1999

Specifies the method for Rockwell and Rockwell superficial hardness tests for metallic material.

Part 2: Verification and calibration of testing machines (Scale A, B, C, D, E, F, G, H, K, N, T)
Price Code: Gr 4
10 pages
Identical to ISO6508-2 1999

Specifies a method of verification of testing machines for determining Rockwell hardness.

Part 3: Calibration of reference blocks (Scales A, B, C, D, E, F, G, H, K, N, T)
Price Code: Gr4
7 pages
Identical to ISO 6508-3 1999

Specifies a method for the calibration of reference blocks to be used for the indirect verification of Rockwell hardness testing machines as specified in ZWS ISO 6508 Part 2.

ZWS ISO 6540:2021
Maize- Determination of moisture content (on milled grains and on whole grains)
Price Code: Gr 7
25 pages
Identical to ISO 6540:2021

This document specifies two methods:
a reference method for the determination of the moisture content of maize grains and ground whole maize, groats, grits and maize flour, see Clause 4; a routine method for the evaluation of the moisture content of maize in whole grains, see Clause 5. The latter is not suitable for use for experts' reports, or for calibration or checking of humidity meters, because of its significant bias to the reference method (see Table B.3).

ZWS ISO 6579: Part 1:2017/Amd.1:2020
Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella
Part 1: Detection of Salmonella spp.
Price Code: Gr. 8
46 pages
Identical to ISO 6579-1:2017
Replaces ISO 6785

This document specifies a horizontal method for the detection of Salmonella. It is applicable to the following:
—products intended for human consumption and the feeding of animals;
—environmental samples in the area of food production and food handling;
—samples from the primary production stage such as animal faeces, dust, and swabs. With this horizontal method, most of the Salmonella serovars are intended to be detected. For the detection of some specific serovars, additional culture steps may be needed. For Salmonella Typhi and Salmonella Paratyphi, the procedure is described in Annex D. The selective enrichment medium modified semi-solid Rappaport-Vassiliadis (MSRV) agar is intended for the detection of motile Salmonella and is not appropriate for the detection of non-motile Salmonella strains.

ZWS ISO 6579: Part 4:2025
Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella
Part 4: Identification of monophasic Salmonella Typhimurium (1,4,[5],12: i:-) by polymerase chain reaction (PCR)
Price Code: Gr. 7
35 pages
Identical to ISO 6579-4:2025

This document specifies a horizontal in vitro method for the molecular identification and differentiation of the monophasic variant of Salmonella enterica subsp. enterica serovar Typhimurium (1,4,[5],12:i:-) lacking the second H phase H:1,2, starting from isolates. The method detects specific DNA sequences of an intergenic region of the first H phase flagellin cluster for identification of Salmonella enterica subsp. enterica serovar Typhimurium (further called Salmonella Typhimurium) and specific DNA sequences of genes associated with second H phase flagellar antigen expression.
The method is applicable for:
— differentiation of the isolate under analysis between monophasic Salmonella Typhimurium and the monophasic variant of another Salmonella non-Typhimurium serovar that has the same antigenic formula;
— identification of the isolate under analysis being either monophasic Salmonella Typhimurium
or (biphasic) Salmonella Typhimurium.
This document is applicable for the analysis of a pure culture belonging to the genus Salmonella, isolated from:
— roducts intended for human consumption;
— products intended for animal feeding;
— environmental samples in the area of food and feed production and handling;
— samples from the primary production stage.
This document can also be applied in other domains for identification of monophasic Salmonella Typhimurium (e.g. environmental, human health, animal health).
NOTE: This method has been validated in a method evaluation study and in an interlaboratory study with a large set of different strains (target and non-target strains), isolated from different sources (food products, animals, animal feed, primary production samples and humans). For detailed information on the validation, see Annex E.

ZWS ISO 6591:1996
Packaging –Sacks- Description and method of measurement Part 2: Empty sacks made from thermoplastic flexible film.
Price Code: Gr 4
11 pages
Identical to ISO 6591 Part 2 1985

Specifies a method for measuring and expressing the dimensions of empty sacks of thermoplastic flexible film. It is primarily intended for application to plastic sacks as specified in ISO 6590: Part 2.

ZWS ISO 6610:2001
Milk and milk products – Enumeration of colony- forming units of micro-organisms-Colony count technique at 30^0C
Price Code: Gr 2
5 pages
Identical to ISO 6610:2001

Specifies a method for the enumeration of colony forming units (CFU)of micro-organisms in milk and milk products by means of a colony-count technique at 30^0.

ZWS ISO 6509 Part 1:2014
Test Methods
Corrosion Of Metals and alloys- determination of Dezincification resistance Of copper alloys with Zinc
Price Code: Gr 4
7 pages

This part of ISO 6509 specifies a method for the determination of dezincification depth of copper alloys with a mass fraction of zinc more than 15%.

ZWS ISO 6611:2005
Milk and milk products – Enumeration of colony- forming units of yeasts and/ or moulds – Colony-count technique at 25^0C.
Price Code : Gr 3
6 pages
Identical to ISO 6611 1992

Specifies a method for the detection and enumeration of colony-forming units (CFU) of viable yeasts and or moulds in milk and milk products by means of the colony-count technique at 25^0C.

ZWS ISO 6730:2006
Milk – Enumeration of colony – forming units of psychrotrophic micro-organisms – Colony- count technique 6.5^0C
Price Code: Gr 4
8 pages
Identical to ISO 6730:2005

Specifies a method for the enumeration of colony forming units (CFU) of psychrotrophic microorganisms in raw and heat – treated milk by means of the colony-count technique at 6.5^0C.

ZWS ISO 6731/IDF 21:2010
Milk, cream and evaporated milk — Determination of total solids content (Reference method)
Price Code : Gr 4
5 pages
Identical to ISO 6731:2010

This International Standard specifies the reference method for the determination of the total solids content of milk, cream and evaporated milk.

ZWS ISO 6734:2005
Sweetened condensed milk – Determination of total solids content (Reference method).
Price Code: Gr 3
3 pages

Specifies the reference method for the determination of the total solids content of solids content of sweetened condensed milk.

ZWS ISO 6767:2000
Ambient air – Determination of the mass concentration of sulphur dioxide – Tetrachloromercurate (TCM) pararosanilline method.
Price Code: Gr 4
10 pages
Identical to ISO 6767:1990

Specifies a spectrophotmetric method, known as the tetrachlomercurate method.

ZWS ISO 6768:2000
Ambient air – Determination of mass concentration of nitrogen dioxide – modified griess-saltzman method.
Price Code: Gr 4
10 pages
Identical to ISO 6768:1998

Specifies a modified Griess-Saitzman method for the determination of the mass concentration of nitrogen dioxide present in ambient air.

ZWS ISO 6770:2003
Instant tea – Determination of free-flow and compacted bulk densities
Price code: Gr 4
6 pages
Identical to ISO 6770:1982

Specifies two methods for the determination of the bulk density of instant tea.

ZWS ISO 6780:2000
General – purpose flat pallets for through transit of goods principal dimension and tolerances.
Price Code: Gr 4
7 pages
Identical to ISO 6780:1994

Specifies overall dimensions for single-deck and double –deck nonreversible pallets for through transit of goods, and dimensions related of their handling by pallet trucks, fork lift trucks and other appropriate handling equipment.

ZWS ISO 6835:1981
Surface active agents – Washing Powders –
Determination of total boron content – Titrimetric Method
Price Code: Gr 4
5 pages
Identical to ISO 6835:1981

Specifies a titrimetric method for the rapid determination of the total boron content of commercial washing powders, without interference from other compounds usually present. The method may be used in the presence of sequestering agents.

ZWS ISO 6855:1999
Road vehicles – Measurement methods for gaseous pollutants emitted by mopeds equipped with a controlled ignition engine.
Price Code: Gr 5
13 pages
Identical to ISO 6855:1983

Specifies the measurement methods for gaseous pollutants emitted by mopeds.

ZWS ISO 6879:2000
Air quality – Perfomance characteristics and related concepts for air quality measuring methods.
Price Code: Gr 3
6 pages
Identical to ISO 6879:1995

Defines terms and performance characteristics related to air quality measuring method.

ZWS ISO 6887: Part 1:2017/Amd 1:2024
Microbiology of the food chain — Preparation of test samples, initial suspension and decimal dilutions for microbiological examination
Part 1: General rules for the preparation of the initial suspension and decimal dilutions
Price Code: Gr 10
25 pages
Identical to ISO 6887-1:2017

This document defines general rules for the aerobic preparation of the initial suspension and of dilutions for microbiological examinations of products intended for human or animal consumption.
This document is applicable to the general case and other parts apply to specific groups of products as mentioned in the foreword. Some aspects might also be applicable to molecular methods where matrices can be associated with inhibition of the PCR steps and consequently affect the test result. This document excludes preparation of samples for both enumeration and detection test methods where preparation instructions are detailed in specific International Standards.

ZWS ISO 6887: Part 4:2017
Microbiology of the food chain — Preparation of test samples, initial suspension and decimal dilutions for microbiological examination
Part 4: Specific rules for the preparation of miscellaneous products
Price Code: Gr 6
25 pages
Identical to ISO 6887-4:2017

This document specifies rules for the preparation of samples and dilutions for the microbiological examination of specific food products not covered in other parts of ISO 6887, which deal with more general categories. This document covers a wide range of miscellaneous products, but does not include new products brought on to the market after publication.
ISO 6887 1 defines the general rules for the preparation of the initial suspension and dilutions for microbiological examination.
This document excludes preparation of samples for both enumeration and detection test methods when preparation details are specified in the relevant International Standards.
This document is applicable to the following products:
—acidic (low pH) products;
—hard and dry products;
—dehydrated, freeze-dried and other low aw products (including those with inhibitory properties);
—flours, whole cereal grains, cereal by-products;
—animal feed, cattle cake, kibbles and pet chews;
—gelatine (powdered and leaf);
—margarines, spreads and non-dairy products with added water;
—eggs and egg products;
—bakery goods, pastries and cakes;
—fresh fruit and vegetables;
—fermented products and other products containing viable microorganisms;

—alcoholic and non-alcoholic beverages;
—alternative protein products.

ZWS ISO 6888: Part 1:2021/Amd 1:2023
Microbiology of the food chain — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species)
Part 1: Method using Baird-Parker agar medium
Price Code: Gr 6
20 pages
Identical to ISO 6888-1:2021/Amd 1:2023

This document specifies a horizontal method for the enumeration of coagulase-positive staphylococci by counting the colonies obtained on a solid medium (Baird-Parker medium)[10] after aerobic incubation at 34 °C to 38 °C and coagulase confirmation.
This document is applicable to:
—products intended for human consumption;
—products intended for animal feeding;
—environmental samples in the area of food and feed production, handling, and
—samples from the primary production stage.
This horizontal method was originally developed for the examination of all samples belonging to the food chain. Because of the large variety of products in the food chain, it is possible that this horizontal method is not appropriate in every detail for all products. Nevertheless, it is expected that the required modifications are minimized so that they do not result in a significant deviation from this horizontal method. Based on the information available at the time of publication of this document, this method is not considered to be (fully) suited to the examination of fermented products or other products containing technological flora based on Staphylococcus spp (e.g. S. xylosus) (such as cheeses made from raw milk and certain raw meat products) likely to be contaminated by:
—staphylococci forming atypical colonies on a Baird-Parker agar medium;
—background flora that can obscure the colonies being sought.
Nevertheless, both this document and ISO 6888-2 are given equivalent status.

ZWS ISO 6892:1996
Metallic materials – Tensile testing
Price Code: Gr. 7
37 pages
Identical to ISO 6892:1984

Specifies the method of tensile testing of metallic materials and defines the mechanical properties which can be determined thereby.

ZWS ISO 6935: Part 3:1991
Steel for the prestressing of concrete
Part 3: Quenched and tempered wire
Price Code: Gr. 5
15 pages
Identical to ISO 6935-3:1991

This part of ISO 6934 specifies requirements for round wire made of quenched and tempered high tensile steel, with a surface which is either plain, ribbed, grooved or indented. The product is delivered in coils, according to the general requirements specified in ISO 6934-1.

ZWS ISO 6940:2011
Textile fabrics – Burning behavior – Determination of ease of ignition of vertically oriented specimens
Price Code: Gr. 5
14 pages
Identical to ISO 6940:2004

Specifies a method for the measurement of ease of ignition of vertically oriented textile fabrics and industrial products in the form of single or multi-component fabrics when subjected to a small defined flame.

ZWS ISO 6941:2011
Textile fabrics – Burning behavior – Measurement of flame spread properties of vertically oriented specimens
Price Code: Gr. 5
13 pages
Identical to ISO 6941:2003

Specifies a method for the measurement of flame spread times of vertically oriented textile fabrics and industrial products in the form of single or multi-component fabrics when subjected to a small defined flame.

ZWS ISO 6970:1999
Motorcycle and mopeds – Pollution tests – Chassis dynamometer bench.
Price Code: Gr 4
9 pages
Identical to ISO 6970:1994

Specifies the performance of a universal chassis dynamometer bench and a simplified bench, with a single roller, for laboratory tests of mopeds and motorcycles.

ZWS ISO 7010:2019/Amd 2:2020
Graphical symbols – Safety colors and safety signs
Price Code: Gr.12
302 pages
Identical to ISO 7010:2019

This document prescribes safety signs for the purposes of accident prevention, fire protection, health hazard information and emergency evacuation. The shape and colour of each safety sign are according to ISO 3864 1 and the design of the graphical symbols is according to ISO 3864 3. This document is applicable to all locations where safety issues related to people need to be addressed. However, it is not applicable to the signalling used for guiding rail, road, river, maritime and air traffic and, in general, to those sectors subject to a regulation which may differ with regard to certain points of this document and of the ISO 3864 series. This document specifies the safety sign originals that can be scaled for reproduction and application purposes.

ZWS ISO 7010:2019/Amd 7:2023
Graphical symbols — Safety colours and safety signs — Registered safety signs
Price Code: Gr.12
302 pages
Identical to ISO 7010:2019

This document prescribes safety signs for the purposes of accident prevention, fire protection, health hazard information and emergency evacuation. The shape and colour of each safety sign are according to ISO 3864 1 and the design of the graphical symbols is according to ISO 3864 3. This document is applicable to all locations where safety issues related to people need to be addressed. However, it is not applicable to the signalling used for guiding rail, road, river, maritime and air traffic and, in general, to those sectors subject to a regulation which may differ with regard to certain points of this document and of the ISO 3864 series. This document specifies the safety sign originals that can be scaled for reproduction and application purposes.

ZWS ISO 7010:2019: AMD 143:2024
Graphical symbols - Safety colours and safety signs - Registered safety signs
Amendment 143: Safety sign E072: Safe anchorage point
Price Code: Gr.12
301 pages
Identical to ISO 7010:2019: AMD 143:2024

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ZWS ISO 7010:2019: AMD 144:2024
Graphical symbols - Safety colours and safety signs -Registered safety signs
Amendment 144: Safety sign E073: Emergency descent device
Price Code: Gr.12
301 pages
Identical to ISO 7010:2019: AMD 144:2024

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ZWS ISO 7010:2019: AMD 145:2024
Graphical symbols - Safety colours and safety signs -Registered safety signs
Amendment 145: Safety sign E074: Emergency rations
Price Code: Gr.12
301 pages
Identical to ISO 7010:2019: AMD 145:2024

This document prescribes safety signs for the purposes of accident prevention, fire protection, health hazard information and emergency evacuation. The shape and colour of each safety sign are according to ISO 3864 1 and the design of the graphical symbols is according to ISO 3864 3. This document is applicable to all locations where safety issues related to people need to be addressed. However, it is not applicable to the signalling used for guiding rail, road, river, maritime and air traffic and, in general, to those sectors subject to a regulation which may differ with regard to certain points of this document and of the ISO 3864 series. This document specifies the safety sign originals that can be scaled for reproduction and application purposes.

ZWS ISO 7010:2019: AMD 146:2024
Graphical symbols -Safety colours and safety signs -Registered safety signs
Amendment 146: Safety sign E075: Lifeguard
Price Code: Gr.12
301 pages
Identical to ISO 7010:2019: AMD 146:2024

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ZWS ISO 7010:2019: AMD 147:2024
Graphical symbols -Safety colours and safety signs - Registered safety signs
Amendment 147: Safety sign E076: Evacuation equipment
Price Code: Gr.12
301 pages
Identical to ISO 7010:2019: AMD 147:2024

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ZWS ISO 7010:2019/AMD 148:2024
Graphical symbols -Safety colours and safety signs -Registered safety signs
Amendment 148: Safety sign M068: Lock mechanical moving parts
Price Code: Gr.12
301 pages
Identical to ISO 7010:2019: AMD 148:2024

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ZWS ISO 7010:2019/Amd 149:2024
Graphical symbols - Safety colours and safety signs -Registered safety signs
Amendment 149: Safety sign M069: Tools must be tethered
Price Code: Gr.12
301 pages
Identical to ISO 7010:2019: AMD 149:2024

This document prescribes safety signs for the purposes of accident prevention, fire protection, health hazard information and emergency evacuation. The shape and colour of each safety sign are according to ISO 3864 1 and the design of the graphical symbols is according to ISO 3864 3. This document is applicable to all locations where safety issues related to people need to be addressed. However, it is not applicable to the signalling used for guiding rail, road, river, maritime and air traffic and, in general, to those sectors

subject to a regulation which may differ with regard to certain points of this document and of the ISO 3864 series. This document specifies the safety sign originals that can be scaled for reproduction and application purposes.

ZWS ISO 7023:1996
Packaging – Sacks – Method of sampling empty sacks for testing
Price Code: Gr 4
8 pages
Identical to ISO 7023:1983

Specifies a method of obtaining a representative sample of empty sacks for testing.

ZWS ISO 7027: Part 1: 2016
Water quality — Determination of turbidity
Part 1: Quantitative methods
Price Code: Gr 5
9 pages
Identical to ISO 7027-1:2016
Supersedes ZWS 478:1995

This part of ISO 7027 specifies two quantitative methods using optical turbidimeters or nephelometers for the determination of turbidity of water:
a) nephelometry, procedure for measurement of diffuse radiation, applicable to water of low turbidity (for example drinking water);
b) turbidimetry, procedure for measurement of the attenuation of a radiant flux, more applicable to highly turbid waters (for example waste waters or other cloudy waters). Turbidities measured according to the first method are presented as nephelometric turbidity units (NTU). The results typically range between <0,05 NTU and 400 NTU. Depending on the instrument design, it can also be applicable to waters of higher turbidity. There is numerical equivalence of the units NTU and formazin nephelometric unit (FNU). Turbidity measured by the second method is expressed in formazin attenuation units (FAU), results typically range between 40 FAU and 4 000 FAU.

ZWS ISO 7027: Part 2:2019
Water quality — Determination of turbidity
Part 2: 2019: Semi-quantitative methods for the assessment of transparency of waters
Price Code: Gr 5
11 pages
Identical to ISO 7027-2:2019
Supersedes ZWS 478:1995

This part of ISO 7027 specifies two quantitative methods using optical turbidimeters or nephelometers for the determination of turbidity of water

ZWS ISO 7101:2023
Healthcare organization management — Management systems for quality in healthcare organizations — Requirements
Price Code: Gr. 7
38 pages
Identical to ISO 7101:2023

The purpose of this document is to provide organizations with requirements to deliver high-quality healthcare and specifies requirements for management systems for quality in healthcare organizations when an organization desires to:
a) demonstrate its ability to consistently meet service user, stakeholder, and applicable statutory and regulatory requirements;
b) enhance service user experience during the continuum of care and continually improve healthcare quality; and
c) create and maintain processes that ensure timely, safe, effective, efficient, equitable, and people-centred care. The requirements of this document are based on recognized best practices and are intended to be applicable to any organization providing healthcare services, regardless of its type, size, or the services it provides.

ZWS ISO 7168:1999
Air quality – Exchange of data
Part 1: General data format
Price Code: Gr 8
49 pages
Identical to ISO 7168 part 1 1999

Specifies a general format for the exchange of air quality data and related information.

Part 2: Condensed data format
Price Code: Gr 6
23 pages
Identical to ISO 7168 Part 2 1999

Specifies a condensed data format for presentation of air quality data.

ZWS ISO 7176: Part 1:2014
Wheelchairs
Part 1:2014: Determination of static stability
Price Code: Gr 6
27 pages
Identical to ISO 7176-1:2014

This part of ISO 7176 specifies test methods for determining the static stability of wheelchairs. It is applicable to manual and electrically powered wheelchairs, including scooters, with a maximum speed not greater than 15 km/h, intended to provide indoor and/or outdoor mobility for one disabled person whose mass is within the range represented by ISO 7176 11. For active stability-controlled wheelchairs, this part of ISO 7176 applies to the device in a stable, parked state. This part of ISO 7176 provides a method for the measurement of the tipping angles (either wheelchair tipping angle or anti-tip device tipping angle), but this method is not applicable to wheelchairs with lateral anti-tip devices and does not consider sliding on the ground. This part of ISO 7176 also includes requirements for test reports and information disclosure.

ZWS ISO 7176: Part 2:2017
Wheelchairs
Part 2:2017: Determination of dynamic stability of electrically powered wheelchairs
Price Code: Gr 6
25 pages
Identical to ISO 7176-2:2017

This document specifies test methods for determining the dynamic stability of electrically powered wheelchairs. This document is applicable to electrically powered wheelchairs, including scooters, with a maximum nominal speed not exceeding 15 km/h, intended to carry one person. This document is not applicable to manual wheelchairs with add-on power kits used for, or to assist, propulsion.

ZWS ISO 7176: Part 3:2012
Wheelchairs
Part 3:2012: Determination of effectiveness of brakes
Price Code: Gr 5
15 pages
Identical to ISO 7176-3:2012

This part of ISO 7176 specifies test methods for the measurement of the effectiveness of brakes of manual wheelchairs and electrically powered wheelchairs, including scooters, intended to carry one person, with a maximum speed not exceeding 15 km/h. It also specifies disclosure requirements for the manufacturer.

ZWS ISO 7176: Part 4:2008
Wheelchairs
Part 4:2008: Energy consumption of electric wheelchairs and scooters for determination of theoretical distance range
Price Code: Gr 3
8 pages
Identical to ISO 7176-4:2008

This part of ISO 7176 specifies methods for determining the theoretical distance range of electrically powered wheelchairs, including scooters, using measurements of energy consumed while driving and the nominal energy capacity of the wheelchair's battery set. It is applicable to electrically powered wheelchairs with a maximum nominal speed no greater than 15 km/h, intended to provide indoor and/or outdoor mobility for one disabled person whose mass is within the range represented by ISO 7176-11. This part of ISO 7176 also includes requirements for test reports and information disclosure.

ZWS ISO 7176: Part 5:2008
Wheelchairs
Part 5:2008: Determination of dimensions, mass and manoeuvring space
Price Code: Gr 7
78 pages
Identical to ISO 7176-5:2008

This part of ISO 7176 specifies methods for the determination of wheelchair dimensions and mass. This includes specific methods for the determination of outside dimensions when the wheelchair is occupied by a reference occupant and the required manoeuvring space needed for wheelchair manoeuvres commonly carried out in daily life. This part of ISO 7176 specifies requirements for the disclosure of the dimensions and masses and contains five informative annexes.
Annex A specifies methods for the determination of technical dimensions that can be important to the performance of the wheelchair.
Annex B provides detailed information about pivot width and reversing width.
Annex C provides detailed information about the turning diameter.
Annex D provides details on determining the wheelchair longitudinal axis and wheelchair centre-point.
Annex E provides technical guidelines and recommendations for many of the measurements specified to facilitate improved understanding, design and construction of wheelchairs.
This part of ISO 7176 is applicable to manual wheelchairs and electrically powered wheelchairs (including scooters).

ZWS ISO 7176: Part 6:2018
Wheelchairs
Part 6:2018: Determination of maximum speed of electrically powered wheelchairs
Price Code: Gr 2
4 pages
Identical to ISO 7176-6:2018

This part of ISO 7176 specifies methods for the determination of wheelchair dimensions and mass. This includes specific methods for the determination of outside dimensions when the wheelchair is occupied by a reference occupant and the required manoeuvring space needed for wheelchair manoeuvres commonly carried out in daily life. This part of ISO 7176 specifies requirements for the disclosure of the dimensions and masses and contains five informative annexes.

ZWS ISO 7176: Part 7:1998
Wheelchairs
Part 7:1998: Measurement of seating and wheel dimensions
Price Code: Gr 7
48 pages
Identical to ISO 7176-7:1998

This part of ISO 7176 specifies a method for measuring the seating and wheel dimensions of wheelchairs. It is applicable to wheelchairs and vehicles intended to provide indoor and outdoor mobility at speed up to 15 km/h for people with disabilities whose mass does not exceed 120 kg, including the following classifications from ISO 9999:1992:

Electric motor-driven wheelchairs with manual steering	12 21 24
Electric motor-driven wheelchairs with power steering	12 21 27
Powered attendant-controlled wheelchairs	12 21 21
Manual attendant-controlled wheelchairs	12 21 03
Bimanual rear-wheel-driven wheelchairs	12 21 06
Bimanual front-wheel-driven wheelchairs	12 21 09
Bimanual lever-driven wheelchairs	12 21 12
Single-side-driven nonpowered wheelchairs driven by one arm or one leg	12 21 15
Foot-propelled wheelchairs	12 21 18

It does not apply to wheelchairs with a seat width of less than 212 mm. This part of ISO 7176 does not specify nominal seating and wheel dimensions for wheelchairs.
NOTE: For wheelchairs not covered by the scope, this part of ISO 7176 may still give an indication of where measurements should be made. Observe that for wheelchairs designed for users whose mass is significantly greater than the reference loader gauge (see Annex A) and which have compressible parts such as sprung wheels and/or seats, this measurement procedure may not give the correct seat measurements, as the compressible parts will not be fully compressed.

ZWS ISO 7176: Part 8:2015
Wheelchairs
Part 8:2015: Requirements and test methods for static, impact and fatigue strengths
Price Code: Gr 8
66 pages
Identical to ISO 7176-8:2015

This part of ISO 7176 specifies requirements for static, impact, and fatigue strength of wheelchairs including scooters. It specifies the test methods for determining whether the requirements have been met. It also specifies requirements for disclosure of the test results. The test methods can also be used to verify the manufacturers' claims that a product exceeds the minimum requirements of this part of ISO 7176. This International Standard applies to occupant- and attendant-propelled manual wheelchairs and electrically powered wheelchairs intended to provide indoor and outdoor mobility for people with disabilities.
NOTE 1: For the purposes of this part of ISO 7176, "wheelchair(s)" is used as an abbreviation for manual wheelchair(s) or electrically powered wheelchair(s), including scooter(s), to which the requirements and test methods are applied.
NOTE 2: Clauses of this part of ISO 7176 will be used as a basis for developing requirements and test methods for wheelchairs not covered by this part of ISO 7176.

ZWS ISO 7176: Part 26:2007
Wheelchairs
Part 26:2007: Vocabulary
Price Code: Gr 8
41 pages
Identical to ISO 7176-26:2007

This part of ISO 7176 specifies a vocabulary consisting of terms and definitions used in the field of manual and electrically powered wheelchairs (including scooters) and associated seating systems. This part of ISO 7176 includes, but is not limited to, the preferred terms used in two or more ISO standards of the ISO 7176, ISO 10542, and ISO 16840 series, but does not include terms considered to be adequately defined in everyday English.
NOTE 1: In addition to terms used in the three official ISO languages (English, French and Russian), this International Standard

gives the equivalent terms in United States English; these are published under the responsibility of the member body/National Committee for the United States. However, only the terms and definitions given in the official languages can be considered as ISO terms and definitions.
NOTE 2: Annex A provides a standard set of descriptors for characterizing wheelchairs.

ZWS ISO 7176: Part 30:2018
Wheelchairs
Part 30:2018: Wheelchairs for changing occupant posture – test methods and requirements
Price Code: Gr 6
26 pages
Identical to ISO 7176-30:2018

This document specifies the test methods and requirements for determining the safety and performance of a manual and/or power wheelchair that incorporates technology to alter the posture of the wheelchair occupant, which are either electrically or manually operated by the occupant or assistant during normal wheelchair use. This can include recline, tilt, elevate and stand-up mechanisms or a combination of these. In order for a wheelchair to be able to recline, tilt, elevate and/or stand-up, the wheelchair requires additional mechanisms and mechanical structures to allow these features to operate. This document specifies the different functional and strength tests required to test these wheelchairs in critical configurations of their adjustable range. This document does not cover wheelchairs where the only operator adjustable body support system (OABSS) is adjustable limb or head postural support devices alone (e.g. elevating leg supports). This document does not include wheelchair and postural support device customization during initial or subsequent setup of a wheelchair for an individual occupant. It also does not reflect other factors that can influence wheelchair stability such as occupant movement, cushion thickness, and the addition of ancillary equipment (e.g. respiratory support items).

ZWS ISO 7176: Part 32:2022
Wheelchairs:
Part 32 Test method for wheelchair castor assembly durability
Price Code: Gr 6
11 pages
Identical to ISO 7176-32:2022

This document specifies strength requirements and test methods for wheelchair castor assemblies. The test methods include corrosion, abrasion and fatigue conditions. This document also specifies requirements for disclosure of test results. It is applicable to castor assemblies of or developed for use in occupant and to assistant-propelled manual wheelchairs and electrically powered wheelchairs. The test requirements are also applicable to wheelchair castor assemblies not necessarily associated or supplied with a wheelchair. Castor assemblies including those with anti-tip castor wheels that do not touch the ground during wheelchair travel are outside the scope of this document.

ZWS ISO 7211:1998
Textiles – Woven fabrics – Construction – Methods of analysis. Part 2:Determination of number of threads per unit length.
Price Code: Gr 3
6 pages
Identical to ISO 7211:1984

Specifies three methods of the determination of the number of thread per centimenre in woven fabrics.

ZWS ISO 7212:1986
Enclosure For Protective Against Ionizing Radiation Lead Shielding Units for 50mm And 100mm Thick walls Guidelines
Price Code: Gr. 7
54 pages
Identical to ISO 7212:1986

This document provides guidelines on managing risk faced by organisations.The application of these guidelines can be customized to any organization and its context.It provides a common approach to managing any type risk of risk and is not industry or sector specific

ZWS ISO 7218:2024
Microbiology of the food chain — General requirements and guidance for microbiological examinations
Price Code: Gr 8
85 pages
Identical to ISO 7218:2024
Supersedes ZWS ISO 7218:2007/Amd 1:2013

This document specifies general requirements and gives guidance on microbiological examinations. It is applicable to:
—the implementation of specific horizontal or vertical International Standards developed by ISO/TC 34/SC 9 or ISO/TC 34/SC 5 for detection or enumeration of microorganisms, named hereafter "specific standards";
—good laboratory practices for microbiology laboratories testing samples from the food chain;
—guidance for microbiological laboratories testing samples from the food chain on the technical requirements for conforming to ISO/IEC 17025. The requirements of this general standard supersede corresponding ones in existing specific standards. Additional instructions for examinations using the polymerase chain reaction (PCR) are specified in ISO 22174. This document is applicable to examinations for bacteria, yeasts and moulds and can be used, if supplemented with specific guidance, for parasites and viruses. It does not apply to examinations for toxins or other metabolites (e.g. amines) from microorganisms. This document is applicable to microbiology of the food chain, from primary production stage to food and animal feed products, including the premises where the food or feed production and handling takes place. It is also applicable to the microbiological examination of water where water is used in food production or is regarded as a food in national legislation.

ZWS ISO 7225:2005
Gas cylinders -Precautionary labels
Price Code: Gr 5
7 pages
Identical to ISO 7225:2005

This International Standard specifies the design, content (i.e. hazard symbols and text) and application of precautionary labels intended for use on individual gas cylinders containing single gases or gas mixtures. Labels for cylinders of bundles and labels for bundles are not covered by this International Standard.

ZWS ISO 7238:2005
Butter – Determination of pH of the serum – potentiometric method.
Price Code : Gr 5
5 pages
Identical to ISO 7238:2005

Specifies a potentiometric method of the determination of the pH of the serum from all types of butter.

ZWS ISO 7251:2005
Microbiology – General guidance for enumeration of presumptive Escherichia coll – most probable number technique.
Price Code: Gr 4
7 pages
Identical to ISO 7251
Gives general guidance for the enumeration of presumptive Escherichia coli products intended for human consumption or feeding of animals, by means of the Liquid-medium culture technique and calculation of the most probable number (MPN) after incubation at 35^0C or 37^0C, then incubation at 45^0C.

ZWS ISO 7256:2000
Sowing equipment
Part 1: Single seed drills (precision drills)
Price Code: Gr 5
14 pages
Identical to ISO 7256 part 1 1984

Specifies test methods for single seed drills (precision drills)

Part 2: Seed drills for sowing in lines
Price Code: Gr 4
12 pages
Identical to ISO 7256 part 2 1984

Specifies a test method for seed drills for sowing in lines, including seed drills attached to a basic machine.

ZWS ISO 7302:2003
Cereals and cereal products – Determination of total fat content
Price Code: Gr 2
3 pages
Identical to ISO 7302: 1982

Specifies a method for the determination of the total fat content of cereals and cereal products intended for human consumption, including baked products and pasta.

ZWS ISO 7328:2009
Milk based edible ices and ice mixes – Determination of fat content – Gravimetric method (Reference method)
Price Code: Gr 5
15 pages
Identical to ISO 7328:1999

Specifies the reference method for the determination of the fat content of most milk based edible ices and ice mixes.

ZWS ISO 7439:2011
Copper-bearing contraceptive intrauterine devices – Requirements and tests
Price Code: Gr. 4
11 pages
Identical to ISO 7439:2011

Specifies requirements and tests for single-use , copper-bearing contraceptive intrauterine devices (IUDs) and their insertion instruments.

ZWS ISO 7447:1998
Fruit and vegetable products – Determination of tin content
Price Code: Gr. 3
4 pages
Identical to ISO 7447:1998

Specifies a method for the determination of the tin content in fruit and vegetable products.

ZWS ISO 7458:2000
Glass containers – Internal pressure resistance
Price Code: Gr 4
2 pages
Identical to ISO 7458: 1984

Specifies two test methods for the internal pressure resistance of glass containers.

ZWS ISO/TR 7470:2023
Gas cylinders - List of provisions
Price Code: Gr 7
11 pages
Identical to ISO 7470:2023

This document lists gas cylinders valve outlets in use.
This document provides details of thread types and sizes.
NOTE: Complete descriptions of particular valve outlets are given in national standards.

ZWS ISO 7504:2015
Gas analysis – Vocabulary
Price Code: Gr. 6
15 pages
Identical to ISO 7504:2015

This International Standard defines terms related to gas analysis, with the main focus on terms related to calibration gas mixtures for use in gas analysis and gas measurements. It does not cover terms which relate only to specific applications.

ZWS ISO 7513:2003
Instant tea in solid form – Determination of moisture content (loss in mass at 103^0C)
Price Code: Gr 2
2 pages
Identical to ISO 7513:1990

Specifies a method for the determination of the moisture content of instant tea in solid form as received (loss in mass at 103^0C.).

ZWS ISO 7514:2003
Instant tea in solid form – Determination of total ash
Price Code: Gr 2
2 pages
Identical to ISO 7514:1990

Specifies a method for the determination of the total ash of instant tea in solid form.

ZWS ISO 7516:2003
Instant tea in solid form – Sampling
Price Code: 4
4 pages
Identical to ISO 7516:1984

Specifies method of sampling instant tea in solid form . It applies to sampling from containers of all sizes.

ZWS ISO 7535:1984
Surface active agents — Detergents for domestic machine dishwashing — Guide for comperative testing of performance
Price Code: Gr. 4
9 pages
Identical to ISO 7535:1984

This International Standard establishes guidelines for carrying out comparative tests on machine dishwashing products solid or liquid, in an attempt to reflect realistically the performance of products likely to be used by consumers. It lists and defines the performance

characteristics considered; it gives details of the variables to be taken into account, indicates their significance and provides a basis for designing adequate comparative test methods.

ZWS ISO 7708 :1999
Air quality – particle size fraction definitions for health related sampling
Price Code: Gr 4
9 pages
Identical to ISO 7708:1995

Defines sampling conventions for particle size fractions for use in assessing possible health effects of airborne particles in the workplace and ambient environment.

ZWS ISO 7812: Part 1:2017
Identification cards – Identification of issuers
Part 1: Numbering system
Price Code: Gr 5
7 pages
Identical to ISO 7812-1:2017

This document specifies a numbering system for the identification of the card issuers, the format of the issuer identification number (IIN) and the primary account number (PAN).

ZWS ISO 7812: Part 2:2017
Identification cards – Identification of issuers
Part 2:2014: Application and registration procedures
Price Code: Gr. 6
13 pages
Identical to ISO 7812-2:2017

This document specifies the application and registration procedures for Issuer Identification Numbers (IINs) issued in accordance with ISO/IEC 7812 1.

ZWS ISO 7857:1999
Intra-uterine devices
Part 1: Determination of breaking force
Price Code: Gr 1
1 page
Identical to ISO 7857 Part 1 1983

Specifies a method for the determination of the breaking force if intra-uterine devices (IUDs) with or without thread.

Part 3: Packaging and labeling
Price Code: Gr 1
2 pages
Identical to ISO 7857: Part 3 1983

Specifies requirements for the packaging and labeling of intra-uterine devices (IUDs).

ZWS ISO 7864:2004
Sterile hypodermic needles for single use
Price Code: Gr 5
11 pages
Identical to ISO 8786:1993

Specifies requirements for sterile hypordemic needles for single use of normal diameters 0.3mm and1.2mm.

ZWS ISO 7886:2005
Sterile hypodermic syringes for single use
Part 1:Syringes for manual use
Price Code: Gr 5
23 pages
Identical to ISO 7886: Part 1 1983
Specifies requirements for sterile single use hypodermic syringes made of plastic materials and intended for the aspiration of fluids immediately after filling.

Part 2: Syringes for use with power driven syringe pumps
Price Code: Gr 5
14 pages
Identical to ISO 7886:Part 2 1996

Specifies requirements for sterile single use hypodermic syringes of nominal capacity 5ml and above, made of plastics materials intended for use with power-driven syringe pump.

Part 3: Auto-disable syringes for fixed-dose immunization
Price Code: Gr 5
13 pages
Identical to ISO 7886: Part 3 2005

Specifies the properties and performance of sterile single-use hypodermic syringes with or without needle, made of plastic materials and stainless steel and intended for the aspiration of vaccines or for the injection of vaccines immediately after filling.

Part 4:2011 Sterile hypodermic syringes for single use – Syringes with re-use prevention failure
Price Code: Gr.4
12 pages
Identical to ISO 7886.4:2006

Specifies requirements for sterile single-use hypodermic syringes made of plastics material with or without needle and intended for the aspiration of fluids or for the injection of fluids immediately after filling and of design such that the syringe can be rendered unusable after use.

ZWS ISO 7887:2011
Water quality — Examination and determination of colour
Price Code: Gr 5
14 pages
Identical to ISO 7887:2011
Supersedes ZWS 477:1996

This International Standard specifies four different methods, designated A to D, for the examination of colour. The previously most employed method for assessment of water colour in water treatment plants, limnological surveys, etc. was based on the hexachloroplatinate scale (Reference [1]). Methods C and D are harmonized with this traditional procedure (References [2][3]).
Method A involves examination of apparent colour by visually observing a water sample in a bottle. This gives only preliminary information, for example for use in field work. Only the apparent colour can be reported.
Method B involves determination of the true colour of a water sample using optical apparatus and is applicable to raw and potable water and to industrial water of low colour. A subclause on interferences is included.
Method C involves determination of the true colour of a water sample using optical apparatus for comparison with hexachloroplatinate concentration at wavelength, □ = 410 nm. A subclause on interferences is included.
Method D involves determination of colour by visual comparison with hexachloroplatinate standard solutions and can be applied to raw and drinking water. A subclause on interferences is included.

Methods A and B are appropriate if the colour hue of the sample differs from the hue of the matching solution.
NOTE 1 Under certain circumstances, strongly coloured water samples require dilution before examination or determination. However, this can alter the physical-chemical conditions leading to a change in colour.
NOTE 2 An internal quality control procedure for all methods specified in this International Standard is given in Annex A. Precision data are given in Annex B.
When stating the result, the procedure used (methods A to D) is also recorded.

ZWS ISO 7889:2005
Yogurt – Enumeration of characteristic microorganisms colony-count technique at 37^0C
Price Code: Gr 5
11 pages
Identical to ISO 7889:2003

Specifies a method for the enumeration of characteristic microorgamisms in yogurt by means of the colony-count technique at 37^0C.

ZWS ISO 7934:2000
Stationary source emissions – Determination if the mass concentration of sulphur dioxide - Hydrogen peroxide/barium perchlorate/Thorin method
Price Code: Gr 4
6 pages
Identical to ISO 7934:1989

Specifies a hydrogen peroxide/barium perchlorate/Thorine method for the determination of the mass concentration of dioxide emitted from combustion facilities and technical processes with negligible amount of sulphur acid.

ZWS ISO 7935:2024
Stationary source emissions - Determination of the mass concentration of sulfur dioxide in flue gases - Performance characteristics of automated measuring systems
Price Code: Gr 7
45 pages
Identical to ISO 7935:2024
Replaces ZWS ISO 7935:2000

This document specifies a method for the determination of sulfur dioxide (SO2) in flue gases of stationary sources and describes the fundamental structure and the key performance characteristics of automated measuring systems. The method allows continuous monitoring with permanently installed measuring systems of SO2 emissions. This document describes extractive systems and in situ (non-extractive) systems in connection with a range of analysers that operate using, for example, the following principles:
—non-dispersive infrared absorption (NDIR);
—Fourier transform infrared (FTIR) spectroscopy;
—laser spectroscopic technique or tunable laser spectroscopy (TLS);
—non-dispersive ultraviolet absorption (NDUV);
—differential optical absorption spectroscopy (DOAS).
Other equivalent instrumental methods can be used provided they meet the minimum performance requirements specified in this document. The measuring system can be validated with reference materials, according to this document, or comparable methods. Automated measuring system (AMS) based on the principles listed above has been used successfully in this application for the measuring ranges as shown in Annex E..

ZWS ISO 7954:2005
Microbiology – General guidance of enumeration of yeasts and moulds – Colony-count technique at 30^0C
Price Code: Gr 3
3 pages

Gives general guidance for the enumeration of viable yeasts and moulds in products intended for human consumption or feeding of animals by means of the colony count technique at 25^0C.

ZWS ISO 7965
Packaging – sacks – drop test
Part 1:1999 Paper sacks
Price Code: Gr 4
8 pages
Identical to ISO 7965:1984

Specifies a method vertical impact testing on a filled paper sack by dropping.

Part 2: 1996 Sacks made from thermoplastic flexible film.
Price Code: Gr 5
15 pages
Identical to ISO 7965: Part 2 1993

Specifies a method of vertical impact testing on a filled sack made from thermoplastic flexible film, by dropping.

ZWS ISO 7971: Part 1:2009
Cereals — Determination of bulk density, called mass per hectolitre
Part 1:2009: Reference method
Price Code: Gr 4
9 pages
Identical to ISO 7971-1:2009

This part of ISO 7971 specifies the reference method for the determination of bulk density, called “mass per hectolitre”, of cereals as grain.
NOTE: Several routine methods are used in different countries. A routine method for the determination of bulk density, called “mass per hectolitre”, is given in ISO 7971-3.

ZWS ISO 7971: Part 2:2019
Cereals — Determination of bulk density, called mass per hectolitre
Part 2:2019: Method of traceability for measuring instruments through reference to the international standard instrument
Price Code: Gr 6
25 pages
Identical to ISO 7971-2:2019

This document specifies a test method for ensuring the traceability of bulk density, called “mass per hectolitre”, measuring instruments through reference to standard measurement instruments. The mass per hectolitre is of commercial importance for grain cereals. Several types of instruments with varying performances exist for measuring it. This document also specifies the performances required of national standards instruments, secondary standards instruments, and measuring instruments used in laboratories or in collection or storage silos.

ZWS ISO 7971: Part 3:2019
Cereals — Determination of bulk density, called mass per hectolitre
Part 3:2019: Routine method
Price Code: Gr 5
13 pages
Identical to ISO 7971-3:2019

This document specifies a routine method for the determination of bulk density, called "mass per hectolitre", of cereals as grain using manual or automatic, mechanical, electric or electronic mass per hectolitre measuring instruments.
NOTE: Further details of the measuring instruments are specified in ISO 7971 2:2019, 6.4.

ZWS ISO 7996:2000
Ambient air – Determination of the mass concentration of nitrogen oxides – chemiluminescene method
Price Code: Gr 4
9 pages
Identical to ISO 7996:1995

Specifies a chemiluminescene method for the determination of the mass concentration of nitrogen oxides present in ambient air.

ZWS ISO 8009:2005
Mechanical contraceptives – Reusable natural and silicone rubber contraceptive diaphragms – Requirements and tests.
Price Code: Gr 6
26 pages
Identical to ISO 8009:2005

Specifies the minimum requirements and test method to be used for reusable diaphragms made from natural rubber and silicone rubber and . These are intended for contraceptive use.

ZWS ISO 8069:2006
Dried milk – Determination of content of lactic acid and lactates.
Price Code: Gr 5
13 pages
Identical to ISO 8069:2005

Specifies an enzymatic method for the determination of the lactic acid and lactates content of all types of dried milk.

ZWS ISO 8070:2007
Milk and milk products – Determination of calcium, sodium, potassium and magnesium contents – Atomic absorption spectrometric method
Price Code: Gr 6
14 pages
Identical to ISO 8070:2007

Specifies a flame atomic absoption spectrometric method for the determination of calcium, sodium, potassium and magnesium contents in milk and milk products.

ZWS ISO 8086:2005
Dairy plant – Hygiene conditions – General guidance on inspection and sampling procedures.
Price Code: Gr 5
9 pages
Identical to ISO 8088:2004

Gives general guidelines for inspection and sampling procedures to be used to check the effectiveness of cleaning and disinfection methods used in dairy plants and receiving stations, including milk collection tankers.

ZWS ISO 8113:2000
Glass containers – Resistance to vertical load
Price Code: Gr 2
2 pages
Identical to ISO 8113:1985

Specifies a method of inspection and determination of the resistance of glass containers to external force in the direction of axis. The pass tests are intended especially for containers the resistance of which is specified.

ZWS ISO 8156:2006
Dried milk and dried milk products – determination of insolubility index.
Price Code: Gr 4
10 pages
Identical to ISO 8156:2005

Specifies a method of determining the insolubility index, as a means of assessing the solubility of dried whole milk, dried partly skimmed milk and dried skimmed milk, whether non instant or instant.

ZWS ISO 8157:2015
Fertilizers and soil conditioners - Vocabulary
Price Code: Gr 6
22 pages
Identical to ISO 8157:2015

Defines terms relating to fertilizers and soil conditioners.

ZWS ISO 8186:2000
Ambient air – Determination of the mass concentration of carbon monoxide – Gas chromatographic method
Price Code: Gr 6
8 pages
Identical to ISO 8186:1989

Specifies a gas chromatographic for the determination of the mass concentration of carbon monoxide in ambient air from a variety of sources.

ZWS ISO 8199:2018
Water quality — General requirements and guidance for microbiological examinations by culture
Price Code: Gr 6
55 pages
Identical to ISO 8199:2018

This document specifies requirements and gives guidance for performing the manipulations common to each culture technique for the microbiological examination of water, particularly the preparation of samples, culture media, and general apparatus and glassware, unless otherwise required in the specific standard. It also describes the various techniques available for detection and enumeration by culture and the criteria for determining which technique is appropriate. This document is mainly intended for examinations for bacteria, yeasts and moulds, but some aspects are also applicable to bacteriophages, viruses and parasites. It excludes techniques not based on culturing microorganisms, such as polymerase chain reaction (PCR) methods.

ZWS ISO 8196:2009
Milk – Definition of the overall accuracy of alternative methods of milk analysis
Part 1: Analytical attributes of alternative methods
Price Code: Gr.5
13 pages
Identical to ISO 8196.1:2009

Specifies various performance characteristics that constitute and constitute and serve to characterize the overall accuracy of an analytical method.It furthermore establishes general principles for the design of experiments and gives guidelines for the procedures to be used to evaluate these characteristics quantitatively.

Part 2: Calibration and quality control in the dairy laboratory
Price Code: Gr. 6
25 pages

Gives guidelines for the calibration of instruments and quality control procedures for milk analysis in dairy laboratories.

Part 3: Protocol for the evaluation and validation of alternative quantitative methods of milk analysis
Price Code: Gr 7
45 pages
Identical to ISO 8196.3:2009

Specifies A protocol for the evaluation and validation of alternative quantitative methods of milk analysis. The protocol is applicable to all milk components including somatic cells.

ZWS ISO 8214:1985
Surface active agents — Washing powders — Determination of inorganic sulfates — Gravimetric method
Price Code: Gr. 4
5 pages
Identical to ISO 8214:1985

This International Standard specifies a gravimetric method for the determination of inorganic sulfates content of all types of commercial washing powders, without interference from other compounds usually present.

ZWS ISO 8215:1985
Surface active agents — Washing powders — Determination of total silica content — Gravimetric method
Price Code: Gr. 4
4 pages
Identical to ISO 8215:1985

This International Standard specifies a gravimetric method for the determination of total silica content of all types of commercial washing powders, except those which contain acid insoluble substances other than silica.

ZWS ISO 8260:2008
Milk and milk products – determination of organochlorine pesticides and polychlorobiphenyls – method using capillary gas – liquid chromatography with electron capture detection
Price Code: Gr 5
14 pages
Identical to ISO 8260:2008

Specifies a method for the determination of the contents of individual organochlorine pesticides(OCPs)and polychlorinated biphenyls(PCBs)in milk,evaporated milk,sweetened condensed milk,powdered milk products,butter and butterfat,cheese and other milk products.

ZWS ISO 8212:1986
Soaps and detergents — Techniques of sampling during Manufacture
Price Code: Gr 6
15 pages
Identical to ISO 8212:1986

This International Standard describes the general techniques of taking and preparing samples of soaps and detergents, for use in conjunction with a previously established sampling plan. This International Standard is only applicable during manufacture of soaps and detergents and only at the time of packaging (small and large packages) and it does not apply when a standard has been elaborated for a specific product. In the case of individual packages, this International Standard defines the techniques of preparing a bulk sample and a final sample.

ZWS ISO 8317:2015
Child-resistant packaging - Requirements and testing procedures for reclosable packages
Price Code:Gr.6
13 pages
Identical to ISO 8317:2015
Supersedes ZWS ISO 8317:2003

This International Standard specifies performance requirements and test methods for reclosable packages designated as resistant to opening by children. Acceptance criteria are given for the packages when tested by specified methods. These methods not only provide a measure of the effectiveness of the packaging in restricting access by children, but also cover the accessibility to the contents by adults. This International Standard is applicable to reclosable packages for any product intended to be exposed or removed from the packaging in normal use. This International Standard is intended for type approval only and is not intended for quality assurance purposes.

ZWS ISO/TR 8357:1998
Road vehicles – Instructions for the implementation of the assignment of world manufacturer identifier (WMI) codes for vehicle identification number (VIN) systems and for world parts manufacturer identifier (WPMI) codes.
Price Code: Gr 2
3 pages
Identical to ISO/TR 8357:1996

Gives instructions relating to the requesting and assignment of the WMI codes and WPMI codes according to ISO 3780 and ISO 4100 and for the maintenance of the master assignment list and files.

ZWS ISO 8381:2009
Milk – Based infant foods – Determination of fat content – Gravimetric method (Reference method)
Price Code: Gr 5
15 pages
Identical to ISO 8381:2008

Specifies the reference method for the determination of the fat content of milk based infant foods.

ZWS ISO 8518:2022
Workplace air - Determination of particulate lead and lead compounds - Flame and electrothermal atomic absorption spectrometric methods
Price Code: Gr 7
30 pages
Identification to ISO 8518:2022
Replaces ZWS ISO 8518:2000

This document specifies flame and electrothermal atomic absorption spectrometric methods for the determination of the time-weighted average mass concentration of particulate lead and lead compounds in workplace air. These methods are typically applicable to personal sampling of the inhalable fraction of airborne particles, as defined in ISO 7708, and to static (area) sampling. It can be applied to other health-related fractions as required. The sample dissolution procedure specifies hot plate or microwave assisted digestion, or ultrasonic extraction (see 11.2). The use of an alternative, more vigorous dissolution procedure is necessary when it is desired to extract lead from compounds present in the test atmosphere that are insoluble using the dissolution procedures described herein (see Clause 5). The flame atomic absorption method is applicable to the determination of masses of approximately 1 µg to 200 µg of lead per sample, without dilution[1]. The electrothermal atomic absorption method is applicable to the determination of masses of approximately 0,01 µg to 0,5 µg of lead per sample, without dilution[1]. The ultrasonic extraction procedure has been validated for the determination of masses of approximately 20 µg to 100 µg of lead per sample, for laboratory-generated lead fume air filter samples[2]. The concentration range for lead in air for which this procedure is applicable is determined in part by the sampling procedure selected by the user (see 10.1).

ZWS ISO 8537:2016
Sterile single use syringes , with or without needle for insulin.
Price Code: Gr 7
19 pages
Identical to ISO 8537:2016

This International Standard specifies requirements and test methods for empty, sterile, single-use syringes, with or without needles, made of plastic materials and intended solely for the injection of insulin, with which the syringes are filled by the end user. This International Standard covers syringes intended for single-use only in humans and with insulins of various concentrations. The insulin syringes specified in this International Standard are intended for use (i.e. insulin injection) immediately after filling and are not intended to contain insulin for extended periods of time. This International Standard excludes single-use syringes made of glass, syringes for use with power-driven syringe pumps, syringes that are pre-filled by the manufacturer, and syringes intended to be stored after filling (e.g. in a kit intended for filling by a pharmacist).

ZWS ISO 8583:2023
Financial-transaction-card-originated messages - Interchange message specifications
Price Code: Gr 6
19 pages
Identical to ISO 8583:2023
Replaces ISO 8583-1:2003, ISO 8583-2:1998 and ISO 8583-3:2003

This document specifies a common interface by which financial-transaction-card-originated messages can be interchanged between acquirers and card issuers. It specifies message structure and format, including normalized data types. Message, field, value definitions and supporting information are provided by the ISO 8583 maintenance agency (MA). Contact and web page information for the ISO 8583 MA can be found at: https://www.iso.org/maintenance_agencies.html. The method by which messages are transported or settlement takes place is not within the scope of this document.

NOTE: With the proliferation of technology available to financial institutions to offer services to customers, a range of tokens now exist for identifying account relationships (e.g. financial transaction cards). In order to maintain clarity, this document will continue to use card terminology that applies to tokens and cards, unless the element is specific to tokens or cards, in which case it will be identified as such. However, the actual token numeric issued by a financial institution can be different from the associated card numeric.

ZWS ISO 8601: Part 1: 2019
Data elements and interchange formats – Information interchange – Representation of dates and times: Basic rules
Price Code: Gr.7
35 pages
Identical to ISO 8601: Part 1: 2019

This document specifies representations of dates of the Gregorian calendar and times based on the 24-hour clock, as well as composite elements of them, as character strings for use in information interchange. It is also applicable for representing times and time shifts based on Coordinated Universal Time (UTC). This document excludes the representation of date elements from non-Gregorian calendars or times not from the 24-hour clock. This document does not address character encoding of representations specified in this document.

ZWS ISO 8611:2000
General – purpose flat pallet for through transit of goods – Test methods.
Price Code: Gr 6
17 pages
Identical to ISO 8611:1991

Specifies test methods for general – purpose flat pallets.

ZWS ISO 8672:2014
Air Quality - Determination of the number concentration of airborne inorganic fibres by phase contrast optical microscopy -Membrane filter method
Price Code: Gr 7
40 pages
Identical to ISO 8672:2014

This International Standard specifies the determination of the number concentration of airborne inorganic fibres by phase contrast optical microscopy using the membrane filter method in workplace atmospheres, as defined by the counting criteria given in 6.5.4.

ZWS ISO 8756:2000
Air quality – Handling of temperature, pressure and humidity data
Price Code: Gr 2
4 pages
Identical to ISO 8756:1994

Describes procedures for adjusting air quality measurements for changes in temperature, pressure and humidity during the sampling.

ZWS ISO 8760:2000
Workplace air – Determination of mass concentration of carbon monoxide – Method using detector tubes for short term sampling with direct indication.
Price Code: Gr 4
6 pages
Identical to ISO 8756:1990

Specifies a method for the determination of the mass concentration of carbon monoxide present in the air at work places.

ZWS ISO 8761:2000
Workplace air – Determination of mass concentration of nitrogen dioxide – Method using detector tubes for short-term sampling with direct indication.
Price Code: Gr 4
8 pages
Identical to ISO 8761:1989

Specifies a method for the determination of the mass concentration of nitrogen dioxide present in the air at work places.

ZWS ISO 8762:2000
Workplace air – Determination of vinyl chloride – Charcoal tube.
Price Code: Gr 4
9 pages
Identical to ISO 8762:1988

Specifies a charcoal tube/gas chromatographic method for the determination of the vinyl chloride monomer concentration in workplace air.

ZWS ISO 8791:
Paper and board – Determination of roughness/smoothness (air leak methods)
Part 2:1999: Bendtsen method
Price Code: Gr 4
8 pages
Identical to ISO 8791: Part 2 1990

Specifies a method for the determination of the toughness of paper and board using the Bendtsen apparatus.

Part 3:1999: Sheffield method
Price Code: Gr 4
9 pages
Identical to ISO 8791:Part 3:1990
Specifies a method for the determination of the roughness of paper and board using the Sheffield apparatus.

Part 4:1999:Print-surf method
Price Code: Gr 4
12 pages

Specifies a method of determining the roughness of paper and board using the print- surf apparatus.

ZWS ISO/IEC 8808:2026
Information technology for learning, education and training — Online course information model
Price Code: Gr 7
34 pages
Identical to ISO/IEC 8808:2026

This document presents an online course information model, highlighting common elements and their descriptions. This document also describes online courses. Its purpose is to support conceptual understanding of online courses and instructional strategies in online education. This model can be used to inform about the design and development of online courses, and to support migration of online courses between different platforms under the premise of copyright transfer. The information model of online courses can be extended based on metadata of learning resource (MLR) rules.

ZWS ISO 8870:2009
Milk and milk based products – Detection of thermonuclease produced by coagulase – Positive staphylococci
Price Code: Gr 3
7 pages
Identical to ISO 8870:2006

Specifies a method for the detection of heat-stable DNase (thermonuclease) produced by coagulase-positive staphylococci in milk and milk-based products.

ZWS ISO 8967:2006
Dried milk and dried milk products – determination of bulk density
Price Code: Gr 4
6 pages
Identical to ISO 8967:2005

Specifies a method for the determination of the bulk density of whole milk, dried partly skimmed milk and dried skimmed milk as defined in FAO/WHO standard A - 5[1)], whether non instant or instant.

ZWS ISO 8968.4:2016
Milk and milk products – Determination of nitrogen content. Part 4: Determination of protein and non-protein nitrogen content and true protein content calculation (Reference method)
Price Code: Gr. 4
11 pages
Identical to ISO 8968.4/IDF20-4:2016

This standard specifies a method for the direct and indirect determination of the protein nitrogen content of liquid, whole or skimmed milk.

ZWS ISO 8970:2020
Timber structures — Testing of joints made with mechanical fasteners — Requirements for timber density
Price Code: Gr. 6
9 pages
Identical to ISO 8970:2020

This document specifies a method based on density, for the selection of pieces of wood used in determining the strength and stiffness properties of joints between members of structural timber made with mechanical fasteners. It is intended to be used in conjunction with a test standard specifying a test method. It is assumed that the wood pieces are conditioned to the relevant conditions, that the wood density is normally distributed and that any deviations are reported. This document is applicable only to specimens of structural timber.
NOTE: It is emphasized that the wood density is only one of the properties that can influence the strength of a joint. Other relevant properties are, for example, growth-ring size and orientation, toughness and hardness.

ZWS ISO 9000:2015
Quality management systems - Fundamentals and vocabulary
Price Code: Gr.10
58 pages
Identical to ISO 9000:2015
Replaces ZWS ISO 9000:2006

This document establishes the fundamental concepts and principles of quality management which are universally applicable to the following:
— organizations seeking sustained success through the implementation of a quality management system (QMS);
— customers seeking confidence in an organization’s ability to consistently provide products and services conforming to their requirements;
— organizations seeking confidence in their supply chain that product and service requirements will be met;
— organizations and interested parties seeking to improve communication through a common understanding of the vocabulary used in quality management;

— organizations performing conformity assessments against the requirements of ISO 9001;
— providers of training, assessment or advice in quality management;
— developers of related standards.
This document defines terms that apply to all quality management documents and QMS standards developed by ISO/TC 176.
This document is applicable to all organizations, regardless of size, complexity or business model.

ZWS ISO 9001:2015/ AMD 1:2024
Quality management systems – Requirements
Price Code: Gr.10
35 pages
Replaces ZWS ISO 9001:2008
Identical to ISO 9001:2015

This International Standard specifies requirements for a quality management system when an organization:
a) needs to demonstrate its ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements, and
b) aims to enhance customer satisfaction through the effective application of the system, including processes for improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements.
All the requirements of this International Standard are generic and are intended to be applicable to any organization, regardless of its type or size, or the products and services it provides.
NOTE 1: In this International Standard, the terms "product" or "service" only apply to products and services intended for, or required by, a customer.
NOTE 2: Statutory and regulatory requirements can be expressed as legal requirements.

ZWS ISO 9002:2016
Quality management systems – Guidelines for the Application of ISO 9001:2015
Price Code: Gr. 10
50 pages
Identical to ISO 9002:2016

This document provides guidance on the intent of the requirements in ISO 9001:2015, with examples of possible steps an organization can take to meet the requirements. It does not add to, subtract from, or in any way modify those requirements. This document does not prescribe mandatory approaches to implementation, or provide any preferred method of interpretation.

ZWS ISO 9004:2018
Quality management - Quality of an organization – Guidance to achieve sustained success
Price Code: Gr.10
60 pages
Replaces ZWS ISO 9004-1
Identical to ISO 9004:2018

Provides guidelines for enhancing an organization's ability to achieve sustained success.This guidance is consistent with the quality management principles given in ISO 9001:2015.This document provides a self- assessment tool to review the extent to which the organization has adopted the concepts in this document.

ZWS ISO 9096:2000
Stationary source emissions – Determination of concentration and mass flow rate of particulate material in gas carrying ducts – Manual gravimetric method
Price Code: Gr. 7
30 pages
Identical to ISO 9096:1992

Specifies a manual gravimetric method for the measurement of the concentration and mass flow rate of particulate matter in a moving gas stream in confined spaces as ducts, chimneys and flues.

ZWS ISO 9174: 1998
Water quality -Determination of chromium - Atomic absorption spectrometric methods
Price Code: Gr. 5
10 pages
Identical to ISO 9174:1998
Supersedes ZWS 494:1996

This International Standard specifies two methods for the determination of chromium in water by atomic absorption spectrometry. The two methods are covered in separate clauses as follows:
 Clause 3: Determination of chromium by flame atomic absorption spectrometry;
 Clause 4: Determination of chromium by electrothermal atomization atomic absorption spectrometry.
Clause 3 is applicable to the analysis of water and waste water when the concentration range is between 0,5 mg/l and 20 mg/l of chromium. When the concentration is below 0,5 mg/l, the determination can be carried out after carefully evaporating an acidified sample to small volume, taking care to avoid the formation of a precipitate.
NOTE The use of evaporation will increase the effect of interfering substances and therefore for concentrations below 0,1 mg/l the method in clause 4 is given.
Clause 4 is applicable to the analysis of water and waste water when the concentration range is between 5 g/l and 100 g/l of chromium by injecting a sample volume of 20 l. It is applicable to the determination of higher concentrations by using a smaller sample volume.

ZWS ISO 9227:2022
Corrosion tests in artificial atmosphers – Salt sprays tests
Price Code: Gr. 6
22 pages
Identical to ISO 9227:2022
Supersedes ZWS ISO 9227:2017

This document specifies the apparatus, the reagents and the procedure to be used in conducting the neutral salt spray (NSS), acetic acid salt spray (AASS) and copper-accelerated acetic acid salt spray (CASS) tests for assessment of the corrosion resistance of metallic materials, with or without permanent or temporary corrosion protection. It also describes the method employed to evaluate the corrosivity of the test cabinet environment. It does not specify the dimensions or types of test specimens, the exposure period to be used for a particular product, or the interpretation of results. Such details are provided in the appropriate product specifications. The salt spray tests are particularly useful for detecting discontinuities, such as pores and other defects, in certain metallic, organic, anodic oxide and conversion coatings.
The NSS test is particularly applicable to:
—metals and their alloys;
—metallic coatings (anodic and cathodic);
—conversion coatings;
—anodic oxide coatings;
—organic coatings on metallic materials.
The AASS test is especially useful for testing decorative coatings of copper + nickel + chromium, or nickel + chromium. It has also been found suitable for testing anodic and organic coatings on aluminium. The CASS test is useful for testing decorative coatings of copper + nickel + chromium, or nickel + chromium. It has also been found suitable for testing anodic and organic coatings on aluminium. The salt spray methods are all suitable for checking that the quality of a metallic material, with or without corrosion protection, is maintained. They are not intended to be used for comparative testing as a means of ranking different materials relative to

each other with respect to corrosion resistance or as means of predicting long-term corrosion resistance of the tested material.

ZWS ISO 9231:2008
Milk and milk products determination of benzoic and sorbic acid contents
Price Code: Gr. 5
9 pages
Identical to ISO 9231:2008

Specifies a method for the determination of the benzoic and sorbic acid contents in milk and milk.The method is applicable to milk,dried milk,yogurt and other fermented milks and cheese and processed cheese and is suitable for measuring the contents of both compounds at levels of more than 5 mg/kg.

ZWS ISO 9233: Part 1/IDF 140-1:2018
Cheese, cheese rind and processed cheese – Determination of natamycin content:
Part 1:2018: Molecular absorption spectrometric method for cheese rind
PriceCode: Gr.6
13 pages
Identical to ISO 9233-1:2018

This document specifies a method for the determination in cheese rind of natamycin mass fraction of above 0,5 mg/kg and surface-area-related natamycin mass of above 0,03 mg/dm2.
NOTE: It is possible that the method is suitable for detecting migration of natamycin into the cheese.

ZWS ISO 9233: Part 2|IDF 140-2:2018
Cheese, cheese rind and processed cheese – Determination of natamycin content
Part 2:2018: High-performance liquid chromatographic method for cheese, cheese rind and processed cheese
Price Code: Gr. 4
11 pages
Identical to ISO 9233-2:2018

This document specifies a method for the determination of natamycin mass fraction in cheese, cheese rind and processed cheese of above 0,5 mg/kg and of the surface-area-related natamycin mass in cheese rind of above 0,03 mg/dm2.

ZWS ISO/TR 9310:1999
Road vehicles – Smoke measurement of compression – Ignition (diesel) engines – Survey of short in-service tests.
Price Code: Gr. 6
18 pages
Identical to ISO/TR 9310:1987

Describes and assesses the different simplified short tests for the determination of the exhaust smoke emission of diesel engines of vehicles in service.

ZWS ISO 9359:2000
Air quality – Stratified sampling method for assessment of ambient air quality
Price Code: Gr 4
12 pages
Identical to ISO 9359:1989

Specifies a method for the assessment of certain aspect of ambient air quality in terms of percentiles and means using the principles of stratified sampling.

ZWS ISO 9444: Part 1:2009
Continuously hot-rolled stainless steel -Tolerances on dimensions and form
Part 1: 2009: Narrow strip and cut lengths
Price Code: Gr 5
9 pages
Identical to ISO 9444-1:2009
Replaces COMESA ZWS HS ISO 9444-1:2007

This part of ISO 9444 specifies the tolerances on dimensions and form for continuously hot-rolled stainless steel narrow strip in actual widths of less than 600 mm. It also applies to cut lengths taken from such strip.

ZWS ISO 9444: Part 2:2009
Continuously hot-rolled stainless steel - Tolerances on dimensions and form
Part 2:2009: Wide strip and sheet/plate
Price Code: Gr 5
9 pages
Identical to ISO 9444-2:2009
Replaces COMESA ZWS HS ISO 9444-2:2006

This part of ISO 9444 specifies the tolerances on dimensions and form for continuously hot-rolled stainless steel wide strip in actual widths from 600 mm to 2 500 mm and for sheet/plate cut from such strip.

ZWS ISO 9459:1999
Solar heating – Domestic water heating systems
Part 2: Outdoor test methods for system performance characterization and yearly performance prediction of solar systems
Price Code: Gr 8
61 pages
Identical to ISO 9459:Part 2:1995

Establishes test procedures for characterizing the performance of solar domestic water heating system with in-tank auxiliary boosting, and for predicting annual performance in any given climatic condition.

Part 3: Performance test for solar plus supplementary systems
Price Code: Gr 7
61 pages
Identical to ISO 9459:Part 3:1997

Establishes test procedures for characterizing the performance of solar domestic water heating system with in-tank auxiliary boosting, and for predicting annual performance in any given climatic condition.

ZWS ISO 9362:2022
Banking – Banking telecommunication messages – Business identifier code (BIC)
Price Code: Gr 4
6 pages
Identical to ISO 9362:2022

This document specifies the elements and structure of a universal identifier code, the business identifier code (BIC), for financial and non-financial institutions, for which such an international identifier is required to facilitate automated processing of information for financial services. The BIC is used for addressing messages, routing business transactions and identifying business parties. This document applies to organizations and excludes individual persons.

ZWS ISO 9486:2000
Workplace air – Determination of vaporous chlorinated hydrocarbons – Charcoal tube/solvent desorption/gas chromatographic method.
Price Code: Gr. 4
12 pages
Identical to ISO9486:1991

Specifies a charcoal tube or gas chromatographic method for the determination of the concentration of vaporous chlorinated hydrocarbons in workplace air.

ZWS ISO 9487:2000
Workplace air – Determination of vaporous aromatic hydrocarbons – Charcoal tube/solvent desorption/gas chromatographic method
Price Code: Gr. 4
12 pages
Identical to ISO 9487:1991

Specifies charcoal tube or gas chromatographic method for the determination of the concentration of vaporous aromatic hydrocarbons in workplace air.

ZWS ISO 9622:2013
Milk and liquid milk products – Guidelines for the application of mid-infrared spectrometry
Price Code: Gr. 6
16 pages
Identical to ISO 9622:2013

Gives guidelines for the quantitative compositional analysis of milk and liquid milk products such as raw milk, processed milk, cream and whey by measurement of the absorption of mid-infrared radiation.

ZWS ISO 9626:2016
Stainless steel needle tubing for manufacture of medical devices – Requirements and test methods
Price Code: Gr. 6
22 pages
Identical to ISO 9626:2016

Provides requirements and test methods for the tubes manufactured for the needles as component used in medical devices. Specifies the dimensions and mechanical properties of steel tubing of designated metric sizes 3.4 mm (10 Gauge) to 0,18mm (34 Gauge).

ZWS ISO 9709:2018
Structural timber — Visual strength grading — Basic principles
Price Code: Gr. 7
40 pages
Identical to ISO 9709:2018
Replaces COMESA ZW HS ISO 9709:2018

This document establishes the basic principles for rules and procedures governing the visual sorting of timber for use in structural applications.

ZWS ISO 9712:2013
Non - destructive testing – Qualification and certification of NDT personnel
Price Code: Gr.7
37 pages
Identical to ISO 9712:2012

Specifies requirements for principles for the qualification and certification of personnel who perform industrial non-destructive testing (NDT).

ZWS ISO 9768:2003
Tea – determination of water extract
Price Code: Gr. 2
3 pages

Specifies a method for the determination of water extract from tea.

ZWS ISO/IEC 9798:2024
SIT Security techniques- Entity authentication
Part 3: Mechanisms using digital signature techniques
Price Code: Gr. 6
28 pages

This document specifies entity authentication mechanisms using digital signatures based on asymmetric techniques. A digital signature is used to verify the identity of an entity. Ten mechanisms are specified in this document. The first five mechanisms do not involve an on-line trusted third party and the last five make use of on-line trusted third parties. In both of these two categories, two mechanisms achieve unilateral authentication and the remaining three achieve mutual authentication.
Annex A defines the object identifiers assigned to the entity authentication mechanisms specified in this document.

ZWS ISO 9809: Part 1:2019
Gas cylinders - Design, construction and testing of refillable seamless steel gas cylinders and tubes
Part 1: Quenched and tempered steel cylinders and tubes with tensile strength less than 1 100 MPa
Price Code: Gr. 7
59 pages
Identical to ISO 9809-12019

This document specifies minimum requirements for the material, design, construction and workmanship, manufacturing processes, examination and testing at time of manufacture for refillable seamless steel gas cylinders and tubes with water capacities up to and including 450 l. It is applicable to cylinders and tubes for compressed, liquefied and dissolved gases and for quenched and tempered steel cylinders and tubes with a maximum actual tensile strength Rma of less than 1 100 MPa.

ZWS ISO 9809: Part 2:2019
Gas cylinders - Design, construction and testing of refillable seamless steel gas cylinders and tubes
Part 2: Quenched and tempered steel cylinders and tubes with tensile strength greater than or equal to 1100 MPa
Price Code: Gr. 8
63 pages
Identical to ISO 9809-2:2019

This document specifies minimum requirements for the material, design, construction and workmanship, manufacturing processes, examination and testing at time of manufacture for refillable seamless steel gas cylinders and tubes with water capacities up to and including 450 l. it is applicable to cylinders and tubes for compressed, liquefied and dissolved gases and for quenched and tempered steel cylinders and tubes with an actual tensile strength Rma $\geq$ 1 100 MPa. It is not applicable to cylinders and tubes with Rma, max > 1 300 MPa for diameters >140 mm and guaranteed wall thicknesses a′ $\geq$ 12 mm and for cylinders and tubes with Rma, max > 1 400 MPa for diameters $\leq$140 mm and guaranteed wall thicknesses a′ $\geq$ 6 mm because, beyond these limits, additional requirements can apply.

ZWS ISO 9809: Part 3:2019
Gas cylinders -Refillable seamless steel gas cylinders - Design, construction and testing
Part 3: Normalized steel cylinders
Price Code: Gr. 7
50 pages
Identical to ISO 9809-3:2019

This part of ISO 9809 specifies minimum requirements for the material, design, construction and workmanship, manufacturing processes, examination and testing at manufacture of refillable normalized or normalized and tempered seamless steel gas cylinders of water capacities from 0,5 l up to and including 150 l for compressed, liquefied and dissolved gases.
NOTE 1: If desired, cylinders of water capacity less than 0,5 l can be manufactured and certified to be in compliance with this part of ISO 9809.
NOTE 2: For quenched and tempered steel cylinders with maximum tensile strength less than 1 100 MPa, see ISO 9809-1. For quenched and tempered cylinders with maximum tensile strength W 1 100 MPa, see ISO 9809-2.

ZWS ISO 9809: Part 4:2021
Gas cylinders - Design, construction and testing of refillable seamless steel gas cylinders and tubes
Part 4: 2021: Stainless steel cylinders with an Rm value of less than 1 100 MPa
Price Code: Gr. 7
62 pages
Identical to ISO 9809-4:2021

This document specifies the minimum requirements for the materials, design, construction and workmanship, manufacturing processes, examinations and testing at time of manufacture for refillable, seamless, stainless steel gas cylinders with water capacities up to and including 150 l. It is applicable to cylinders for compressed, liquefied and dissolved gases with a maximum actual tensile strength, Rma, of less than 1 100 MPa.
NOTE: If so desired, cylinders of water capacity between 150 l and 450 l can be manufactured to be in full conformance to this document.

ZWS ISO 9835:2000
Ambient air – Determination of a black smoke index.
Price Code: Gr. 4
9 pages
Identical to ISO 9835:1993

Specifies a method for measuring the black smoke index of an ambient air sample.

ZWS ISO 9852:2007
Unplasticized poly(vinyl chloride) (PVC-U) pipes — Dichloromethane resistance at specified temperature (DCMT) — Test method
Price Code: Gr. 5
6 pages
Identical to ISO 9852:2007

This International Standard specifies a method for determining the resistance of unplasticized poly (vinyl chloride) (PVC U) pipes to dichloromethane at a specified temperature (DCMT). It is applicable to all PVC U pipes, irrespective of their intended use. The method can be used as a rapid means of quality control during manufacture.

ZWS ISO 9855:2000
Ambient air – Determination of the particular lead contact of aerosols collected on filters – Atomic absorption spectrometric method
Price Code: Gr. 4
7 pages
Identical to ISO 9855:1993

Specifies a method based on acid digestion and atomic absorption spectrometry for the chemical analysis of lead samples collected of filters from ambient air.

ZWS ISO 9874:2009
Milk determination of total phosphorus content – Method using molecular absorption spectrometry
Price Code: Gr. 3
7 pages
Identical to ISO 9874:2006

Specifies a molecular absorption spectrometric method for the determination of the total phosphorus content of milk.

ZWS ISO 9884:2003
Tea sacks
Part 1: Reference sack for palletized and containerized transport of tea
Price Code: Gr. 4
6 pages
Identical to ISO 9884:2003

Specifies the materials, construction and dimensions of a reference sacks suitable for the palletized and containerized transport of tea.

Part 2: Performance specification for sacks for palletized and containerized transport of tea.
Price Code: Gr. 4
12 pages
Identical to ISO 9884-1:1999

Specifies requirements and tests to determine the suitability of sack for the palletized and containerized transport of tea on standard pallets of standard unit load size in standard contain.

ZWS ISO 9934:2016
Non –destructive testing – magnetic particle testing
Part 1: General principles
Price Code: Gr. 5
14 pages
Identical to ISO 9934:2013

Specifies the surface preparation of the part to be tested, magnetization techniques requirements and application of the detection media and the recording and interpretation of results..

Part 2: Detection media
Price Code: Gr. 7
21 pages

Specifies the significant properties of magnetic particle testing products (including magnetic ink, powder, carrier liquid, contrast aid paints) and the methods for checking their properties.

Part 3: Equipment
Price Code: Gr. 5
12 pages

Specifies the properties to b provided by the equipment supplier, minimum requirements for application and the method of measuring certain parameters.

ZWS ISO 10001:2018
Quality management – Customer satisfaction – Guidelines for codes of conduct for organizations
Price Code: Gr.10
20 pages
Identical to ISO 10001:2018

Provides guidance for planning, designing, developing, implementing, maintaining and improving customer satisfaction codes of conduct.It is applicable to product related codes containing promises made to consumers by an organization concerning its behavior.Such promises and related provisions are aimed at enhanced customer satisfaction.

ZWS ISO 10002:2018
Quality management – Customer satisfaction – Guidelines for complaints handling in organizations.
Price Code: Gr. 10
29 pages
Identical to ISO 10002:2018
Supercedes ZWS ISO 10002:2004

Provides guidance on the process of complaints handling related to products within an organization, including planning, design, operation, maintenance and improvement.

ZWS ISO 10003:2018
Quality management – Customer satisfaction – Guidelines for dispute resolution external to organizations
Price Code: Gr. 10
35 pages
Identical to ISO 10003:2018
Supercedes ZWS ISO 10003:2009

Provides guidance for an organization to plan, design, develop, operate, maintain and improve an effective and efficient dispute-resolution process for complaints that have been resolved by the organization.

ZWS ISO 10004:2018
Quality management – Customer satisfaction – Guidelines for monitoring and measuring
Price Code: Gr. 10
35 pages
Identical to ISO 10004:2018
Replacecs ZWS ISO 10004:2012

Provides guidance in defining and implementing processes to monitor and measure customer satisfaction.Intended for use by organizations regardless of type,size or product provided.The focus of this international standards is on customers external to the organization.

ZWS ISO 10005:2018
Quality management – Guidelines for quality plans
Price Code: Gr. 10
28 pages
Identical to ISO 10005:2018
Replaces ZWS ISO 10005:2005

Contains guidelines to assist suppliers in the preparation, review acceptance and revision of quality plans.

ZWS ISO 10006:2017
Quality Management - Guidelines for quality management in projects
Price Code: Gr. 10
34 pages
Supersedes ZWS ISO 10006:2003

This document gives guidelines for the application quality management in projects. It is applicable to organizations working on projects of varying complexity, small or large, of short or long duration, being an individual project to being part of a programme or portfolio of projects, in different environments, and irrespective of the kind of product/service or process involved, with the intention of satisfying project interested parties by introducing quality management in projects.

ZWS ISO 10007:2017
Quality management systems – Guidelines for configuration management
Price Code: Gr. 5
12 pages
Identical to ISO 10007:2017
Supercedes ZWS 10007:2003

Gives guidance on the use of configuration a management within an organization applicable to the support of products and services from concept to disposal.

ZWS ISO 10008:2022
Quality management – Customer satisfaction – Guidance for business-to-consumer electronic commerce transactions
PriceCode: Gr. 8
34 pages
Identical to ISO 10008:2022
Supercedes ZWS 10008:2013

This document gives guidance on planning, designing, developing, implementing, maintaining and improving an effective and efficient business-to-consumer electronic commerce transaction (B2C ECT) system within an organization. It is applicable to any organization engaged in, or planning to be engaged in, a B2C ECT, regardless of size, type and activity. The focus of this document is on organizations that directly offer and provide products and services to consumers. This document aims to enable organizations to set up a fair, effective, efficient, transparent and secure B2C ECT system, in order to enhance consumers' confidence in B2C ECTs and increase the satisfaction of consumers. It is aimed at B2C ECTs concerning consumers as a sub-set of customers. The guidance given in this document can complement an organization's quality management system.

ZWS ISO 10010:2022
Quality management - Guidance to understand, evaluate and improve organizational quality culture
Price Code: Gr. 6
19 pages
Identical to ISO 10010:2022

This document gives guidance on the evaluation, development and improvement of organizational quality culture to help an organization to achieve sustained success. This document takes into account the fundamental concepts and quality management principles, with specific focus on people engagement and leadership. The recommendations in this document are generic and are intended to be applicable to any organization, regardless of its size, industry, location, maturity or the products and services it provides.

ZWS ISO 10012:2003
Measurement management systems – Requirements for measurement processes and measuring equipment.
Price Code: Gr. 6
19 pages
Identical to ISO 10012:2003

Specifies generic requirements and provides guidance for the management of measurement processes and metrological confirmation

of measuring equipment used in support and demonstrate compliance with metrological requirements.

ZWS ISO 10013:2021
Quality management systems – Guidance for documented information
Price Code: Gr. 6
14 pages
Identical to ISO 10013:2001
Superseeds ZWS ISO 10013:2012

Provides guidelines for the development and maintenance of the documented information necessary to support an effective quality management system, tailored to the specific needs of the organization. This document can also be used to support other management systems, eg environmental or occupational health and safety management systems.

ZWS ISO 10014:2009
Quality management – Guidelines for realizing financial and economic benefits
Price Code: Gr.7
25 pages
Identical to ISO 10014:1998

Provides guidelines for realizing financial and economic benefits from the application of the ISO 9000 quality management principles.

ZWS ISO/TR 10015:2019
Quality management – Guidance for competence management and people development
Price Code: Gr 5
8 pages
Identical to ISO 10015:2019
Superseeds ZWS ISO/TR 10015:2000

Gives guidelines for an organization to establish, implement, maintatin and improve systems for competence management and people development to positively affect outcomes related to the conformity of products and services and the needs and expectations of relevant interested parties.

ZWS ISO 10017:2021
Quality management - Guidance on statistical techniques for ISO 9001:2015
Price Code: Gr.7
31 pages
Identical to ISO 10017:2021

This document gives guidelines for the selection of appropriate statistical techniques that can be useful to an organization, irrespective of size or complexity, in developing, implementing, maintaining and improving a quality management system in conformity with ISO 9001:2015. This document does not provide guidance on how to use the statistical techniques.

ZWS ISO 10018:2020
Quality Management – Guidance on people engagements
Price Code: Gr. 6
12 pages
Identical to ISO 10018:2020
Supersedes ZWS ISO 10018:2012

Provides guidance on engaging people in an organization's quality management system and on enhancing their involvement and competence within it. This international standard is applicable to any organization, regardless of size, type or activity.

ZWS ISO/TR 10019:2005
Guidelines for the selection of quality management systems consultants and use of their services
PriceCode: Gr. 5
13 pages
Identical to ISO 10019:2005

Provides guidance for the selection of quality management system consultants and the use of their services.

ZWS ISO TS 10020:2022
Quality management Systems - Organizational change management - Processes
PriceCode: Gr. 6
41 pages
Identical to ISO TS 10020:2022

This document specifies processes that can be used to govern, manage and implement organizational change management (OCM) for organizations, projects or smaller activities. It comprises generic process descriptions that describe the OCM processes. Supporting diagrams describing the processes are also provided. This document is applicable, but not limited, to change sponsors, change agents, change team members and project managers, particularly those responsible for governing, managing and implementing organizational change.

ZWS ISO 10144: 2018
Steels for the reinforcement and prestressing of concrete - Certification scheme for steel bars and wires
Price Code: Gr. 5
8 pages
Identical to ISO 10144:2018

This document specifies rules for a certification scheme for continuous production of steel bars, rods and wires for the reinforcement of concrete structures in order to verify conformity with requirements specified in product standards, such as ISO 6935 1 and ISO 6935 2.
It includes requirements for the production process and management system assessment activities. A product certification scheme for continuous production consists of the following stages:
—initial evaluation;
—review of evidence of conformity;
—certification decision and attestation;
—surveillance activities.

ZWS ISO 10156:2017
Gas cylinders -Gases and gas mixtures - Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets
Price Code: Gr. 7
34 pages
Identical to ISO 10156:2017

This document specifies methods for determining whether or not a gas or gas mixture is flammable in air and whether a gas or gas mixture is more or less oxidizing than air under atmospheric conditions. This document is intended to be used for the classification of gases and gas mixtures including the selection of gas cylinder valve outlets.
This document does not cover the safe preparation of these mixtures under pressure and at temperatures other than ambient.

ZWS ISO 10272-1:2017
Microbiology of the food chain – Horizontal method for the detection and enumeration of Listeria monocytogenes and of campylobacter SPP
Part 1: Detection method
Price Code: Gr.7
21 pages
Identical to ISO 10272-1:2017

Specifies a horizontal method for the detection by enrichment or direct plating of campylobacter spp.

ZWS ISO 10297:2024
Gas cylinders -Cylinder valves - Specification and type testing
Price Code: Gr. 8
70 pages
Identical to ISO 10297:2024

This document specifies design, type testing and marking requirements for:
a) cylinder valves intended to be fitted to refillable transportable gas cylinders;
b) main valves (excluding ball valves) for bundles of cylinders;
c) cylinder valves or main valves with integrated pressure regulator (VIPR);
NOTE 1: This includes the following specific VIPR designs where:
1) The pressure regulating system is acting as the primary valve operating mechanism (VIPR type B). This also includes designs where closure of the primary valve operating mechanism is obtained by closing the seat of the pressure regulating mechanism.
2) The primary valve operating mechanism is located at the low-pressure side of the pressure regulating system (VIPR type C).
d) valves for pressure drums and tubes;
which convey compressed, liquefied or dissolved gases.
NOTE 2: Where there is no risk of ambiguity, cylinder valves, main valves, VIPRs and valves for pressure drums and tubes are addressed with the collective term "valves" within this document.
This document does not apply to
—valves for cryogenic equipment, portable fire extinguishers and liquefied petroleum gas (LPG);
—quick-release cylinder valves (e.g. for fire-extinguishing, explosion protection and rescue applications) - requirements for quick-release cylinder valves are specified in ISO 17871 which contains normative references to this document;
—self-closing cylinder valves and ball valves.
NOTE 3: Requirements for valves for cryogenic vessels are specified in ISO 21011 and at a regional level, e.g. in EN 1626. Requirements for LPG valves are specified in ISO 14245 or ISO 15995. Requirements for self-closing cylinder valves are specified in ISO 17879. Requirements for ball valves are specified in ISO 23826. Requirements for valves for portable fire extinguishers at a regional level are specified, for example, in the EN 3 series.
This document only covers the function of a valve as a closure. Other functions that are possibly integrated in the valve can be covered by other standards. Such standards do however not constitute requirements according to this document.
NOTE 4: Definition of and specific requirements for VIPRs in addition to those that are given in this document are specified in ISO 22435 for industrial applications or ISO 10524 3 for medical applications. Similarly, certain specific requirements for residual pressure valves (RPV) with or without a non-return function in addition to those that are given in this document are given in ISO 15996.
NOTE 5: Certain specific requirements for valves for breathing apparatus in addition to those that are given in this document are specified at a regional level, for example, in the EN 144 series. Certain specific requirements for quick-release valves for fixed fire-fighting systems in addition to those that are given in this document are specified in ISO 16003 and at a regional level, for example, in EN 12094–4.
NOTE 6: Requirements for manufacturing tests and examinations of valves covered by this document are given in ISO 14246.

ZWS ISO 10298:2018
Gas cylinders - Gases and gas mixtures- Determination of toxicity for the selection of cylinder valve outlets
Price Code: Gr. 8
20 pages
Identical to ISO 10298:2018

This document lists the best available acute-toxicity data of gases taken from a search of the current literature to allow the classification of gases and gas mixtures for toxicity by inhalation.

ZWS ISO 10298:2018/Amd.1:2021
Gas cylinders - Gases and gas mixtures- Determination of toxicity for the selection of cylinder valve outlets
Price Code: Gr. 8
7 pages
Identical to ISO 10298/Amd.1:2021

This document lists the best available acute-toxicity data of gases taken from a search of the current literature to allow the classification of gases and gas mixtures for toxicity by inhalation.

ZWS ISO 10302:2011
Acoustics – Measurement of airborne noise emitted and structure-borne vibration induced by small air-moving devices.
Part 1: Airborne noise measurements
Price Code: Gr 7
37 pages
Identical to ISO 10302.1:2011

Specifies methods for measuring the airborne noise emitted by small air-moving devices (AMD), such as those for cooling electronic, electrical, and mechanical equipment where the sound power level of the AMD is of interest.

Part 2: Structure-borne vibration measurement
Price Code: Gr 6
25pages
Identical to ISO 10302.2:2011

Covers vibration levels from small air-moving devices with mounting footprints of less than 0.48m x 0,90 m for the full size test plenum defined in part 1 and less than 0.18m x 0.3m for the half-size plenum.

ZWS ISO 10313:2000
Ambient air – Determination of the mass concentration of ozone – chemilumescene method.
Price Code: Gr 4
8 pages
Identical to ISO 10396:1993

Specifies a chemiluminiscene method for the determination of the mass concentration of ozone in ambient air.

ZWS ISO 10396:2000
Stationary source emissions – Sampling for the automated determination of gas concentrations.
Price Code: Gr 6
15 pages
Identical to ISO 10396:1993

Specifies procedures and equipment that will permit, within certain limits, representative sampling for the automated determination of gas concentrations of effluent gas streams.

ZWS ISO 10397:2000
Stationery souce emissions – Determination of asbestos plant emission method by fibre count measurement.
Price Code: Gr 6
19 pages
Identical to ISO 10397:2000

Specifies a method, using a fibre count technique, for the assessment of fibre concentrations in flowing gas streams in ducts, chimneys or flues from industrial process using asbestos.

ZWS ISO 10462:2013
Gas cylinders -Acetylene cylinders - Periodic inspection and maintenance
Price Code: Gr 7
22 pages
Identical to ISO 10462:2013

This International Standard specifies requirements for the periodic inspection of acetylene cylinders as required for the transport of dangerous goods and for maintenance in connection with periodic inspection. It applies to acetylene cylinders with and without solvent and with a maximum nominal water capacity of 150 l.
NOTE: The limitation of 150 l is derived from the definition of cylinder in Reference [1].

ZWS ISO 10474:2013
Steel and steel products — Inspection documents
Price Code: Gr 4
5 pages
Identical to ISO 10474:2013
Replaces COMESA ZWS HS ISO 10474:2006

This International Standard defines the different types of inspection documents supplied to the purchaser, in accordance with the requirements of the order, for the delivery of steel products. This International Standard is to be used in conjunction with other International Standards which specify the general technical delivery conditions:
—for steel and steel products, see ISO 404;
—for steel castings, see ISO 4990.
NOTE: This International Standard can also apply to other products.

ZWS ISO 10523: 2008
Water quality — Determination of pH
Price Code: Gr 5
13 pages
Identical to ISO 10523:2008
Supersedes ZWS 459:1993

This International Standard specifies a method for determining the pH value in rain, drinking and mineral
waters, bathing waters, surface and ground waters, as well as municipal and industrial waste waters, and
liquid sludge, within the range pH 2 to pH 12 with an ionic strength below I = 0,3 mol/kg (conductivity:
y25 °C < 2 000 mS/m) solvent and in the temperature range 0 °C to 50 °C.

ZWS ISO 10542: Part 1:2012/Amd 1:2021
Technical systems and aids for disabled or handicapped persons -Wheelchair tiedown and occupant-restraint systems: Part 1: Requirements and test methods for all systems
Price Code: Gr 8
31 pages
Identical to ISO 10542: Part 1:2012/Amd 1:2021

This part of ISO 10542 specifies design and performance requirements and associated test methods for wheelchair tiedown and occupant-restraint systems (WTORS), as well as requirements for product marking and labelling and manufacturers' instructions and warnings to installers and consumers. It is applicable to all WTORS that use belt-type occupant restraints that are intended for occupied wheelchairs used as forward-facing seats by passengers and drivers of motor vehicles. This part of ISO 10542 is applicable to WTORS intended for use with all types of manual and powered wheelchairs, including three- and four-wheeled scooters, used by children and adults with a body mass equal to or greater than 22 kg. It is applicable also to WTORS designed for limited use with a particular make or model of wheelchair. This part of ISO 10542 is applicable primarily to complete WTORS, but portions can also be applied to components and subassemblies sold separately and for replacement parts.

ZWS ISO 10542: Part 1:2012/Cor 1:2013
Technical systems and aids for disabled or handicapped persons — Wheelchair tiedown and occupant-restraint systems
Part 1: Requirements and test methods for all systems
Price Code: Gr 8
1 pages
Identical to ISO 10542-1:2012

This part of ISO 10542 specifies design and performance requirements and associated test methods for wheelchair tiedown and occupant-restraint systems (WTORS), as well as requirements for product marking and labelling and manufacturers' instructions and warnings to installers and consumers. It is applicable to all WTORS that use belt-type occupant restraints that are intended for occupied wheelchairs used as forward-facing seats by passengers and drivers of motor vehicles. This part of ISO 10542 is applicable to WTORS intended for use with all types of manual and powered wheelchairs, including three- and four-wheeled scooters, used by children and adults with a body mass equal to or greater than 22 kg. It is applicable also to WTORS designed for limited use with a particular make or model of wheelchair. This part of ISO 10542 is applicable primarily to complete WTORS, but portions can also be applied to components and subassemblies sold separately and for replacement parts.

ZWS ISO 10544:2024
Cold-reduced steel wire for the reinforcement of concrete and the manufacture of welded fabric
Price Code: Gr 7
16 pages
Identical to ISO 10544:2024

This document specifies technical requirements for cold-reduced steel wire designed for the reinforcement of concrete or for use in welded fabric. Two steel grades, CRB500 and CRB540H are defined as examples. Other grades can be used. This document is applicable to wire made from rod by working through dies or rollers. The production process is at the discretion of the manufacturer. For wire supplied in coil form, this document is applicable to the straightened product. Wires produced from finished products, such as plates and railway rails, are outside the scope of this document.

ZWS ISO 10555:2005
Intravascular catheters – Sterile and single use catheters
Part 1: General requirements
Price Code: Gr 4
9 pages
Identical to ISO 10555-1:1995

Specifies general requirements for intravascular catheters, supplied in the sterile condition and intended for single use, for any application.

Part 2: Anglographic catheters
Price Code: Gr 3
5 pages
Identical to 10555-2:1996

Specifies requirements for anglographic catheters supplied in the sterile condition, and intended for single use.

Part 3: Central venous catheters
Price Code: Gr 3
5 pages
Identical to ISO 10555-3:1996

Specifies requirements for central venous catheters supplied in the sterile condition and intended for single use.

Part 4: Balloon dilatation catheters
Price Code: Gr. 4
6 pages
Identical to ISO 10555-5:1996

Specifies requirements for balloon dilatation catheters in the sterile condition and intended for single use.

Part 5: Over-needle peripheral catheters
Price Code: Gr 4
Identical to ISO 10555.5:2013
10 pages
Replaces ISO 10555-5:1996

Specifies requirements for over the needle peripheral intravascular catheters, intended for accessing the peripheral vascular system, supplied in the sterile condition and intended for single use.

Part 6:2015 Subcutaneous implanted ports
Price Code: Gr 6
14 pages
Identical to ISO 10555.6:2015

Specifies requirements, performance, and user safety issues related to subcutaneous implanted ports and catheters for intravascular long term use supplied in sterile condition and intended for single use.

ZWS ISO 10667:2020
Assessment service delivery- Procedures and methods to assess people in work and organisational settings
Part 1: Requirements for the client
Price Code: Gr 7
24 pages
Identical to ISO 10667-1:2020

Establishes requirements and guidance for clients working with one or more service provider(s) to carry out the assessment of an individual, a group or an organization for work related purposes. The document enables the client to base its decisions on sound assessment results.

ZWS ISO 10667:2020
Assessment service delivery- Procedures and methods to assess people in work and organisational settings
Part 2: Requirements for service providers
Price Code: Gr 7
24 pages
Identical to ISO 10667-2:2020

Establishes requirements and guidance for clients working with one or more service provider(s) to carry out the assessment of an individual, a group or an organization for work related purposes. The document enables the client to base its decisions on sound assessment results.

ZWS ISO 10668:2010
Brand valuation — Requirements for monetary brand valuation
Price Code: Gr. 5
11 pages
Identical to ISO 10668:2010

This International Standard specifies requirements for procedures and methods of monetary brand value measurement. This International Standard specifies a framework for brand valuation, including objectives, bases of valuation, approaches to valuation, methods of valuation and sourcing of quality data and assumptions. It also specifies methods for reporting the results of such valuation.

ZWS ISO 10727:2003
Tea and instant tea in solid form – Determination of caffeine content – Method using high-perfomance liquid chromatography
Price Code: Gr 4
8 pages
Identical to ISO 10727:2002

Specifies a method for the determination by high-perfomance liquid chromatography (HPLC) of the caffeine content of teas and instant teas. Applicable to green tea, black tea and decaffeinated tea products.

ZWS ISO 10799: Part 1:2011
Cold-formed welded structural hollow sections of non-alloy and fine grain steels
Part 1:2011: Technical delivery conditions
Price Code: Gr 7
26 pages
Identical to ISO 10799-1:2011
Replaces Comesa ZWS HS ISO 4019:2006

This part of ISO 10799 specifies the technical delivery requirements for cold-formed welded structural hollow sections of circular, square or rectangular form. It is applicable to structural hollow sections formed cold without subsequent heat treatment.
The grades, chemical composition and mechanical properties for non-alloy steels and fine grain steels are given in Annexes A and B, respectively.
NOTE 1: For the requirements for tolerances, dimensions and sectional properties, see ISO 10799-2.
NOTE 2: For hot finished structural hollow sections, see ISO 12633-1.

ZWS ISO 10799: Part 2:2011
Cold-formed welded structural hollow sections of non-alloy and fine grain steels —
Part 2: Dimensions and sectional properties
Price Code: Gr 7
28 pages
Identical to ISO 10799-2:2011
Replaces Comesa ZWS HS ISO 4019:2006

This part of ISO 10799 specifies the tolerances for cold-formed welded circular, square and rectangular structural hollow sections, and gives the dimensions and sectional properties for a range of standard sizes.
NOTE: For the technical delivery requirements, see ISO 10799-1.

ZWS ISO 10816: Part 7:2009
Mechanical vibration - Evaluation of machine vibration by measurements on non-rotating parts:
Part 7: Rotodynamic pumps for industrial applications, including measurements on rotating shafts
Price Code: Gr 6
17 pages
Identical to ISO 10816-7:2009

This part of ISO 10816 gives instructions for the evaluation of vibration on rotodynamic pumps for industrial applications with nominal power above 1 kW. It defines the special requirements for evaluation of vibration when the vibration measurements are made on non-rotating parts (bearing housing vibration). It provides specific guidance for assessing the severity of vibration measured on bearing housings of rotodynamic pumps in situ and for the acceptance test at the manufacturer's test facility or in the plant. This part of ISO 10816 also gives general information and guidelines for assessing relative shaft vibration of the rotating shaft. This part of ISO 10816 specifies zones and limits for the vibration of horizontal and vertical pumps irrespective of their support flexibility. The general evaluation criteria are valid for operational monitoring of rotodynamic pumps and for acceptance tests) in situ or at the manufacturer's test facility if specified. For the acceptance test at the manufacturer's test facility, special conditions are given. For monitoring the vibration values during long-term operation, two criteria are provided for assessing the machine vibration. One criterion considers the magnitude of the observed vibration and the second considers changes in magnitude. The evaluation criteria are applicable for the vibration produced by the pump itself and not for vibration which is transmitted to the pump from external sources. The criteria mainly serve to ensure a reliable, safe long-term operation of the pump, simultaneously minimizing harmful effects on connected devices. Additionally, recommendations are given for defining operational limits and setting alarm and trip values. For pump units with integrated electrical motors (impeller directly on the motor shaft or impeller shaft rigidly connected to the motor shaft), this part of ISO 10816 applies to the whole coupled unit.
For flexibly coupled motors, this part of ISO 10816 is applicable for the pump only. Also, separately mounted drivers are not within the scope of this part of ISO 10816. Those drivers are dealt with in ISO 10816 3. The following types of pumps are excluded from this part of ISO 10816:
- reciprocating and rotating positive displacement pumps;
- reciprocating engine driven pumps;
- pumps in hydraulic power generating and pumping plants with power above 1 MW (see ISO 7919 5[4] and ISO 10816 5);
- solids handling, slurry and submersible pumps.

Torsional vibration is not dealt with in this part of ISO 10816.

ZWS ISO 10845
Construction Procurement
Part 1: 2010 Processes , Methods and Procedures
Price Code: Gr.9
111 pages
Identical to ISO 10845.1:2010

Describes processes,methods and procedures for the establishment within an organization of a procurement system that is fair,equitable,transparent,competitive and cost-effective.

Part 2: 2011 Formatting and compilation of procurement documentation
Price Code: Gr. 7
41 pages
Identical to ISO 10845.2:2011

Establishes in respect of supply ,service and engineering and construction works contracts at both main and subcontract levels.

Part 3: 2011 Standard conditions of tender
Price Code:Gr. 7
59 pages
Identical to ISO 10845.3:2011

Sets out standard conditions of tender which bind the employer and tenderer to behave in a particular manner,establish what a tenderer is required to do in order to submit a compliant tender,make known the evaluation criteria to tenders and establish the manner in which the employer conducts the process of offer and acceptance and provide the necessary feedback to tenderers on the outcomes of the process.

Part 4: 2011 Standard conditions for the calling for expressions of interest
Price Code: Gr. 6
20 pages
Identical to ISO 10845.4:2011

Sets out standard conditions for the calling for expressions of interest which bindthe employer and respondent to behave in a particular manner,establish what is required for a respondent to submit a compliant submission,make known to respondents the evaluation criteria and establish the manner in which the employer conducts the process of calling for expressions of interest.

Part 5: 2011 Participation of targeted enterprises in contracts
Price Code: Gr.7
48 pages
Identical to ISO 10845:2011

Establishes a key performance indicator in the form of a contract participation goal (CPG),relating to the engagement of targeted enterprises on a contract for the provision of goods,services or engineering and construction works.A CPG may be used to measure the outcomes of a contract in relation to the engagement of targeted enterprises or to establish a target level of performance for the contractor to achieve or exceed in the performance of a contract.

Part 6: 2011 Participationof targeted partners in joint ventures in contractors
Price Code: Gr. 7
42 pages
Identical to ISO 10845.6:2011

Establishes a key performance indicator,in the form of a contract participation goal ,relating to the engagement of targeted partners in a joint venture on a contract for the provision of goods, services or engineering and construction works.

Part 7: 2011 Participation of local enterprises and labour in contracts
Price Code: Gr. 7
39 pages
Identical to ISO 10845.7:2011

Establishes a key performance indicator in the form of a contract participation goal (CPG) relating to the engagement of local enterprises and labour on a contractfor the provision of services or engineering and construction works.

Part 8: 2011 Participation of targeted labour in contracts
Price Code: Gr. 6
27 pages
Identical to ISO 10845.8:2011

Establishes a key performance indicator ,in the form of a contract participation goal(CPG),relating to the engagement of targeted labour on a contract for the provision of services or engineering and construction works.

ZWS ISO 10961:2019
Gas cylinders - Cylinder bundles - Design, manufacture, testing and inspection
Price Code: Gr.7
27 pages
Identical to ISO 10961:2019

This document specifies the requirements for the design, construction, testing and initial inspection of a transportable cylinder bundle. It is applicable to cylinder bundles containing cylinders containing compressed gas, liquefied gas and mixtures thereof. It is also applicable to cylinder bundles for acetylene. Additional requirements for acetylene cylinder bundles containing acetylene in a solvent are provided in Annex B. This document does not, however, cover acetylene cylinder bundles with solvent-free acetylene cylinders. This document specifies the additional requirements that apply when individual cylinders are assembled into a bundle. Unless otherwise stated, individual cylinders within a cylinder bundle conform to applicable standards for single cylinders. This document is intended primarily for industrial gases other than liquefied petroleum gas (LPG), but it can also be used for LPG. This document does not apply to packages in which cylinders are manifolded together in a frame that is designed to be fixed permanently to a road vehicle, to a railway wagon or to the ground as a customer storage vessel. It also does not apply to cylinder bundles that are designed for use in extreme environmental or operational conditions (e.g. offshore cylinder bundles) when additional and extraordinary requirements are imposed to maintain safety standards, reliability and performance.

ZWS ISO 10983:2014
Timber - Finger joints - Minimum production requirements and testing methods
Price Code: Gr.6
16 pages
Identical to ISO 10983:2014

This International Standard specifies minimum requirements for the manufacture and testing of bonded finger joints in structural wood products such as glued laminated timber, cross-laminated timber, and finger-jointed timber. Although most finger joints are produced in coniferous species (softwoods), this International Standard also applies to broad-leafed species (hardwoods) where information is available to enable them to be satisfactorily bonded.
It does not cover impressed (die-formed) joints and, in the case of laminated timber products, it applies only to individual laminations. Large finger joints in glued laminated timber are not covered by this International Standard.

ZWS ISO 11070:2014
Sterile single-use intravascular introducers, dilators and guidewires
Price Code: Gr. 7
25 pages
Identical to ISO 11070:2014
Specifies requirements for introducer needles, introducer catheters, sheath introducers, guidewires and dilators supplied in the sterile condition, and intended for single use in conjuction with intravascular catheters specified in ISO 10555.1.

ZWS ISO/ IEEE 11073: Part 40102:2022
Health informatics -device interoperability
Part 40102:2022: Foundational - cybersecurity - capabilities for mitigation
Price Code: Gr. 7
20 pages
Identical to ISO/IEEE 11073-40102:2011

Within the context of secure plug-and-play interoperability, cybersecurity is the process and capability of preventing unauthorized access or modification, misuse, denial of use, or the unauthorized use of information that is stored on, accessed from, or transferred to and from a PHD/PoCD. The capability part of cybersecurity is information security controls related to both digital data and the relationships to safety and usability. For PHDs/PoCDs, this standard defines a security baseline of application layer cybersecurity mitigation techniques for certain use cases or for times when certain criteria are met. This standard provides a scalable information security toolbox appropriate for PHD/PoCD interfaces, which fulfills the intersection of requirements and recommendations from National Institute of Standards and Technology (NIST) and the European Network and Information Security Agency (ENISA). This standard maps to the NIST cybersecurity framework [B15]; IEC TR 80001-2-2 [B8]; and the Spoofing, Tampering, Repudiation, Information Disclosure, Denial of Service, and Elevation of Privilege (STRIDE) classification scheme. The mitigation techniques are based on the extended CIA triad (Clause 4) and are described generally to allow manufacturers to determine the most appropriate algorithms and implementations.

ZWS ISO 11082:1992
Certification scheme for welded fabric for the reinforcement of concrete structures
Price Code: Gr. 5
14 pages
Identical to ISO 11082:1992

This International Standard specifies rules for a certification scheme for continuous production of welded fabric for ordinary reinforcement of concrete structures, in order to verify the conformity with requirements specified in product standards such as ISO 6935-3.
A certification scheme for continuous production consists of the following stages:
— suitability testing (see clause 4);
— internal inspection by the manufacturer (see clause 5);
— inspection and supervision by an external body (see 6).

ZWS ISO 11093: Part 9:2000
Paper and board – Testing of cores
Part 9: Determination of flat crash resistance
Price Code: Gr 1
2 pages
Identical to ISO 11093-9:2000

Specifies a method for determining the maximum flat crush resistance of wound paper and board cores.

ZWS ISO 11117:2019
Gas cylinders — Valve protection caps and guards — Design, construction and tests
Price Code: Gr 6
22 pages
Identical to ISO 11117:2019

This document specifies the requirements for valve protection caps and valve guards used on cylinders for liquefied, dissolved or compressed gases. Valve protection caps and valve guards are some of the options available to protect cylinder valves, including valves with integral pressure regulators (VIPRs) during transport. This document is applicable to valve protection caps and valve guards which inherently provide the primary protection of a cylinder valve. It can also be used to test other equipment (e.g., handling devices) attached to cylinder packages, even in cases where the cylinder valve is inherently able to withstand damage without release of the content. This document excludes protection devices for cylinders with a water capacity of 5 l or less and cylinders whereby the protection device is fixed by means of lugs welded or

brazed to the cylinder, or is welded or brazed directly to the cylinder. This document does not cover valve protection for breathing apparatus cylinders.
NOTE: Small cylinders (e.g., medical cylinders) are commonly transported in an outer-packaging (e.g., pallet) to meet transport regulations.
This document does not specify requirements that could be necessary to enable the valve protection device to be used for lifting the cylinder.

ZWS ISO 11119: Part 1:2020
Gas cylinders - Design, construction and testing of refillable composite gas cylinders and tubes
Part 1: Hoop wrapped fibre reinforced composite gas cylinders and tubes up to 450L
Price Code: Gr 7
46 pages
Identical to ISO 11119-1:2020

This document specifies minimum requirements for the material, design, construction and workmanship, manufacturing processes, examination and testing at time of manufacture for:
—type 2 composite hoop wrapped cylinders or tubes with a load-sharing metal liner and composite reinforcement on the cylindrical portion only;
—water capacities up to 450 l;
—the storage and conveyance of compressed or liquefied gases;
—cylinders and tubes with composite reinforcement of carbon fibre, aramid fibre or glass fibre (or a mixture thereof) within a matrix or steel wire to provide circumferential reinforcement;
— a minimum design life of 15 years.
This document does not address the design, fitting, and performance of removable protective sleeves.
NOTE 1: References to cylinders in this document include composite tubes if appropriate.
NOTE 2: ISO 11439 applies to cylinders intended for use as fuel containers on natural gas vehicles and ISO 11623 covers periodic inspection and re-testing of composite cylinders.

ZWS ISO 11119: Part 2:2020
Gas cylinders - Design, construction and testing of refillable composite gas cylinders and tubes
Part 2: Fully wrapped fibre reinforced composite gas cylinders and tubes up to 450 l with load-sharing metal liners
Price Code: Gr 7
50 pages
Identical to ISO 11119-2:2020

This document specifies minimum requirements for the material, design, construction and workmanship, manufacturing processes, examination and testing at time of manufacture for:
—type 3 fully wrapped cylinders or tubes with a load-sharing metal liner and composite reinforcement on both the cylindrical portion and the dome ends;
—water capacities up to 450 l;
—storage and conveyance of compressed or liquefied gases;
—cylinders and tubes with composite reinforcement of carbon fibre, aramid fibre or glass fibre (or a mixture thereof) within a matrix;
—a minimum design life of 15 years.
This document does not address the design, fitting, and performance of removable protective sleeves.
This document does not apply to cylinders with welded liners.
NOTE 1: References to cylinders in this document include composite tubes if appropriate.
NOTE 2: ISO 11439 applies to cylinders intended for use as fuel containers on natural gas vehicles and ISO 11623 covers periodic inspection and re-testing of composite cylinders.

ZWS ISO 11119: Part 3:2020
Gas cylinders- Design, construction and testing of refillable composite gas cylinders and tubes
Part 3: Fully wrapped fibre reinforced composite gas cylinders and tubes up to 450 l with non-load-sharing metallic or non-metallic liners or without liners
Price Code: Gr 7
56 pages
Identical to ISO 11119-3:2020

This document specifies minimum requirements for the material, design, construction and workmanship, manufacturing processes, examination and testing at time of manufacture for:
—type 4 composite fully wrapped cylinders or tubes with a non-load sharing liner and composite reinforcement on both the cylindrical portion and the dome ends;
—type 5 fully wrapped cylinders or tubes without liners and with a test pressure of less than 60 bar and composite reinforcement on both the cylindrical portion and the dome ends;
—water capacities up to 450 l;
—for the storage and conveyance of compressed or liquefied gases;
—cylinders and tubes with composite reinforcement of carbon fibre, aramid fibre or glass fibre (or a mixture thereof) within a matrix;
—a minimum design life of 15 years.
Cylinders and tubes manufactured and tested according to this document are not intended to contain toxic, oxidizing or corrosive gases.
This document does not address the design, fitting and performance of removable protective sleeves.
NOTE 1: References to cylinders in this document include composite tubes if appropriate.
NOTE 2: ISO 11439 applies to cylinders intended for use as fuel containers on natural gas vehicles and ISO 11623 covers periodic inspection and re-testing of composite cylinders.

ZWS ISO 11119: Part 4:2016
Gas cylinders- Design, construction and testing of refillable composite gas cylinders and tubes
Part 3: Fully wrapped fibre reinforced composite gas cylinders and tubes up to 450 l with non-load-sharing metallic or non-metallic liners or without liners
Price Code: Gr 7
56 pages
Identical to ISO 11119-4:2016

This part of ISO 11119 specifies requirements for composite gas cylinders with load-sharing welded liners between 0,5 l and 150 l water capacity and a maximum test pressure of 450 bar for the storage and conveyance of compressed or liquefied gases.
NOTE 1: 1 bar = 105Pa = 105N/m2.
The cylinders are constructed in the form of a welded stainless steel liner or welded ferritic steel liner or welded aluminium alloy liner and overwrapped with carbon fibre or aramid fibre or glass fibre (or a mixture thereof) in a matrix to provide longitudinal and circumferential reinforcement. The cylinders in this part of ISO 11119 are type 3 fully wrapped cylinders with a load-sharing metal liner and composite reinforcement on both the cylindrical portion and the dome ends. Cylinders produced in accordance with this part of ISO 11119 have a minimum design life of 15 years. Cylinders with test pressure of up to 60 bar have an unlimited design life. This part of ISO 11119 does not address the design, fitting, and performance of removable protective sleeves. This part of ISO 11119 does not apply to cylinders with seamless liners. For seamless liners, ISO 11119 2 applies.
NOTE 2: ISO 11623 covers periodic inspection and re-testing of composite cylinders.

ZWS ISO 11133:2014
Microbiology of food, animal feed and water – Preparation, Production, storage and performance testing of culture media
Price Code: Gr 9
91 pages
Identical to ISO 11133:2014

Specifies the requirements for the preparation of culture media intended for the microbiological analysis of food, animal feed, and samples from the food or feed production environment as well as all kinds of water intended for consumption or used in food production.

ZWS ISO 11238:2024
Health informatics - Identification of medicinal products - Data elements and structures for the unique identification and exchange of regulated information on substances
Price Code: Gr 8
61 pages
Identical to ISO 11238:2024

This document provides an information model to define and identify substances within medicinal products or substances used for medicinal purposes, including dietary supplements, foods and cosmetics. The information model can be used in the human and veterinary domain since the principles are transferrable. Other standards and external terminological resources are referenced that are applicable to this document.

ZWS ISO 11239:2023
Health informatics - Identification of medicinal products - Data elements and structures for the unique identification and exchange of regulated information on pharmaceutical dose forms, units of presentation
Price Code: Gr 7
29 pages
Identical to ISO 11239:2023

This document specifies:
—the data elements, structures and relationships between the data elements required for the exchange of information, which uniquely and with certainty identify pharmaceutical dose forms, units of presentation, routes of administration and packaging items (containers, closures and administration devices) related to medicinal products;
—a mechanism for the association of translations of a single concept into different languages, which is an integral part of the information exchange;
—a mechanism for the versioning of the concepts in order to track their evolution;
—rules to help regional authorities to map existing regional terms to the terms created using this document, in a harmonized and meaningful way.

ZWS ISO 11286:2003
Tea – Classification of grades by particle size analysis
Price Code: Gr 3
4 pages
Identical to ISO 10727:2002

Specifies a method for the classification of grades of tea according to an analysis of their particle size. May not be suitable for blends of tea.

ZWS ISO 11290:2017
Microbiology of the food chain – Horizontal method for the detection and enumeration of Listeria monocytogenes and Listeria SPP
Part 1: Detection method
Price Code: Gr.7
34 pages
Identical to ISO 11290
Specifies a horizontal method for the detection of L. monocytogenes and the detection of Listeria spp. (including L. monocytogenes).

Part 2: Enumeration method
Price Code: Gr. 7
29 pages
Identical to ISO 11290

Specifies a horizontal method for the enumeration of L. mono-cytogenes and the enumeration of Listeria spp. (including L. monocytogenes).

ZWS ISO 11363: Part 1:2018
Gas cylinders - 17E and 25E taper threads for connection of valves to gas cylinders
Part 1: Specifications
Price Code: Gr.5
15 pages
Identical to ISO 11363-1:2018

This document specifies dimensions and tolerances for taper screw threads of nominal diameter 17,4 mm (designated as 17E) and 25,8 mm (designated as 25E) used for the connection of valves to gas cylinders. It does not cover the connection requirements for
—mechanical strength,
—gas tightness, and
—capability of repeated assembly and dismounting operations.
Gauge inspection is covered by ISO 11363 2.

ZWS ISO 11363: Part 1:2018/Amd 1:2023
Gas cylinders - 17E and 25E taper threads for connection of valves to gas cylinders
Part 1: Specifications
Price Code: Gr.5
15 pages
Identical to ISO 11363-1/Amd 1:2023

This document specifies dimensions and tolerances for taper screw threads of nominal diameter 17,4 mm (designated as 17E) and 25,8 mm (designated as 25E) used for the connection of valves to gas cylinders. It does not cover the connection requirements for
—mechanical strength,
—gas tightness, and
—capability of repeated assembly and dismounting operations.
Gauge inspection is covered by ISO 11363 2.

ZWS ISO 11363: Part 2:2017
Gas cylinders - 17E and 25E taper threads for connection of valves to gas cylinders
Part 2: Inspection gauges
Price Code: Gr.5
24 pages
Identical to ISO 11363-2:2018

This document specifies types, dimensions and principles of use of gauges, to be used in conjunction with the taper threads specified in ISO 11363-1 (i.e. 17E and 25E threads).
It provides examples of calculations for thread gauge dimensions on the large end diameter (Annex A) and draws attention to the limitations of the gauging system specified (Annex B).

ZWS ISO 11372:2011
Gas cylinders - Acetylene cylinders -Filling conditions and filling inspection
Price Code: Gr 6
13 pages
Identical to ISO 11372:2011

This International Standard specifies minimum requirements for the filling conditions and filling inspection of acetylene cylinders.
This International Standard is not applicable to an assembly of cylinders connected by a manifold, e.g. bundles (see ISO 13088).

ZWS ISO 11426:2021
Jewellery and precious metals - Determination of gold -Cupellation method (fire assay)
Price Code: Gr 7
8 pages
Identical to ISO 11426:2021

This document specifies a cupellation method (fire assay) for the determination of gold on a material considered homogeneous. The gold content of the sample lies preferably between 100 and 999,5 parts per thousand (‰) by weight. Fineness above 999,5 ‰ can be determined using a spectroscopy method by difference (e.g. ISO 15093). The procedure is applicable to most types of gold samples. Some modifications are indicated for specific cases (presence of large amount of base metals, platinum or palladium, silver). It is not compatible with the presence above trace levels of iridium, rhodium and ruthenium (more than 0,25 ‰ for the sum of all three elements). This method is also intended to be used as the recommended method for the determination of fineness in jewellery alloys covered by ISO 9202.

ZWS ISO 11513:2019
Gas cylinders - Refillable welded steel cylinders containing materials for sub-atmospheric gas packaging (excluding acetylene) - Design, construction, testing, use and periodic inspection
Price Code: Gr 5
25 pages
Identical to ISO 11513:2019

This document specifies minimum requirements for the material, design, construction, workmanship, examination and testing at manufacture of refillable welded steel cylinders for the sub-atmospheric pressure storage of liquefied and compressed gases. It only applies to the cylinders themselves, irrespective of the materials contained therein (e.g. adsorbents, media, materials and/or gases) and other related applications. The cylinders have a test pressure not greater than 42 bar and a water capacity from 0,5 l up to and including 12 l exposed to ambient temperatures for the purpose of facilitating the sub atmospheric pressure storage of liquefied and compressed gases as adsorbed gases.
Minimum requirements for inspection at the time of fill and periodic inspection and testing are also specified.

ZWS ISO 11515:2022
Gas cylinders - Refillable composite reinforced tubes of water capacity between 450 l and 3000 l - Design, construction and testing
Price Code: Gr 8
53 pages
Identical to ISO 11515:2022

This document specifies the minimum requirements for the materials, design, construction and performance testing of
—Type 2 hoop-wrapped composite tubes,
—Type 3 fully-wrapped composite tubes, and
—Type 4 fully-wrapped composite tubes
with water capacities between 450 l and 3 000 l for storage and conveyance of compressed or liquefied gases with test pressures up to and including 1 600 bar and a design life of at least 15 years.
This document is applicable to expected service temperatures between −40 °C and +65 °C.
NOTE: Type 4 tubes manufactured and tested to this document are not intended to contain toxic, oxidizing or corrosive gases.
This document is applicable to tubes with composite reinforcement of carbon fibre or aramid fibre or glass fibre (or a mixture thereof) in a matrix.

ZWS ISO 11568:2023
Financial services — Key management (retail)
Price Code: Gr 9
116 pages
Identical to ISO 11568:2023

This document describes the management of symmetric and asymmetric cryptographic keys that can be used to protect sensitive information in financial services related to retail payments. The document covers all aspects of retail financial services, including connections between a card-accepting device and an Acquirer, between an Acquirer and a card Issuer, and between an ICC and a card-accepting device. It covers all phases of the key life cycle, including the generation, distribution, utilization, archiving, replacement and destruction of the keying material. This document covers manual and automated management of keying material, and any combination thereof, used for retail financial services. It includes guidance and requirements related to key separation, substitution prevention, identification, synchronization, integrity, confidentiality and compromise, as well as logging and auditing of key management events.
Requirements associated with hardware used to manage keys have also been included in this document.

ZWS ISO 11596:2021
Jewellery and precious metals — Sampling of precious metals and precious metal alloys
Price Code: Gr 7
11 pages
Identical to ISO 11596:2021

This document specifies a method of sampling precious metals and precious metal alloys for the determination of their precious metal content and for the assessment of their homogeneity. The document is applicable to raw materials, semi-finished products and finished products and is intended to be used only for the sampling of entirely metallic materials.
NOTE 1: Standards for determination of precious metals contents for different metals are listed in the Bibliography.
NOTE 2: For assaying techniques different from the listed ones other sampling procedures can be required.
NOTE 3: For the purpose of production control or lot inspections the International Standards for the sampling indicated in the Bibliography or corresponding guidelines can be applied in addition.

ZWS ISO 11608:2014
Needle based injection systems for medical use – Requirements and test methods
Part 1: Needle based injection system
Price Code: Gr 7
40 pages
Identical to ISO 11608.1:2014

Specifies requirements and test methods for needle based injection systems (NISs) intended to be used with needles and with replaceable or non-replaceable containers.Containers covered in this part of ISO 11608 include single and multi-dose syringe-based and cartridge-based systems filled either by the manufacturer or by the end user.

Part 2: Needles – requirements and test methods.
Price Code: Gr 4
10 pages
Identical to ISO 11608-2:2000

Specifies requirements and test methods for single-use, double ended, sterile needles for pen-injectors which fulfil the specification of ISO 11608-1.

Part 3:2012 Finished containers
Price Code: Gr 4
10 pages
Identical to ISO 11608.3:2012

Specifies the functional and design considerations for containers to be used with neddle-based injection systems (NIS) that fulfill the specifications of ISO 11608.1.Ii is applicable to single and multi-dose containers (either filled by the manufacturer or by the end-user) which can be provided to the end-user intergrated in the NIS or assembled with the NIS at the time of use.

Part 5:2012 Automated functions
Price Code: Gr. 5
15 pages
Identical to ISO 11608.5:2012

Specifies requirements and test methods for the automated functions of needle-based injection systems with automated functions (NIS-AUTO) for the administration of medicinal products in humans.

Part 7:2016 Accessibility for persons with visual impairment
Price Code:Gr.6
20 pages
Identical to ISO 11608.7:2016

Specifies particular requirements to make needle based drug delivery systems or NIS (needle based injection systems) accessible for persons with visual impairments.It applies to devices intended for patient or caregiver administration of medicinal products to humans.

ZWS ISO 11615:2017/Amd.1:2022
Health informatics — Identification of medicinal products — Data elements and structures for the unique identification and exchange of regulated medicinal product information
Price Code: Gr 6
78 pages
Identical to ISO 11615:2017

This document establishes definitions and concepts and describes data elements and their structural relationships, which are required for the unique identification and the detailed description of Medicinal Products. Taken together, the standards listed in the Introduction define, characterise and uniquely identify regulated Medicinal Products for human use during their entire life cycle, i.e. from development to authorisation, post-marketing and renewal or withdrawal from the market, where applicable. Furthermore, to support successful information exchange in relation to the unique identification and characterisation of Medicinal Products, the use of other normative IDMP messaging standards is included, which are to be applied in the context of this document.

ZWS ISO 11616:2017
Health informatics - Identification of medicinal products- Data elements and structures for unique identification and exchange of regulated pharmaceutical product information
Price Code: Gr 7
34 pages
Identical to ISO 11616:2017

This document is intended to provide specific levels of information relevant to the identification of a Medicinal Product or group of Medicinal Products. It defines the data elements, structures and relationships between data elements that are required for the exchange of regulated information, in order to uniquely identify pharmaceutical products. This identification is to be applied throughout the product lifecycle to support pharmacovigilance, regulatory and other activities worldwide. In addition, this document is essential to ensure that pharmaceutical product information is assembled in a structured format with transmission between a diverse set of stakeholders for both regulatory and clinical (e.g. e-prescribing, clinical decision support) purposes. This ensures interoperability and compatibility for both the sender and the recipient. This document is not intended to be a scientific classification for pharmaceutical products. Rather, it is a formal association of particular data elements categorised in prescribed combinations and uniquely identified when levelling degrees of information are incomplete. This allows for Medicinal Products to be unequivocally identified on a global level. References to other normative IDMP and messaging standards for pharmaceutical product information are included in Clause 2, to be applied in the context of this document. Medicinal products for veterinary use are out of scope of this document.

ZWS ISO 11620:2023
Information and documentation – Library performance indicators
Price Code: Gr 7
138 pages
Identical to ISO 11620:2023

This document specifies the requirements of a performance indicator for libraries and establishes a set of indicators to be used by libraries of all types. It also provides guidance on how to implement performance indicators in libraries where such indicators are not already in use. This document is applicable to all types of libraries in all countries. However, not all performance indicators apply to all libraries. Limitations on the applicability of individual performance indicators are listed in the scope clause of the description of each indicator (see Annex A). This document provides a standardized terminology and concise definitions of the performance indicators. Furthermore, it contains detailed descriptions of the indicators and of the collection and the analysis of data needed. This document is not intended to exclude the use of performance indicators not specified in it.

ZWS ISO 11625:2007
Gas cylinders - Safe handling
Price Code: Gr 6
13 pages
Identical to ISO 11625:2007

This International Standard specifies requirements for safe handling, use and storage of gas cylinders for compressed, liquefied or dissolved gases. This International Standard applies only to single gas cylinders of sizes from 0,5 I to 150 I water capacity. For specific gas applications such as welding, diving, inerting, etc., additional requirements apply which are not covered in this International Standard. Maintenance, repair, marking, labelling, inspection and retesting of gas cylinders, which are normally under the responsibility of the gas cylinder owner, are also not included in this International Standard.

ZWS ISO 11697:1995
Bases for design of structures – Loads due to bulk materials
Price Code: Gr 10
20 pages
Identical to ISO 11697:1995

This International Standard deals with pressure conditions in hoppers, bunkers, bins and Silos constructed using normal structural engineering materials. For the purposes of definition, the term Silo is used throughout this International Standard to represent all forms of storage. The methods given in clause 3 for the determination of loads are intended for use with the practical range of containment structures subject to the following limitations:
filling is a continuous process involving small inertia effects and inconsequential impact loads;
b) the maximum particle size of the ensiled bulk material is not greater than 0,lR (R = hydraulic radius);
c) where discharge devices are used (e.g. feeders, internal flow tubes, etc.), material flow is effectively continuous and centric within the eccentricity limitation given in e):
d) in bottom-discharging Silos, the bulk material is free-flowing and has a low cohesion [i.e. $d_a \leq 1{,}0R$ (see annex A)];
e) the eccentricity e of the filling or discharge process, relative to the Silo centreline, is less than 0,25d for cylindrical Silos, and less than 0,25α in the case of rectangular Silos;
f) the ratio of height to diameter is not greater than 10; the height is not greater than 100 m and the diameter is not greater than 50 m.
Loads determined using this International Standard Consider
- a defined range of bulk material properties;
- variations in the surface friction conditions;
- the geometry of the structure;
- attachment to or loading by other structures and/or equipment;
- the methods of filling, storage and discharge.
All the above Parameters shall be agreed with the client and written into all contract documents. Design of the Silo shall be checked if any of the above criteria are changed.

ZWS ISO 11699:2008
Non-Destructive testing – Industrial radiographic film
Part 1: Classification of film systems for industrial radiography
Price Code: Gr 5
9 pages
Identical to ISO 11699.1:2008

Ther purpose of the standard is to establish the performance of film systems. It is applicable for the classification of film systems in combination with specified lead screens for industrial radiography.

Part 2: Control of film processing by means of reference values
Price Code: Gr 5
9 pages
Identical to ISO 11699.2:1998

Describes a procedure for the control of film processing systems.

ZWS ISO 11815:2007
Milk – Determination of total milk – clothing activity of Bovine rennets.
Price Code: Gr 6
11 pages
Identical to ISO 11815:2007

Describes a method for the determination of the total milk clotting activity of bovine rennet containing only chymosin and bovine pepsin as the active coagulating enzymes on a standard milk substrate at pH 6,5.

ZWS ISO 11816:2013
Milk and milk products – Determination of alkaline phosphatase activity.
Part 1: Fluorimetric method for milk and milk based drinks.
Price Code: Gr 4
11 pages
Identical to ISO 11816.1:2013

Specifies a fluoremetric method for the determination of alkaline. Phosphatase activity in pasteurized whole milk, semi-skimmed milk and flavoured milks. The method is applicable for milk from cows, sheep and goats and milk based drinks.

Part 2:2016 Fluorimetric method for cheese.
Price Code: Gr 4
15 pages
Identical to ISO 11816.2:2016

Specifies a fluoremetric method for the determination of alkaline phosphatase activity in cheese. The method is applicable to soft cheeses, semi-hard and hard cheeses provided that the mould is only on the surface of the cheese and not also the inner part.

ZWS ISO 11866:2006
Milk and milk products – Enumeration of presumptive Escherichia coli.
Part 1: Most probable number technique using 4-methylumbelliferyl – B –D – glucoronide (MUG).
Price Code: Gr 4
11 pages
Identical to ISO 11866-1:2005

Specifies a combined method for the enumeration of presumptive Escherichia coli and of presumptive coliforms by means of a culture technique involving a liquid medium with MUG and calculation of the number of presumptive Escheria coli and or coliforms per gram pr per milli litre by the most probable number (MPN) technique after incubation at 30^0C.

Part 2: Colony – Count technique at 44^0C using membranes.
Price Code: Gr 5
9 pages
Identical to ISO 11866-2:2005

Specifies a method for the enumeration of presumptive Escherichia coli by means of a colony-count technique at 44^0C.

ZWS ISO/TS 11869:2012
Fermented milks – Determination of titratable acidity – Potentiometric method
Price Code: Gr. 6

Specifies a potentiometric method for the determination of the titratable acidity of natural yoghurt, flavoured yoghurt, fruit yoghurt, drinking yoghurt, fresh cheese with or without fruit, buttermilk with or without fruit and other fermented milk products.

ZWS ISO 11929:2010
Determination of the Characteristic Limits (decision Threshold, Detection Limit, and Limits of The Confidence Interval) For Measurements Of Ionising Radiation – Fundermentals And Application
Price Code: Gr. 8
58 pages
Identical to ISO 11929:2010

Specifies a procedure in the field of ionizing metrology for the calculation of the decision threshold ,the detection limit and the limits of the limits of the confidence interval for a non negative ionizing

radiation measuremerand ,when counting measurements with preselection of time or counts are carried out,and the measurand results from a gross count rate and a background count rate as well as from further quantities on the basis of a model of the evaluation.

ZWS ISO 12209:2013
Gas cylinders - Outlet connections for gas cylinder valves for compressed breathable air
Price Code: Gr 5
14 pages
Identical to ISO 12209:2013

This International Standard specifies the characteristics of outlet connections for gas cylinder valves for compressed breathable air gas cylinders. It states the fundamental requirements for both; the connection and its components and includes basic dimensions. Included in this International Standard are the following connections:
—yoke type outlet connection for SCUBA use up to a maxi-mum cylinder working pressure of 232 bar;
—threaded type outlet connections up to a maximum cylinder working pressure of 232 bar and 300 bar; and
—threaded type outlet connection for SCUBA use up to a max-imum cylinder working pressure of 232 bar including adaptor for users to convert into a yoke type outlet.
Annex A gives the outlet connection type test procedures.
Requirements for cylinder valves (see ISO 10297) are not cov-ered by this International Standard.
Requirements for material specifications and gas/material com-patibility (see ISO 11114 1 and ISO 11114 2) are not covered by this International Standard.

ZWS ISO 12209:2013/Amd.1:2016
Gas cylinders - Outlet connections for gas cylinder valves for compressed breathable air
Price Code: Gr 5
14 pages
Identical to ISO 12209:2013/Amd.1:2016

This International Standard specifies the characteristics of outlet connections for gas cylinder valves for compressed breathable air gas cylinders. It states the fundamental requirements for both; the connection and its components and includes basic dimensions. Included in this International Standard are the following connections:
—yoke type outlet connection for SCUBA use up to a maximum cylinder working pressure of 232 bar;
—threaded type outlet connections up to a maximum cylinder working pressure of 232 bar and 300 bar; and
—threaded type outlet connection for SCUBA use up to a maximum cylinder working pressure of 232 bar including adaptor for users to convert into a yoke type outlet.
Annex A gives the outlet connection type test procedures.
Requirements for cylinder valves (see ISO 10297) are not covered by this International Standard.
Requirements for material specifications and gas/material compatibility (see ISO 11114 1 and ISO 11114 2) are not covered by this International Standard.

ZWS ISO 12078:2007
Anhydrous milk fat – Determination of sterol composition by gas liquid chromatography (reference method)
Price Code: Gr 5
16 pages
Identical to ISO 12078:2006

Specifies a gas liquid chromatographic reference method for the determination of the sterol composition of anhydrous milk fat extracted from dairy products.

ZWS ISO 12122: Part 4:2017
Timber structures - Determination of characteristic values
Part 4: Engineered Wood Products
Price Code: Gr 5
11 pages
Identical to ISO 12122-4:2017

This document gives methods of determination of characteristic values for a defined population of engineered wood products calculated from test values. This document presents methods for the determination of:
a) characteristic value of material properties, where the determined property is multiplied by a geometric parameter to give a component capacity or component stiffness, or
b) characteristic value of component properties directly, where the determined property is a component capacity or component stiffness.
This document presents methods for determination of
a) characteristic value of mean-based properties, and
b) characteristic value of 5th percentile-based properties.

ZWS ISO 12122: Part 5:2018
Timber structures - Determination of characteristic values
Part 5: Mechanical connections
Price Code: Gr 5
12 pages
Identical to ISO 12122-5:2018

This document gives methods of determination of characteristic values for a defined population of mechanical connections between timber components, calculated from full scale test values.
It presents methods for the determination of:
a) slip modulus of mechanical connections;
b) characteristic strength of connections subjected to either monotonic or cyclic loads.
Glued connections are excluded from the scope of this document.
NOTE 1: It is assumed that the failure mode is the same for all specimens in the sample.
NOTE 2: When a small number of test results is available, ISO 12122 6 is used for the determination of the mean and the 5th percentile values.
NOTE 3: Informative commentary to the clauses of this document can be found in Annex A.

ZWS ISO 12122: Part 6:2017
Timber structures - Determination of characteristic values
Part 6: 2017: Large components and assemblies
Price Code: Gr 5
28 pages
Identical to ISO 12122-6:2017

This document specifies methods of determination of characteristic values for a defined population of large components and assemblies, calculated from test values.
It establishes two methods for the determination of characteristic values:
a) direct calculation from test values;
b) calculation from a resistance model, which is firstly calibrated from test results, including calculation of error terms.

ZWS ISO 12625:2009
Tissue paper and tissue products
Part 1: General guidance on terms
Price Code: Gr 7
23 pages
Identical to ISO 12625.1:2005

Establishes general principles for the use of terms in the entire working field of tissue paper and tissue products.

Part 3: Determination of thickness, bulking thickness and apparent bulk density
Price Code: Gr 5
10 pages
Identical to ISO 12625.32005

Specifies a test method for the determination of thickness and bulking thickness and the calculation of apparent bulk density of tissue paper and tissue products under a pressure of 2,0 kPa

ZWS ISO 12706:2009
Non destructive testing – penetrant testing - Vocabulary
Price Code: Gr. 4
5 pages
Identical to ISO 12706:2009

It defines technical terms relating to penetrant testing

ZWS ISO 12721:2000
Non-Destructive testing-Thermal neutron radiographic testing-Determination of beam L/D ratio
Price Code: Gr. 4
10 pages
Identical to ISO 12721:2000

Defines an empirical technique for the measurement of the effective collimation ratio and effective L/D of thermal neutron radiography beams for values between 20 and 1 000.The technique is based upon analysis of a neutron radiographic image and is independent of measurements and calculations based on physical dimensions of the collimator system.

ZWS ISO 12779:2011
Lactose – Determination of water content – Karl Fischer Method
Price Code: Gr. 4
9 pages
Identical to ISO 12779:2011

Specifies a method for the determination of the water content of lactose by Karl Fischer (KF) titration.

ZWS ISO/IEC 12785: Part 1:2009/Cor 1:2013
Information technology - Learning, education, and training - Content packaging
Part 1: Information model
Price Code: Gr. 8
58 pages
Identical to ISO/IEC 12785- 1:2009

This part of ISO/IEC 12785 defines the data structures that can be used to exchange language, education and training (LET) content among systems that wish to import, export, aggregate, and disaggregate packages of LET content. It illustrates the conceptual structure of the Content Packaging Information Model and defines the structural relationships, data-type, value-space, and number of occurrences permitted for each kind of information object.

ZWS ISO/IEC TS 12791:2024
Information technology — Artificial intelligence — Treatment of unwanted bias in classification and regression machine learning tasks
Price Code: Gr. 7
25 pages
Identical to ISO/IEC TS 12791:2024

This document describes how to address unwanted bias in AI systems that use machine learning to conduct classification and regression tasks. This document provides mitigation techniques that can be applied throughout the AI system life cycle in order to treat unwanted bias. This document is applicable to all types and sizes of organization.

ZWS ISO/IEC 12792:2025
Information technology - Artificial intelligence (AI) - Transparency taxonomy of AI systems
Price Code: Gr. 7
50 pages
Identical to ISO/IEC TS 12792:2025

This document specifies a taxonomy of information elements to assist AI stakeholders with identifying and addressing the needs for transparency of AI systems. The document describes the semantics of the information elements and their relevance to the various objectives of different stakeholders. This document is applicable to any kind of organization and application involving an AI system.

ZWS ISO 12846:2012
Water quality — Determination of mercury — Method using atomic absorption spectrometry (AAS) with and without enrichment
Price Code: Gr. 10
15 pages
Identical to ISO 12846:2012
Supersedes ZWS 497:1997

This International Standard specifies two methods for the determination of mercury in drinking, surface, ground, rain and waste water after appropriate pre-digestion. For the first method (described in Clause 6), an enrichment step by amalgamation of the Hg on, for example, a gold/platinum adsorber is used. For the method given in Clause 7, the enrichment step is omitted. The choice of method depends on the equipment available, the matrix and the concentration range of interest. Both methods are suitable for the determination of mercury in water. The method with enrichment (see Clause 6) commonly has a practical working range from 0,01 µg/l to 1 µg/l. The mean limit of quantification (LOQ) reported by the participants of the validation trial (see Annex A) was 0,008 µg/l. This information on the LOQ gives the user of this International Standard an orientation and does not replace the estimation of performance data based on laboratory-specific data. It has to be considered that it is possible to achieve lower LOQs with specific instrumentation (e.g. single mercury analysers). The method without enrichment (in Clause 7) commonly has a practical working range starting at 0,05 µg/l. The LOQ reported by the participants of the validation trial (see Annex A) was 0,024 µg/l. It is up to the user, based on the specific application, to decide whether higher concentrations are determined by omitting the enrichment step and/or by diluting the sample(s). The sensitivity of both methods is dependent on the selected operating conditions. Another possibility for the determination of extremely low Hg concentrations down to 0,002 µg/l without pre-concentration is the application of atomic fluorescence spectrometry (see ISO 17852). Specific atomic- absorption mercury analysers allow determinations down to 0,010 µg/l without pre-concentration. In general, the determination of trace concentrations of Hg by AAS (or AFS) is dependent on clean operating conditions in the laboratory and on the use of high-purity chemicals with negligible low-Hg blanks.
NOTE This International Standard may be applied to industrial and municipal waste water after an additional digestion step performed under appropriate conditions and after suitable method validation (see 7.4). A potential sample stability issue (mercury loss) for anaerobic reducing industrial effluents has to be considered thoroughly.

ZWS ISO 13061: Part 4:2014
Physical and mechanical properties of wood – test methods for small clear specimens
Part 4: Determination of modulus of elasticity in static bending
Price Code: Gr. 5
5 pages
Identical to ISO 13061-4:2014

This part of ISO 13061 specifies a method for determining the modulus of elasticity of wood in static bending by measuring the deflection in the mid-span of a simply supported beam.

ZWS ISO 13061: Part 5:2020
Physical and mechanical properties of wood — Test methods for small clear wood specimens
Part 5: Determination of strength in compression perpendicular to grain
Price Code: Gr. 4
5 pages
Identical to ISO 13061-5:2020

This document specifies a method for determining the strength in compression perpendicular to grain of wood.

ZWS ISO 13061: Part 6:2014
Physical and mechanical properties of wood – test methods for small clear specimens
Part 6: Determination of ultimate tensile stress parallel to grain
Price Code: Gr. 5
4 pages
Identical to ISO 13061-6:2014

This part of ISO 13061 specifies a method for determining the ultimate tensile stress of wood parallel to grain on small clear specimens by measuring the breaking load applied statically along the longitudinal axis of a test piece.

ZWS ISO 13061: Part 7:2014
Physical and mechanical properties of wood – test methods for small clear specimens
Part 7: Determination of ultimate tensile stress perpendicular to grain
Price Code: Gr. 5
5 pages
Identical to ISO 13061-7:2014

This part of ISO 13061 specifies a method for the determination of ultimate tensile stress of wood perpendicular to grain of small clear specimens in the radial and tangential directions by measuring the breaking load applied statically perpendicular to the longitudinal axis of a test piece.

ZWS ISO 13061: Part 8:2022
Physical and mechanical properties of wood — Test methods for small clear wood specimens
Part 8: Determination of ultimate strength in shearing parallel to grain
Price Code: Gr. 5
5 pages
Identical to ISO 13061-8:2022

This document specifies a method for determining the ultimate strength in shearing parallel to grain of small clear wood specimens by measuring the breaking load applied statically along the radial or the tangential plane of a test piece.

ZWS ISO 13061: Part 10:2017
Physical and mechanical properties of wood — Test methods for small clear specimens
Part 10: Determination of impact bending strength
Price Code: Gr. 4
5 pages
Identical to ISO 13061-10:2017

This document specifies a method for determining the impact bending strength of wood.

ZWS ISO 13061: Part 11:2017
Physical and mechanical properties of wood — Test methods for small clear specimens
Part 11: Determination of resistance to impact Indentation
Price Code: Gr. 5
4 pages
Identical to ISO 13061-11:2017

This document specifies a method for the determination of the resistance of wood to impact indentation by a steel ball.

ZWS ISO 13061: Part 12:2017
Physical and mechanical properties of wood — Test methods for small clear specimens
Part 12: Determination of static hardness
Price Code: Gr. 5
3 pages
Identical to ISO 13061-12:2017

This document specifies a method for determining of the static hardness of wood by measuring resistance of a test piece to the penetration of a plunger under gradually increasing load.

ZWS ISO 13061: Part 13:2024
Physical and mechanical properties of wood -Test methods for small clear wood specimens
Part 13: Determination of radial and tangential shrinkage
Price Code: Gr. 5
3 pages
Identical to ISO 13061-13:2024

This document specifies a method for the determination of linear shrinkage in the radial and tangential directions of wood.

ZWS ISO 13061: Part 14:2024
Physical and mechanical properties of wood - Test methods for small clear wood specimens
Part 14: Determination of volumetric shrinkage
Price Code: Gr. 5
4 pages
Identical to ISO 13061-14:2024

This document specifies methods for the determination of volumetric shrinkage of wood.

ZWS ISO 13061: Part 15:2025
Physical and mechanical properties of wood — Test methods for small clear wood specimens
Part 15: Determination of radial and tangential swelling
Price Code: Gr. 4
3 pages
Identical to ISO 13061-15:2025

This document specifies a method for the determination of linear swelling in the radial and tangential directions of wood.

ZWS ISO 13061: Part 16:2025
Physical and mechanical properties of wood - Test methods for small clear wood specimens
Part 16: Determination of volumetric swelling
Price Code: Gr. 4
5 pages
Identical to ISO 13061-16:2025

This document specifies methods for the determination of volumetric swelling of wood.

ZWS ISO 13061: Part 17:2017
Physical and mechanical properties of wood - Test methods for small clear specimens
Part 17: Determination of ultimate stress in compression parallel to grain
Price Code: Gr. 3
3 pages
Identical to ISO 13061-17:2017

This document specifies a method for determining the ultimate stress in compression parallel to grain of wood.

ZWS ISO 13061: Part 18:2022
Physical and mechanical properties of wood - Test methods for small clear wood specimens
Part 18: Vocabulary
Price Code: Gr. 5
11 pages
Identical to ISO 13061-18:2022

This document lists the terms and definitions relating to general concepts, macrostructure, sampling, and methods of physical and mechanical testing of wood. Other terminologies that are not mentioned in this standard are defined in ISO 24294.

ZWS ISO 13082:2011
Milk and milk products – Determination of the lipase activity of pregastric lipase preparation
Price Code: Gr. 4
9 pages
Identical to ISO 13082:2011

Specifies a method for the determination of the lipase activity.It is intended for the preparation of pregastric lipase and rennet paste, both of animal origin.

ZWS ISO/TR 13086: Part 1:2011
Gas cylinders - Guidance for design of composite cylinders
Part 1: Stress rupture of fibres and burst ratios related to test pressure
Price Code: Gr. 6
22 pages
Identical to ISO/TR 13086-1:2011

This part of ISO/TR 13086 gives guidance for the design of composite cylinders, relating to stress rupture reliability and burst ratio as a function of test pressure. Related issues, such as cyclic fatigue of the liner and composite, damage tolerance, environmental exposure, and life extension will be addressed in subsequent parts.
The topics covered by this part of ISO/TR 13086 are to support the development and revision of standards for fibre composite reinforced pressurized cylinders.

ZWS ISO/TR 13086: Part 2:2017
Gas cylinders - Guidance for design of composite cylinders
Part 2: Bonfire test issues
Price Code: Gr. 7
39 pages
Identical to ISO/TR 13086-2:2017

This document addresses the topic of safety and performance of composite cylinders in a fire situation. A statement of safety addresses the topics which should be understood in order to operate cylinders safely in service. The remainder of this document provides a basic level of understanding of these topics.

ZWS ISO/TR 13086: Part 3:2018
Gas cylinders- Guidance for design of composite cylinders
Part 3: Calculation of stress ratios
Price Code: Gr. 7
27 pages
Identical to ISO/TR 13086-3:2018

This document addresses the topic of calculation of stress ratios when analyzing filament wound composite cylinders. This document is applicable to cylinders of Types 2, 3, and 4. The calculation of stress ratios supports the development and revision of standards for fibre reinforced composite pressurized cylinders.

ZWS ISO/TR 13086: Part 4:2024
Gas cylinders - Guidance for design of composite cylinders
Part 4: Cyclic fatigue of fibres and liners
Price Code: Gr. 7
27 pages
Identical to ISO/TR 13086-4:2024

This document addresses the topic of cyclic fatigue of structural reinforcing fibres as used in composite cylinders, and cyclic fatigue of structural and non-structural liners in these cylinders. This document provides a basic level of understanding of these topics.

ZWS ISO/TR 13086: Part 5: 2022
Gas cylinders - Information for design of composite cylinders
Part 5: Impact testing of composite cylinders
Price Code: Gr. 7
31 pages
Identical to ISO/TR 13086-5:2025

This document provides information for the design of composite cylinders related to impact testing and service experience with impact, including:
—low energy impact, which can result from events that can occur during handling or working around cylinders;
—high energy impact, which can result from accidents during transportation, or impact by large objects with velocity;
—drop impact, which can result from handling, where cylinders are dropped or tipped over; and
—high velocity impact, which can result from high energy impact by a small object, such as gunfire, and demonstrates non-shatterability of the cylinder or tube.
Where appropriate, field experience relevant to testing requirements is provided.
NOTE: Unless otherwise stated, the word “cylinder” refers to both cylinders and tubes.

ZWS ISO 13106:2014
Plastic – blow-moulded polypropylene containers for packaging of liquid foodstuffs
Price Code: Gr. 6
18 pages
Identical to ISO 13106:2014

This International Standard provides the requirements of polypropylene resins intended for use in blow-moulded, round containers with capacities up to, and including two litres intended for the packaging of liquids for human consumption. This International Standard also provides tolerances on mass, dimensions, methods of sampling, testing, and performance requirements. It is not to be implied that polypropylene resins are the only polymers suitable

for these applications, as many other polymers, including PE-HD, PET, etc. are also suitable.

ZWS ISO 13131:2021
Health informatics - Telehealth services - Quality planning guidelines
Price Code: Gr. 7
50 pages
Identical to ISO 13131:2021

This document provides processes that can be used to analyze the risks to the quality and safety of healthcare and continuity of care when telehealth services are used to support healthcare activities. Using risk management processes, quality objectives and procedures are derived which provide guidelines for the operations of telehealth services. These include but are not limited to the following domains:
—management of telehealth quality processes by the healthcare organization;
—strategic and operational process management relating to regulations, knowledge management (best practice) and guidelines;
—healthcare processes relating to people such as healthcare activities, planning, and responsibilities;
—management of financial resources to support telehealth services;
—management of information management and security used in telehealth services;
—processes related to the planning and provision of human resources, infrastructure, facilities and technology resources for use by telehealth services. This document provides a set of example guidelines containing quality objectives and procedures for each domain. Organizations can apply the quality and risk management processes described in Clauses 5 and 6 to develop quality objectives and procedures appropriate to the telehealth services they provide. This document does not provide guidance for the manufacture, assembly, configuration, interoperability or management of devices, products or technical systems.
Annex A provides procedures for the implementation of telehealth services by a large organization. Annex B provides use cases for the application of quality planning guidelines in different types of real-world telehealth services.

ZWS ISO 13338:2022
Gas cylinders — Gases and gas mixtures — Determination of corrosiveness for the selection of cylinder valve outlet
Price Code: Gr. 5
15 pages
Identical to ISO 13338:2022

This document specifies the following, in order to determine the corrosiveness of gases and gas mixtures so that a suitable outlet connection can be assigned to each of them:
—for pure gases and some liquids, a complete list indicating their corrosiveness;
—for gas mixtures, a calculation method, in the absence of experimental data, relating to the corrosiveness of each of their components.

ZWS ISO 13366:2009
Milk – Enumeration of somatic cells
Part 1: Microscopic method (Reference method)
Price Code: Gr 5
17 pages
Identical to ISO 13366:2009

Specifies a microscopic method (reference method) for the counting of somatic cells in both raw and chemically preserved milk

ZWS ISO 13373: Part 1:2002Condition monitoring and diagnostics of Machines- Vibration condition monitoring
Part 1: General procedures
Price Code: Gr. 8
51 pages
Identical to ISO 13373-1:2002

This part of ISO 13373 provides general guidelines for the measurement and data collection functions of machinery vibration for condition monitoring. It is intended to promote consistency of measurement procedures and practices, which usually concentrate on rotating machines. Because of the diversity of approaches to condition monitoring, recommendations specific to a particular kind of monitoring programme will be addressed in additional parts of ISO 13373. This part of ISO 13373 is a basic document which presents recommendations of a general nature, encompassing
- measurement methods,
- measurement parameters,
- transducer selection,
- transducer location,
- transducer attachment,
- data collection,
- machine operating conditions,
- vibration monitoring systems,
- signal conditioning systems,
- interfaces with data-processing systems,
- continuous monitoring, and
- periodic monitoring.

The vibratory conditions of a machine can be monitored by vibration measurements on the bearing or housing structure and/or by vibration measurements of the rotating elements of the machine. In addition, measurements can be continuous or non-continuous. This part of ISO 13373 provides guidance on the types of measurements recommended in both the continuous and the non-continuous modes. It is emphasized that this part of ISO 13373 addresses only the procedures for vibration condition monitoring of machines. In many cases, the complete condition monitoring and diagnostics of a machine can also include other parameters, such as thermography, oil analysis, ferrography, process variations, temperatures and pressures. These non-vibratory parameters will be included in other International Standards.
This part of ISO 13373 covers rotating machines. However, many of the procedures included can be applied to other types of machines, for example reciprocating machines.

ZWS ISO 13373: Part 2:2016
Condition monitoring and diagnostics of machines — Vibration condition monitoring
Part 2: Processing, analysis and presentation of vibration data
Price Code: Gr. 7
35 pages
Identical to ISO 13373-2:2016

This part of ISO 13373 recommends procedures for processing and presenting vibration data and analyzing vibration signatures for the purpose of monitoring the vibration condition of rotating machinery, and performing diagnostics as appropriate. Different techniques are described for different applications. Signal enhancement techniques and analysis methods used for the investigation of particular machine dynamic phenomena are included. Many of these techniques can be applied to other machine types, including reciprocating machines. Example formats for the parameters that are commonly plotted for evaluation and diagnostic purposes are also given. This part of ISO 13373 is divided essentially into two basic approaches when analysing vibration signals: the time domain and the frequency domain. Some approaches to the refinement of diagnostic results, by changing the operational conditions, are also covered. This part of ISO 13373 includes only the most commonly used techniques for the vibration condition monitoring,

analysis and diagnostics of machines. There are many other techniques used to determine the behaviour of machines that apply to more in depth vibration analysis and diagnostic investigations beyond the normal follow on to machinery condition monitoring. A detailed description of these techniques is beyond the scope of this part of ISO 13373, but some of these more advanced special purpose techniques are listed in Clause 5 for additional information.
For specific machine types and sizes, the ISO 7919 and ISO 10816 series provide guidance for the application of broadband vibration magnitudes for condition monitoring, and other documents such as VDI 3839 provide additional information about machinery specific problems that can be detected when conducting vibration diagnostics.

ZWS ISO 13485:2004
Medical devices – Quality management systems-Requirements for regulatory purposes
Price Code: Gr 8
15 pages
Identical to ISO 13485:2004

Specifies requirements for a quality management system where an organization needs to demonstrate its ability to provide medical devices and related services that consistently meet customer requirements and regulatory requirement applicable to medical devices and related services.

ZWS ISO 13492:2007
Financial services – Key management related data element – Application and Usage of ISO 8583 data elements 53 and 96
Price Code: Gr 6
10 pages
Identical to ISO 13492:2007

Describes key management related data element that can be transmitted either in transaction messages to convey information about cryptographic keys used to secure the current transaction or I cryptographic service messages to convey information about cryptographic keys to be used to secure future transactions.

ZWS ISO 13528:2022
Statistical methods for use in proficiency testing by interlaboratory comparison
Price Code: Gr 9
96 pages
Identical to ISO 13528:2022

This document provides detailed descriptions of statistical methods for proficiency testing providers to use to design proficiency testing schemes and to analyse the data obtained from those schemes. This document provides recommendations on the interpretation of proficiency testing data by participants in such proficiency testing schemes and by accreditation bodies. The procedures in this document can be applied to demonstrate that the measurement results obtained by laboratories, inspection bodies, and individuals meet specified criteria for acceptable performance. This document is applicable to proficiency testing where the results reported are either quantitative measurements or qualitative observations on test items.
NOTE: The procedures in this document can also be applied for the assessment of expert opinion where the opinions or judgments are reported in a form which can be compared objectively with an independent reference value or a consensus statistic. For example, when classifying proficiency test items into known categories by inspection - or in determining by inspection whether proficiency test items arise, or do not arise, from the same original source - and the classification results are compared objectively, the provisions of this document that relate to nominal (qualitative) properties can be applied.

ZWS ISO/TR 13570: Part 2:2014
Wheelchairs
Part 2: Typical values and recommended limits for dimensions, mass and maneuvering space as determined in ISO 7176-5
Price Code: Gr 7
33 pages
Identical to ISO/TR 13570-2:2014

This part of ISO/TR 13570 lists the typical values and recommended limits of the dimensions obtained from measurements taken in accordance with ISO 7176 5. This part of ISO/TR 13570 lists the typical values and recommended limits of the important wheelchair dimensions (ready for occupation and folded or dismantled), space for pivoting or reversing between limiting walls and some dimensions worthwhile to estimate usability of the wheelchair as well as determination of the mass of the wheelchair. It is intended for use of prescribers, clinicians, wheelchair occupants or manufacturers. This part of ISO/TR 13570 lists the typical values and recommended limits of the dimensions when the wheelchair is occupied and some operating areas when performing special tasks encountered in every day's life. This part of ISO/TR 13570 lists the typical values and recommended limits of the technical dimensions critical to the performance of the wheelchair. This part of ISO/TR 13570 applies to manual wheelchairs and electrically powered wheelchairs (including scooters).

ZWS ISO 13606: Part 4:2019
Health informatics - Electronic health record communication
Part 4: Security
Price Code: Gr 7
23 pages
Identical to ISO 13606-4:2019

This document describes a methodology for specifying the privileges necessary to access EHR data. This methodology forms part of the overall EHR communications architecture defined in ISO 13606-1. This document seeks to address those requirements uniquely pertaining to EHR communications and to represent and communicate EHR-specific information that will inform an access decision. It also refers to general security requirements that apply to EHR communications and points at technical solutions and standards that specify details on services meeting these security needs.
NOTE: Security requirements for EHR systems not related to the communication of EHRs are outside the scope of this document.

ZWS ISO 13616: Part 1:2020
Financial services - International bank account number (IBAN)
Part 1: Structure of the IBAN
Price Code: Gr 7
7 pages
Identical to ISO 13616-1:2020

This document specifies the elements of an international bank account number (IBAN) used to facilitate the processing of data internationally in data interchange, in financial environments as well as within and between other industries. The IBAN is designed for automated processing but can also be used conveniently in other media interchange when appropriate (e.g. paper document exchange). This document does not specify internal procedures, file organization techniques, storage media or languages to be used in its implementation, nor is it designed to facilitate the routing of messages within a network. It is applicable to the textual data which might be conveyed through a system (network).

ZWS ISO 13616: Part 2:2020
Financial services - International bank account number (IBAN) Part 2: Role and responsibilities of the Registration Authority
Price Code: Gr 4
3 pages
Identical to ISO 13616-2:2020

This document describes the Registration Authority (RA) responsible for the registry of IBAN formats that conform with ISO 13616-1, the procedures for registering IBAN formats that conform with the ISO 13616 series and the structure of the registry.

ZWS ISO 13769:2018
Gas cylinders -Stamp marking
Price Code: Gr 6
17 pages
Identical to ISO 13769:2018

This document specifies stamp marking of transportable gas cylinders of volumes greater than 0,12 l and up to or equal to 150 l and tubes of volumes up to or equal to 3 000 l, including:
—steel and aluminium-alloy gas cylinders;
—composite gas cylinders;
—acetylene cylinders;
—liquefied petroleum gas (LPG) cylinders (see Annex A); and
—small cylinders (see Annex B).
Unless noted by exception, the use of "cylinder" in this document refers to the above types of cylinders.
Non-refillable cylinders are addressed by this standard.

ZWS ISO 13810:2015
Tourism services – Industrial tourism – Service provision
Price Code: Gr 6
17 pages
Identical to ISO 13810:2015

It establishes general requirements for industrial tourism offered by service providers intending to transmit knowledge of production, scientific and technical activities, both present and past, based on processes, know-how, products or services.

ZWS ISO 13875:2007
Liquid milk – Determination of acid –soluble b-Lactoglobulin content – reverse-phase HPLC method
Price Code: Gr.5
14 pages
Identical to ISO 13875:2005

Specifies a method for the quantitative determination of the b-Lactoglobulin content, soluble at pH 4,6 in liquid milk.

ZWS ISO 13940:2015
Health informatics - System of concepts to support continuity of care, structures and requirements
Price Code: Gr.9
149 pages
Identical to ISO 13940:2015

This International standard defines a system of concepts for different aspects of the provision of healthcare. The core business in healthcare is the interaction between subjects of care and healthcare professionals. Such interactions occur in healthcare/clinical processes and are the justification for the process approach of this International Standard. To be able to represent both clinical content and clinical context, this International Standard is related to a generic healthcare/clinical process model as well as comprehensive concept definitions and concept models for the clinical, management and resource aspects of healthcare services. In practice this International Standard covers the concept definitions needed whenever structured information in healthcare is specified as a requirement. The definitions are intended to refer to the conceptual level only and not to details of implementation. This International Standard will cover all levels of specifications in the development of
• logical reference models within the information viewpoint as a common basis for semantic interoperability on international, national or local levels,
• information systems, and
• information for specified types of clinical processes.
How to perform specific healthcare/clinical/informatics processes is not covered by this International Standard. Healthcare research processes and healthcare educational processes are not covered in this International Standard.

ZWS ISO 13972:2022
Health informatics - Clinical information models - Characteristics, structures and requirements
Price Code: Gr.8
76 pages
Identical to ISO 13972:2022

This document:
—Specifies clinical information models (CIMs) as health and care concepts that can be used to define and to structure information for various purposes in health care, also enabling information reuse;
—Describes requirements for CIMs content, structure and context and specification of their data elements, data element relationships, meta-data and versioning, and provides guidance and examples;
—Specifies key characteristics of CIMs used in conceptual and logical analysis for use cases such as (reference) architectures, information layers, EHR and PHR systems, interoperability, systems integration in the health domain, and secondary use of data including for public health reporting;
—Defines a Quality Management System (QMS) for a systematic and effective governance, quality management, and measurement of CIMs through their lifecycle of development, testing, distribution, application and maintenance;
—Provides principles for the transformation and application of clinical information models through the wide variation of health information technology.
This document excludes:
—Requirements on the content or application of any particular clinical information model or clinical information modelling methodology;
—Specific applications of clinical information models such as for dynamic modelling of workflow;
—Specifications for modelling entire domains or aggregates of many CIMs such as complete assessment documents or discharge summaries. It does not specify CIMs compositions;
—Specification of how to involve specific clinicians, how to carry out governance including information governance, or how to ensure patient safety.

ZWS ISO 14001:2026
Environmental management systems – Requirements with guidance for use
Price Code: Gr 10
14 pages
Identical to ISO 14001:2026
Replaces ZWS ISO 14001:2015

This document specifies the requirements for an environmental management system that an organization can use to enhance its environmental performance. It is intended for use by an organization seeking to manage its environmental responsibilities in a systematic manner that contributes to the environmental pillar of sustainability. This document helps an organization to achieve the intended outcomes of its environmental management system, which

provide value for the environment, the organization itself and interested parties. The intended outcomes of an environmental management system include:
— enhancing environmental performance;
— meeting compliance obligations;
— achieving environmental objectives.
This document is applicable to any organization, regardless of size, type or nature, and applies to the environmental aspects of its activities, products and services that the organization determines it can either control or influence considering a life cycle perspective. This document does not state specific environmental performance criteria. This document can be used in whole or in part to systematically improve environmental management. Claims of conformity to this document, however, are not acceptable unless all its requirements are incorporated into an organization's environmental management system and fulfilled without exclusion.

ZWS ISO 14002: Part 1: 2019
Environmental management systems – Guidelines for using ISO 14001 to address environmental aspects and conditions within an environmental topic area
Part 1: General
Price Code: Gr 10
12 pages
Identical to ISO 14002-1:2019

Gives general guidelines for organisations seeking to systematically manage environmental aspects or respond to the effects of changing environmentsl conditions within one or more environmental topic areas, based on ISO 14001. This document also constitutes a framework for common elements of subsequent parts of the ISO 14002 series.

ZWS ISO 14002: Part 2: 2023
Environmental management systems — guidelines for using iso 14001 to address environmental aspects and conditions within an environmental topic area
Part 2: Water
Price Code: Gr 7
36 pages
Identical to ISO 14002-2:2023

This document gives general guidelines for organizations seeking to address water-related environmental aspects, environmental impacts, environmental conditions, and the associated risks and opportunities within an environmental management system in accordance with ISO 14001. The document addresses issues for environmental management related to water quantity and quality, such as water withdrawal, efficient use of water, and water discharge, as well as approaches to cope with water-related events such as flooding and droughts. The document considers the interconnections of water with other environmental media and takes a holistic approach to the management of water due to its impacts on ecosystems, ecosystem services, related biodiversity, as well as human life and well-being. This document is applicable to organizations irrespective of their size, type, financial resources, location and sector. It is applicable to all types of water and considers a life cycle perspective.

ZWS ISO 14004:2016
Environmental management systems – General guidelines on implementation
Price Code: Gr 10
74 pages
Identical to ISO 14004:2016

Provides guidance for an organization on the establishment, implementation, maintenance and improvement of a robust, credible and reliable environmental management system.The guidance provided is intended for an organization seeking to manage its environmental responsibilities in a systematic manner that contributes to the environmental pillar of sustainability.

ZWS ISO 14005:2019
Environmental management systems — Guidelines for a flexible approach to phased implementation
Price Code: Gr. 8
37 pages
Identical to ISO 14005:2019

This document gives guidelines for a phased approach to establish, implement, maintain and improve an environmental management system (EMS) that organizations, including small and medium-sized enterprises (SMEs), can adopt to enhance their environmental performance. The phased approach provides flexibility that allows organizations to develop their EMS at their own pace, over a number of phases, according to their own circumstances. Each phase consists of six consecutive stages. The system's maturity at the end of each phase can be characterized using the five-level maturity matrix provided in Annex A. This document is applicable to any organization regardless of their current environmental performance, the nature of the activities undertaken or the locations at which they occur. The phased approach enables an organization to develop a system that ultimately satisfies the requirements of ISO 14001. The guidance does not cover those elements of specific systems that go beyond ISO 14001 and it is not intended to provide interpretations of the requirements of ISO 14001.

ZWS ISO 14006:2011
Environmental management systems – Guidelines for incorporating ecodesign
Price Code: Gr.10
32 pages
Identical to ISO 14006:2011

Provides guidelines to assist organizations in establishing, documenting, implementing, maintaining and continually improving their management of ecodesign as part of an environmental management systems (EMS).

ZWS ISO 14007:2019
Environmental management systems- guidelines for determining environmental costs and benefits
Price Code: Gr 10
25 pages
Identical to ISO 14007:2019

It gives guidelines for organisations on determining the environmental costs and benefits associated with their environmental aspects. It addresses the dependencies of an organization on the environment.eg natural resources and the context in which the organization operates or is located.

ZWS ISO 14008:2019
Monetary valuation Of Environmental Impacts And Related Environmental Aspects
Price Code: Gr.7
30 pages
Identical to ISO 14008:2019

This document specifies a methodological framework for the monetary valuation of environmental impacts and related envinmental aspects. Environmental impacts include impacts on human health, and on the built and natural environment. Environmental aspects include releases and the use of natural resources.

ZWS ISO 14009:2020
Environmental management systems — Guidelines for incorporating material circulation in design and development
Price Code: Gr.7
46 pages
Identical to ISO 14009:2020

This document gives guidelines for assisting organizations in establishing, documenting, implementing, maintaining and continually improving material circulation in their design and development in a systematic manner, using an environmental management system (EMS) framework.

ZWS ISO 14015:2022
Environmental management — Guidelines for environmental due diligence assessment
Price Code : Gr. 7
29 pages
Identical to ISO 14015:2022

This document gives guidance on how to conduct an environmental due diligence (EDD) assessment through a systematic process of identifying environmental aspects, issues and conditions as well as determining, if appropriate, their business consequences. This document does not provide guidance on how to conduct other types of environmental assessment, such as:
a) environmental audits;
b) environmental impact assessments;
c) environmental performance, efficiency, or reliability assessment;
d) intrusive environmental investigations and remediation.

ZWS ISO 14019: Part 1:2026
Sustainability information
Part 1: General principles and requirements for validation and verification
Price Code : Gr. 8
55 pages
Identical to ISO 14019-1:2026

This document specifies general principles and requirements for the validation/verification of declared sustainability information, including reporting on environmental, social, governance and other sustainability matters. This document is applicable to quantitative and qualitative information.
NOTE: These principles and requirements complement the set of rules and procedures that are provided in validation/verification programmes.
This document is also applicable as the basis for validation/verification activities that support other conformity assessment schemes.
This document is applicable to validation/verification bodies operating in accordance with ISO/IEC 17029.

ZWS ISO 14019: Part 2:2026
Sustainability information
Part 2: Principles and requirements for verification processes
Price Code : Gr. 7
35 pages
Identical to ISO 14019-2:2026

This document specifies requirements and gives guidance on the verification of declared sustainability information, including information presented in quantitative and qualitative formats.
NOTE 1: Declared sustainability information can include reporting on environmental, social, governance and other sustainability matters.
NOTE 2: A verification programme can include a combination of validation and verification activities, and result in mixed engagements.

ZWS ISO 14019: Part 4:2026
Sustainability information
Part 4: Principles and requirements for bodies validating and verifying sustainability information
Price Code : Gr. 6
17 pages
Identical to ISO 14019-4:2026

This document specifies principles and requirements for the competence, consistent operation and impartiality of bodies performing validation/verification of declared sustainability information.
This document is an application of ISO/IEC 17029, which contains general principles and requirements for the competence, consistent operation and impartiality of bodies performing validation/verification as conformity assessment activities. This document includes specific requirements related to bodies performing validation/verification of declared sustainability information in addition to the requirements of ISO/IEC 17029. Any programme requirements related to bodies are additional to the requirements of this document.

ZWS ISO 14025:2006
Environmental labels and declarations – Type III environmental declarations - Principles and procedures
Price Code: Gr 6
25 pages
Identical to ISO/TR 14025:2006

Establishes the principles and specifies the procedures for developing Type III environmental declaration programmes and Type III environmental declarations. It specifically establishes the use of the ISO 14040 series of standards in the development of Type III environmental declaration programme and Type III environmental declarations.

ZWS ISO 14026:2017
ARS ISO ZWS HT 14026:2024
Environmental labels and declarations — Principles, requirements and guidelines for communication of footprint information
Price Code: Gr.6
18 pages
Identical to ISO 14026:2017

Provides principles, requirements and guidelines for footprint communications for products addressing areas of concern relating to the environment.

ZWS ISO 14027:2017
Environmental labels and declarations – Development of product category rules
Price Code: Gr 6
25 pages
Identical to ISO/TS 14027:2017

Standard provides principles, requirements and guidelines for developing, reviewing, registering and updating PCR within type III environmental declaration or footprint communication programme based on life cycle assessment.

ZWS ISO/TS 14029:2022
ARSO ISO ZWS HT 14029:2024
Environmental statements and programmes for products — Mutual recognition of Environmental Product Declarations (EPDs) and footprint communication programmes
Price Code: Gr 6
20 pages
Identical to ISO TS 14029:2022

This document specifies requirements for mutual recognition arrangements (MRAs) and gives guidance on how to initiate developments on MRAs between environmental product declaration (EPD) and footprint communication programme operators. It addresses administrative and operational duties, through evaluation of such programmes, and how to externally communicate the results of the cooperation as well as plans for future related activities. This document is primarily applicable to MRAs but can also be a basis for bilateral agreements.

ZWS ISO 14030: Part 1:2021
Environmental performance evaluation — Green debt instruments
Part 1: Process for green bonds
Price Code: Gr 7
15 pages
Identical to ISO TS 14030-1:2021

This document establishes principles, specifies requirements and gives guidelines:
—for designating bonds which finance eligible projects, assets and supporting expenditures as “green”;
—for managing and reporting on the use of proceeds;
—for defining, monitoring and reporting on their environmental impacts;
—for reporting to interested parties;
—for validation and verification.
This document is applicable to any issuer of bonds.

ZWS ISO 14030: Part 2:2021
Environmental performance evaluation - Green debt instruments
Part 2: Process for green loans
Price Code: Gr 6
15 pages
Identical to ISO TS 14030-2:2021

This document establishes principles, specifies requirements and gives guidelines:
—for designating as “green” loans which finance eligible projects, assets and supporting expenditures;
—for managing and reporting on the use of proceeds;
—for defining, monitoring and reporting on the environmental impacts;
—for reporting to interested parties;
—for validation and verification.
This document is applicable to any borrower seeking financing by way of a green loan for eligible green projects, assets and supporting expenditures. It is also applicable to lenders.

ZWS ISO 14030: Part 3:2022
Environmental performance evaluation - Green debt instruments
Part 3: Taxonomy
Price Code: Gr 9
139 pages
Identical to ISO TS 14030-3:2022

This document defines a taxonomy of eligible investment categories for designation as green debt instruments, including bonds and loans. This document categorizes economic sectors and establishes criteria for determining the eligibility of projects, assets and supporting expenditures. It provides guidance on adaptation by sector in Annex A. It provides examples of thresholds and exclusions in Annex B.

ZWS ISO 14030: Part 4:2021
Environmental performance evaluation - Green debt instruments
Part 4: Verification programme requirements
Price Code: Gr 9
13 pages
Identical to ISO TS 14030-4:2021

This document specifies requirements for verification bodies performing verification of claims of conformity to ISO 14030-1 or ISO 14030-2 and to ISO 14030-3 or a suitable substitute taxonomy. Conformity to the requirements of this document is mandatory for the verification of statements made by green debt issuers, borrowers and lenders that claim that their products conform to the ISO 14030 series. This document specifies requirements for the validation of claims of eligibility made in conformity to ISO 14030-1:2021, 5.4, ISO 14030-2:2021, 6.3, and ISO 14030-2:2021, 7.3. This document also establishes requirements for the optional use of third-party marks of conformity.

ZWS ISO 14031:2021
Environmental management – Environmental performance evaluation – Guidelines
Price Code: Gr 7
46 pages
Identical to ISO 14031:2021

This document gives guidelines for the design and use of environmental performance evaluation (EPE) within an organization. It is applicable to all organizations, regardless of type, size, location and complexity. This document does not establish environmental performance levels. It is not intended for use for the establishment of any other environmental management system (EMS) conformity requirements. The guidance in this document can be used to support an organization’s own approach to EPE including its commitments to compliance with legal and other requirements, the prevention of pollution and continual improvement, among others.
NOTE: This document is a generic standard and does not include guidance on specific methods for valuing or weighting different kinds of impacts in different kinds of sectors, disciplines, etc. Depending on the nature of the organization’s activities, there is often a need to also go to other sources for additional information and guidance on sector-specific topics, different subject matters or different scientific disciplines.

ZWS ISO/TR 14032:2000
Environmental management- Examples of environmental performance evaluation (EPE).
Price Code: Gr 8
93 pages
Identical to ISO/TR 14012:1999

Provides examples of EPE that represent a renge of applications from simple to elaborate. They also represent a range of organizations (e.g. manufacturing and service companies, non-governmental organizations, government agencies, small, medium and large enterprises) and geographic locations.

ZWS ISO/TR 14033:2012
Environmental management – Quantitaive environmental information – Guidelines and examples
Price Code: Gr. 7
36 pages
Identical to ISO 14033:2012

Supports the application of standard sand reports on environmental management. It provides guidelines on how to acquire quantitative environmental information and data implement methodology. It gives guidelines to organizations on general principles, policy, strategy and activities necessary to obtain quantitative environmental information for internal and/or external purposes.

ZWS ISO 14034:2016
Environmental management – Quantitaive environmental information – Guidelines and examples
Price Code: Gr. 7
22 pages
Identical to ISO 14034:2016

Specifies principles ,procedures and requirements for environmental technology verification (ETV)

ZWS ISO 14040:2006 /Amd 1:2020
Environmental management – Life cycle assessment – Principles and framework
Price Code: Gr 6
20 pages
Identical to ISO 14040:2006/Amd:2020
Cancels and replaces ISO 14040:1997, 14041:1998, 14042:2000 and 14043:2000, ZWS ISO 14040:2006

Describes the principles and framework for life cycle assessment (LCA). It also covers life assessment (LCA) studies and life cycle inventory (LCI) Studies but however does not describe the life cycle assessment (LCA) technique in detail nor does it specify methodologies for the individual phases for the life assessment (LCA).

ZWS ISO 14044:2006/ Amd 2:2020
Environmental management – Life cycle assessment – Requirements and guidelines
Price Code: Gr 7
45 pages
Identical to ISO 14044:2006/Amd 2:2020
Superseeds ZWS ISO 14044:2006

Specifies requirements and provides guidelines for life cycle assessment (LCA). It covers life cycle assessment (LCA) studies and life cycle inventory (LCI) studies.

ZWS ISO 14045:2012
Environmental Management Eco-efficiency assessment of product systems – Principles ,requirements and guidelines
Price Code: Gr. 7
38 pages
Identical to ISO 14045:2012

Describes the principles,requirements and guidelines for eco-efficiency assessment for product systems.

ZWS ISO 14046:2014
Environmental management – Water footprint – principles requirements and guidelines
Price Code: Gr.7
37 pages
Identical to ISO 14046:2014

Specifies principles, requirements and guidelines related to water footprint assessment of products, proceses and organisations based on lifecycle assessment

ZWS ISO/TR 14047:2012
Environmental management – Life cycle impact assessment – Illustrative examples on how to apply ISO 14044 to impact assessment situations
Price Code: Gr. 9
85 pages
Identical to ISO/TR 14047:2012
Replaces ZWS ISO/TR 14047:2004

Provides examples to illustrate current practice of life cycle impact assessment in according to ISO 14044.They offer a way or ways rather than the unique way of applying ISO 14044.They reflect the key elements of the life cycle impact assessment (LCIA) phase of the LCA.

ZWS ISO/TS 14048:2002
Environmental management – Life cycle assessment – Data documentation format
Price Code: Gr. 7
41 pages
Identical to ISO/TS 14048:2002

Provides the requirements and a structure for a data documentation format, to be used for transparent and unambiguous documentation and exchange of Life Cycle Assessment (LCA) and Life Cycle Inventory (LCI) data,thus permitting consistent documentation of data,reporting of data collection,data calculation and data quality,by specifying and structuring relevant information.

ZWS ISO/TR 14049:2012
Environmental management – Life cycle assessment – Illustrative examples on how to apply ISO 14044 to goal and scope definition and inventory analysis
Price Code: Gr. 7
48 pages
Identical to ISO/TR 14049:2012
Replaces ZWS ISO 14049:2004

Provides examples about practices in carrying out an life cycle inventory analysis (LCI) as a means of satisfying certain provisions of ISO 14044:2006.These examples are only a sample of the possible cases satisfying the provisions of ISO 14044.They offer a way rather than the unique way for the application of ISO 14044.They reflect only portions of a complete LCI study.

ZWS ISO 14050:2020
Environmental management – Vocabulary
Price Code: Gr. 7
8 pages
Identical to ISO 14050:2020
Replaces ZWS ISO 14050:2020

Contains definitions of fundamental concepts related to environmental management, published in the ISO 14000 series of standards.

ZWS ISO 14051:2011
Environmental management – Material flow cost accounting – General framework
Price Code: Gr. 7
38 pages
Identical to ZWS ISO 14051:2011

Provides a ageneral framework for material flow cost accounting (MFCA). Under MFCA the flows and stocks of materials within an organization are traced and quantified in physical units (e.g. mass, volume) and the costs associated with those material flows are also evaluated. The resulting information can act as a motivator for organizations and managers to seek opportunities to simultaneously generate financial benefits and reduce adverse environmental impacts.

ZWS ISO 14052:2017
Environmental management – Material flow cost accounting – Guidance for practical implementation in a supply chain
Price Code: Gr. 6
12 pages
Identical to ZWS ISO 14052:2017

Provides guidance for the implementation of material flow cost accounting(MFCA) in supply chain.MFCA fundamentally traces the flow and stock of materials within an organization, quantifies these material flows in physical units and evaluates the cost associated with material flows and energy uses.

ZWS ISO 14053:2021
Environmental management – material flow cost accounting – guidance for phased implementation in organisations
Price Code: Gr. 6
17 pages
Identical to ZWS ISO 14053:2021

This document gives practical guidelines for the phased implementation of material flow cost accounting (MFCA) that organizations, including small and medium-sized enterprises (SMEs), can adopt to enhance their environmental performance and material efficiency. The phased approach provides flexibility that allows organizations to develop their MFCA activities at their own pace, according to their own circumstances. The resulting information can act as a motivator for organizations to seek opportunities to simultaneously generate financial and environmental benefits by reducing material losses and energy consumption. This document is applicable to any organization, regardless of its level of development, the nature of its activities, or the location at which these activities occur.

ZWS ISO 14055: Part 1:2017
Environmental – Guidelines for establishment good practices for establishing good practices for combatting land degradation and desertification
Price Code: Gr 6
33 pages
Identical to ISO 14055-1:2017

This document provides guidelines for establishing good practices in land management to prevent or minimize land degradation and desertification. It does not include management of coastal wetlands. This document defines a framework for identifying good practices in land management, based on assessment of the drivers of land degradation and risks associated with current and past practices. Guidance on monitoring and reporting implementation of good practices is also provided. This document is intended for use by private and public sector organizations with responsibility for land management and will allow an organization to communicate implementation of good practices.

ZWS ISO TR 14055: Part 2:2022
Environmental management — guidelines for establishing good practices for combatting land degradation and desertification
Part 2: Regional case study examples
Price Code: Gr 8
78 pages
Identical to ISO TS 14055(2022).

This document provides regional case studies of good practices in land management to prevent or minimize land degradation and desertification in support of ISO 14055-1:2017. The case studies are presented to facilitate the application of ISO 14055-1 across a wide of range of geographical and local conditions.

ZWS ISO/TR 14061:1999
Information to assist forestry organizations in the use of environmental management system standards ISO 14001 and 14004.
Price Code: Gr 8
65 pages
Identical to ISO?TR 14061:1998

Designed to be used in conjunction with ISO 14001 and ISO 14004. Provides a link between the management system approach of ISO 14001 and the range of forest policy and forest management performance objectives, including SFM principles and inter -governmental criteria and indicators, that a forestry organisation can consider.

ZWS ISO/TR 14062:2003
Environmental management – Integrating environmental aspects into product design and development.
Price Code: Gr 6
24 pages
Identical to ISO/TR 14062:2002

Describes concepts and current practices relating to the integration of environmental aspects into product design and development.

ZWS ISO 14063:2020
Environmental management — Environmental communication — Guidelines and examples
Price Code: Gr 7
32 pages
Identical to ISO 14063:2020
Replaces ISO 14063:2006

This document gives guidelines to organizations for general principles, policy, strategy and activities relating to both internal and external environmental communication. It uses proven and well-established approaches for communication, adapted to the specific conditions that exist in environmental communication. It is applicable to all organizations regardless of their size, type, location, structure, activities, products and services, and whether or not they have an environmental management system in place. It can be used in combination with any of the ISO 14000 family of standards, or on its own.
NOTE 1 A reference table to the ISO 14000 family is provided in Annex A.
NOTE 2 ISO 14020, ISO 14021, ISO 14024, ISO 14025 and ISO 14026 provide specific environmental communication tools and guidance relating to product labels and declarations.

ZWS ISO 14064: Part 1:2018
Greenhouse gases
Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.
Price Code: Gr 6
20 pages
Identical to ISO 14064-2:2006
Amended by MD 681

Specifies principles and requirements at the organization level for quantification and reporting of greenhouse gas (GHG) emissions and removals. It includes requirements for the design, development, management, reporting and verification of an organization's inventory.

Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements.
Price Code: Gr. 7
28 pages
Identical to ISO 14064-2:2006

Specifies principles and requirements and provides guidance at the project level for quantification, monitoring and reporting of activities intended to cause greenhouse gas (GHG) emission reductions or removal enhancements. It includes requirements for planning a GHG project, identifying and selecting GHG sources, sinks and reservoirs relevant to the project and baseline scenario, monitoring, quantifying, documenting and reporting GHG project performance and managing data quality.

Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions.
Price Code: Gr .7
34 pages
Identical to ISO 14972:1998
Amended by MD 681:2014

Specifies principles and requirements and provides guidance for those conducting or managing the validation and / or verification of greenhouse gas (GHG) assertions. It can be applied to organizational or GHG project quantification, including GHG quantification , monitoring and reporting carried out in accordance with ISO 14064-1or ISO 14064-2. It also specifies requirements for selecting GHG validations or verifiers, establishing the level of assurance, objective, criteria and scope, determining the validation or verification approach, assessing GHG data, information, information systems and controls, evaluating GHG assertions and preparing validation/verification statements.

ZWS ISO 14064: Part 5:2026
Greenhouse gases
Part 5: Guidance on activities and techniques used remotely in conducting verification and validation of greenhouse gas statements
Price Code: Gr .6
8 pages
Identical to ISO 14064-5:2026

This document gives guidance on planning, evaluating the risks, and conducting activities and techniques remotely for internal or external verification/validation (i.e. first, second and third party) of greenhouse gas (GHG) statements. It is applicable to cases where a verifier determines that the circumstances defined in ISO 14064-3:2019, 6.1.4.2, do not require an in-person site or facility visit or a validator determines that an evidence-gathering plan can include activities and techniques performed remotely as defined in ISO 14064-3:2019, 7.1.6. Activities and techniques applied remotely can be used by a verifier for activities such as inquiry of persons and documents, analytical testing, recalculation, estimate testing, cross-checking and reconciliation when a verifier's risk assessment does not require the use of on-site activities and techniques. Activities and techniques applied remotely can be used by a validator when their use does not compromise the validator's ability to assess whether the characteristics of GHG activities (see ISO 14064-3:2019, Clause 7) will meet the needs of intended users. This document is applicable to verifications/validations that use:
—a combination of activities and techniques applied remotely and on-site;
—exclusively activities and techniques applied remotely.
NOTE: Legislation can differ from jurisdiction to jurisdiction. It is the user's responsibility to determine how applicable legal requirements relate to this document.

ZWS ISO 14065:2020
Greenhouse gases — General principles and requirements for bodies validating and verifying environmental information
Price Code: Gr. 7
32 pages
Identical to ISO 14065:2020
Superseeds ZWS ISO 14065:2007

Follow ISO/IEC 17029:2019, Clause 1. This document specifies principles and requirements for bodies performing validation and verification of environmental information statements. Any programme requirements related to bodies are additional to the requirements of this document..

ZWS ISO 14066:2011
Greenhouse gases – Competence requirements for greenhouse gases validation teams and verification teams
Price Code: Gr. 5
25 pages
Identical to ISO 14066:2011

Specifies competence requirements for validation teams and verification teams.The standard complements the implementation of ISO 14065.

ZWS ISO/TS 14067:2013
Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification and communicstion
Price Code: Gr. 8
59 pages
Identical to ISO/TS 14067:2013

Specifies principles, requirements and guidelines for the quantification and communication of the carbon footprint of a product (CFP) based on international standards on life cycle assessment (ISO 14040 and ISO 14044) for quantification and on environmental labels and declarations (ISO 14020, ISO 14024 and ISO 14025) for communication.

ZWS ISO 14068:Part 1:2023
Climate change management — Transition to net zero
Part 1: Carbon neutrality
Price Code: Gr. 7
42 pages
Identical to ISO 14068:2023

This document specifies principles, requirements and guidance for achieving and demonstrating carbon neutrality through the quantification, reduction and offsetting of the carbon footprint. This document defines terms used in relation to carbon neutrality and provides guidance on the actions necessary to achieve and demonstrate carbon neutrality. In accordance with common practice, it uses the word "carbon" to refer to all greenhouse gases (GHGs) in compound expressions such as "carbon neutrality". It is applicable to a wide range of subjects such as organizations (including companies, local authorities and financial institutions) and products (goods or services, including buildings and events).

It is not intended to be used for territories (such as regions, countries, states or cities), including signatories to the United Nations Framework Convention on Climate Change (UNFCCC) when reporting national outcomes for the purposes of that Convention. This document establishes a hierarchy for carbon neutrality where GHG emission reductions (direct and indirect) and GHG removal enhancements within the value chain take priority over offsetting. It includes requirements for carbon neutrality commitments and making carbon neutrality claims. This document is GHG programme neutral. If a GHG programme is applicable, the requirements of that GHG programme are additional to the requirements of this document.

ZWS ISO/TS 14074:2022
Environmental management — life cycle assessment — principles, requirements and guidelines for normalization, weighting and interpretation
Price Code: Gr. 6
13 pages
Identical to ISO TS 14074:2022.

This document specifies principles, requirements and guidelines for normalization, weighting and life cycle interpretation, in addition to those given in ISO 14040 and ISO 14044.
The document is applicable to any life cycle assessment (LCA) and footprint quantification study.
In particular, this document addresses:
—the use of normalization and its limitations;
—the use of weighting and its limitations;
—the selection or development of weighting factors;
—the generation of single scores;
—requirements that relate to documentation and reporting.
For the interpretation phase, it provides, in addition to ISO 14044, procedures and guidance for:
—performing completeness, sensitivity and consistency checks;
—addressing uncertainties and limitations;
—documenting conclusions and recommendations.
This document does not specify the composition of panels for weighting nor does it specify multi-criteria decision analysis.
This document does not intend to recommend or require a specific weighting approach or method or any priority of one weighting approach or method over another as they are based on value choices.
Organizations have the flexibility to implement LCA in accordance with the intended application and the requirements of the organization.

ZWS ISO 14090:2019
Adaptation to climate change – Principles, requirements and guidelines
Price Code: Gr 7
28 pages
Identical to ISO 14090:2019

This document specifies principles, requirements and guidelines for adaptation to climate change. This includes the integration of adaptation within or across organizations, understanding impacts and uncertainties and how these can be used to inform decisions. This document is applicable to any organization, regardless of size, type and nature, e.g. local, regional, international, business units, conglomerates, industrial sectors, natural resource management units. This document can support the development of sector-, aspect- or element-specific climate change adaptation standards.

ZWS ISO 14091:2021
Adaptation to climate change — Guidelines on vulnerability, impacts and risk assessment
Price Code: Gr 8
40 pages
Identical to ISO 14091:2021

This document gives guidelines for assessing the risks related to the potential impacts of climate change. It describes how to understand vulnerability and how to develop and implement a sound risk assessment in the context of climate change. It can be used for assessing both present and future climate change risks. Risk assessment according to this document provides a basis for climate change adaptation planning, implementation, and monitoring and evaluation for any organization, regardless of size, type and nature.

ZWS ISO 14092:2026
Climate change adaptation — Requirements and guidance on adaptation planning for local governments and communities
Price Code: Gr 7
46 pages
Identical to ISO 14092:2026

This document specifies requirements and gives guidance on adaptation planning for local governments and communities.
This document supports local governments and communities in adapting to climate change based on vulnerability, impacts and risk assessments. In working with relevant interested parties, it also supports the setting of priorities, and the development and subsequent updating of an adaptation plan.

ZWS ISO 14093:2022
Mechanism for financing local adaptation to climate change – Performance-based climate resilience grants – Requirements and guidelines
Price Code: Gr 8
44 pages
Identical to ISO 14093:2022

This document gives guidelines for assessing the risks related to the potential impacts of climate change. It describes how to understand vulnerability and how to develop and implement a sound risk assessment in the context of climate change. It can be used for assessing both present and future climate change risks. Risk assessment according to this document provides a basis for climate change adaptation planning, implementation, and monitoring and evaluation for any organization, regardless of size, type and nature.

ZWS ISO 14096:2005
Non-Destructive testing – Qualification of radiographic film digitasation systems
Part 1: Definitions, quantitative measurements of image quality parameters, standard reference film and qualitative control
Price Code: Gr 6
11 pages
Identical to ISO 14096.1:2005

The standard specifies procedures for the evaluation of basic performance parametersof radiographic film digitisation process such as spartial linearity, density contrast sensitivity and characteristic transfer curve.

Part 2: Minimum requirements
Price Code: Gr 6
5 pages
Identical to ISO 14096.2:2005

The standard specifies three film-digitisation quality classes for the requirement of non-destructive testing. The selected class depends on the radiation energy, penetrated material thickness and the quality level of the original radiographic film.

ZWS ISO/TS 14071:2024
Life cycle assessment - Critical Review processes and reviewer competencies -Additional requirements and guidelines to ISO 14044:2006
Price Code: Gr. 6
12 pages
Identical to ISO/TS 14071:2024

This document specifies requirements and gives guidance for conducting a critical review of any type of life cycle assessment (LCA) study and the competencies required for the review. It provides additional requirements and guidance to ISO 14040 and ISO 14044.
This document provides:
—details of a critical review process, including clarification with regard to ISO 14044;
—guidance to deliver the required critical review process, linked to the goal of the LCA and its intended use;
—content and deliverables of the critical review process;
—guidance to improve the consistency, transparency, efficiency and credibility of the critical review process;
—the required competencies for the reviewer(s) (internal, external and panel member);
—the required competencies to be represented by the panel as a whole.
This document can be applicable to other standards that require independent review of LCA-based procedures and information (e.g. ISO 14045, ISO 14046, ISO 14025, ISO 14067), and can be adapted to the specific fields of application. Other reference standards can be included in the critical review process.
This document does not apply to
a)critical reviews performed prior to its publication, and
b)the applications of LCA (as illustrated in ISO 14040:2006, Figure 1).

ZWS ISO 14072:2024
Environmental management -Life cycle assessment - Requirements and guidance for organizational life cycle assessment
Price Code: Gr. 7
25 pages
Identical to ISO/TS 14072:2024

This document specifies additional requirements and gives guidance for an effective application of ISO 14040:2006 and ISO 14044:2006 to organizations.
This document provides:
—the application of life cycle assessment (LCA) principles and methodology to organizations;
—the benefits that LCA can bring to organizations by using LCA methodology at an organizational level;
—the system boundary;
—specific considerations when dealing with life cycle inventory (LCI), life cycle impact assessment (LCIA) and interpretation;
—the limitations regarding reporting, environmental declarations and comparative assertions.
This document is applicable to any organization that has interest in applying LCA. It is not intended for the interpretation of ISO 14001 and specifically covers the goals of ISO 14040 and ISO 14044.
This document is applicable to an organization for a given time period. This document is applicable to all types of organizations. If properly justified, application of this document to segments or selected companies of an organization is possible.

ZWS ISO/TR 14073:2017
Environmental management – Water footprint
Price Code: Gr. 8
27 pages
Identical to ISO/TS 14073:2017

Provides illustrative exaexamples of how to apply ISO 14046 ,in order to asses the water footprint of products, processes and organisations based on life cycle assessment.

ZWS ISO 14075:2024
Environmental management — Principles and framework for social life cycle assessment
Price Code: Gr. 7
31 pages
Identical to ISO/TS 14075:2024

This document establishes principles and framework, specifies requirements and gives guidance for the social life cycle assessment (S-LCA) of a product. The framework supports addressing the United Nations (UN) Sustainable Development Goals (SDG) and reaching the targets by identifying the enabling aspects from the inhibiting ones (with detrimental contributions). The document provides goal and scope definition, inventory analysis, impact assessment, interpretation and reporting of the S-LCA of a product.

ZWS ISO/TS 14076:2025
Environmental management - Environmental techno-economic assessment - Principles, requirements and guidance
Price Code: Gr. 7
29 pages
Identical to ISO/TS 14075:2025

This document provides principles, requirements and guidance for performing an environmental techno-economic assessment (eTEA). eTEAs provide economic analyses combined with an assessment of environmental impacts. This document specifies requirements for documenting the results, underlying assumptions, parameters and methodologies used in an eTEA. This document is applicable to process systems of any size or production scale.

ZWS ISO 14284:2022
Steel and iron — Sampling and preparation of samples for the determination of chemical composition
Price Code: Gr. 7
44 pages
Identical to ISO 14284:2022
Replaces COMESA ZWS HS ISO 14284:2006

This document specifies methods for sampling and sample preparation for the determination of the chemical composition of pig irons, cast irons and steels. Methods are specified for both liquid and solid metal.

ZWS ISO 14654:1999
Epoxy-coated steel for the reinforcement of concrete
Price Code: Gr. 7
36 pages
Identical to ISO 14654:1999

This International Standard specifies requirements for fusion-bonded epoxy-coated post-fabricated and prefabricated steel bar, wire and welded fabric for the reinforcement of concrete.
This International Standard permits the application of either flexible (type A) or nonflexible (type B) coatings. Steel reinforcing bar, wire and welded fabric coated with a nonflexible (type B) coating shall not be fabricated after coating.

ZWS ISO 14655:1999
Epoxy-coated strand for the prestressing of concrete
Price Code: Gr. 7
23 pages
Identical to ISO 14655:1999

This International Standard specifies requirements for fusion-bonded, epoxy-coated, or epoxy-coated and filled, seven-wire prestressing steel strand for the prestressing of concrete.
NOTE: Use of epoxy-coated strand in pre-tensioned applications such as fire-rated construction should be approached with caution.

ZWS ISO 14656:1999
Epoxy powder and sealing material for the coating of steel for the reinforcement of concrete
Price Code: Gr. 5
16 pages
Identical to ISO 14656:1999

This International Standard specifies requirements for epoxy powders for use in preparing fusion-bonded epoxycoated steel reinforcing bar, wire and welded fabric. This International Standard also includes requirements for sealing material used to repair damaged areas and cut ends on reinforcing steel. This International Standard defines a flexible (type A) coating and a nonflexible (type B) coating. The adhesion and moisture resistance of fusion-bonded epoxy powder coatings can be enhanced by certain formulation designs. These coating enhancements typically result in a reduction of the coating's flexibility.

ZWS ISO 14657:2005
Zinc-coated steel for the reinforcement of concrete
Price Code: Gr. 5
21 pages
Identical to ISO 14657:2005

This International Standard specifies requirements for hot-dip zinc (galvanized) coating on steel reinforcing bars, wire and welded fabric used in the reinforcement of concrete. It specifies three classes, class A, class B and class C coatings, which differ in coating mass (see 6.2.3).
This International Standard does not apply to hot-dip zinc-coated reinforcements for prestressing or components of these reinforcements.

ZWS ISO 14688: Part 1:2017
Geotechnical investigation and testing - Identification and classification of soil
Part 1: Identification and description
Price Code: Gr. 7
23 pages
Identical to ISO 14688-1:2017

This document specifies the rules for the identification and description of soils and is intended to be read in conjunction with ISO 14688 2, which outlines the basis of classification of those material characteristics most commonly used for soils for engineering purposes. The relevant characteristics could vary and therefore, for particular projects or materials, more detailed subdivisions of the descriptive and classification terms could be appropriate. This document specifies procedures for the identification and description of soils based on a flexible system for use by experienced persons, covering both material and mass characteristics by visual and manual techniques. Details are given of the individual characteristics for identifying soils and the descriptive terms in regular use, including those related to the results of hand tests carried out in the field as part of the descriptive process. This document is applicable to the description of soils for engineering purposes which can be those laid by natural processes, those laid by man or comprise synthetic materials.
NOTE 1: The identification and description of rocks are covered by ISO 14689-1. Identification and description of materials intermediate between soil and rocks are carried out using the procedures in this document, ISO 14688 2 and ISO 14689-1 as appropriate.
NOTE 2: The identification and classification of soil for pedological purposes, as well as in the framework of measurements for soil protection and for remediation of contaminated areas, is covered by ISO 25177.

ZWS ISO 14688: Part 2:2017
Geotechnical investigation and testing - Identification and classification
Part 2: Principles for a classification
Price Code: Gr. 5
11 pages
Identical to ISO 14688-2:2017

This document specifies the basic principles for classification of those material characteristics most commonly used for soils for engineering purposes. It is intended to be read in conjunction with ISO 14688 1, which gives rules for the identification and description of soils. The relevant characteristics could vary and therefore, for particular projects or materials, more detailed subdivisions of the descriptive and classification terms could be appropriate. Due to differences in local geological conditions, practices to enhance relevant classification criteria are used. The classification principles established in this document allow soils to be classified into groups of similar composition and geotechnical properties, based on the results of field and laboratory tests with respect to their suitability for geotechnical engineering purposes. This document is applicable to natural soil in situ, natural soil reworked artificially and synthetic materials. A more detailed classification specific to use in earthworks is given in EN 16907 2.
NOTE 1: Identification and description of rocks are covered by ISO 14689. Identification and description of materials intermediate between soil and rock are carried out using the procedures in ISO 14688 1, this document and ISO 14689, as appropriate.
NOTE 2: The identification and classification of soil for pedological purposes, as well as in the framework of measurements for soil protection and for remediation of contaminated areas, is covered by ISO 25177.

ZWS ISO 14737:2021
Carbon and low alloy cast steels for general applications
Price Code: Gr. 5
10 pages
Identical to ISO 14737:2021
Replaces COMESA ZWS HS ISO 14737:2006

This document specifies requirements for carbon and low alloy cast steel grades for general applications.
NOTE 1: Annex A provides guidance on welding.
NOTE2: Annex B gives information on ISO grade designation and available UNS numbers which are similar to the ISO grade designation.

ZWS ISO/IEC 14763:2019
Information technology – Implementation and operation of customer premises cabling
Part 2: 2019: Planning and installation
Price Code: Gr. 10
172 pages
Identical to ISO/IEC TS 14763:2019

This part of ISO/IEC 14763 specifies requirements for the planning, installation and operation of telecommunications cabling and cabling infrastructures including cabling, pathways, spaces and telecommunications bonds (other than that specified in ISO/IEC 30129) in support of generic cabling standards and associated documents.
The following aspects are addressed:
a)specification of the installation;

b)quality assurance;
c)installation planning;
d)installation practice;
e)documentation;
f)administration;
g)testing;
h)inspection;
i)operation;
j)maintenance;
k)repair.
The requirements and recommendations of Clauses 5 to 14 are premises-independent. Annexes C through G contain premises-specific amendments of and additions to these requirements and recommendations. In addition, this document describes the methodology for the assessment of spaces, pathways, pathway systems and cabling (either installed or planned) in support of remote powering objectives. This document excludes specific requirements applicable to other cabling systems (e.g. power supply cabling); however, it takes account of the effects other cabling systems may have on the installation of telecommunications cabling (and vice versa) and gives general advice. This document excludes those aspects of installation associated with the transmission of signals in free space between transmitters, receivers or their associated antenna systems (e.g. wireless, radio, microwave or satellite). This document is applicable to certain hazardous environments but does not exclude additional requirements which are applicable in particular circumstances (e.g. electricity supply and electrified railways). Safety and electromagnetic compatibility (EMC) requirements are outside the scope of this document and are covered by other standards and regulations. However, information given in this document can be of assistance in meeting these standards and regulations.

ZWS ISO 14785:2014
Adventure tourism – Information for participation
Price Code: Gr 5
12 pages
Identical to ISO 14785:2014

Establishes minimum quality requirements for services provided by tourist information offices (TIO) of any type and size, whether publicly or privately operated, in order to satisfy visitors' expectation.

ZWS ISO 14837:2005
Mechanical _ Vibration – Ground-borne noise and vibration arising from rail systems.
Part 1: General guidance
Price Code: Gr .7
45 pages
Identical to ISO 14837.1:2005
Provides general guidance on ground-borne vibration generated by the operation of rail systems and the resultant ground-borne noise in buildings

ZWS ISO 14972:2005
Sterile obturators for single–use with over–needle peripheral intravascular catheters.
Price Code: Gr .3
6 pages
Identical to ISO 14972:1998

Specifies requirements for obturators supplied in the sterile condition and intended for single use for plugging over – needle peripheral catheters.

ZWS ISO 15022: Part 1:1999
Securities — Scheme for messages (Data Field Dictionary)
Part 1: Data field and message design rules and guidelines
Price Code: Gr. 6
23 pages
Identical to ISO 15022:1999
This part of ISO 15022 consists of:
- the description of the Enhanced ISO 7775 syntax and message design rules;
- the contents and organization of the dictionary of Enhanced ISO 7775 and EDIFACT fields for securities messages; and
- the contents and organization of the catalogue of securities messages built in the Enhanced ISO 7775 and EDIFACT syntaxes. It refers to the EDIFACT syntax when necessary to ensure an easy cross-reference between Enhanced ISO 7775 concepts and EDIFACT concepts. The EDIFACT syntax is not described in this part of ISO 15022; it is defined in ISO 9735 which is incorporated by reference. This part of ISO 15022 is used for electronic data interchange between securities industry participants, independently of the communication network. Network dependent rules, for example, on how to specify where and when the message is to be sent, message acknowledgement and message protection are outside the scope of this part of ISO 15022.

The maintenance of this part of ISO 15022 is described in part 2 of ISO 15022.

ZWS ISO 15022: Part 2:1999
Securities — Scheme for messages (Data Field Dictionary)
Part 2: Maintenance of the data field dictionary and catalogue of messages
Price Code: Gr .6
13 pages
Identical to ISO 15022-2:1999

This part of ISO 15022 describes the responsibilities of the parties involved in the maintenance of the Data Field Dictionary (DD) and the Catalogue of Messages (CM). There is a Registration Authority (RA) which is the operating authority responsible for maintaining the Data Field Dictionary and the Catalogue of Messages, and a Registration Management Group (RMG). The RMG is the governing body of the RA, and monitors its performance.

ZWS ISO 15161:2002
Guidelines on the application of ISO 9001:2000 for the food and drink industry.
Price Code: Gr.8
33 pages
Identical to ISO 15161:2001

Gives guidance to organizations in applying requirements of ISO 9001 in the food and drink industry.

ZWS ISO 15163:2012
Milk and milk products – Calf rennet and adult bovine rennet – Determination by chromatography of chymosin and bovin pepsin contents
Price Code: Gr. 6
19 pages
Identical to ISO 15163:2012

Specifies a reference method for the determination of the amounts of chymosin and bovine pepsin present in a test sample of calf rennet and adult bovine rennet.In addition it can be used for mixtures of calf/bovine rennet with fermentation-produced bovine chymosin (FPC).

ZWS ISO 15174:2012
Milk and milk products – Microbial coagulants – Determination of total milk-clotting activity
Price Code: Gr. 6
9 pages
Identical to ISO 15174:2012

Specifies a method for comparison of the total milk-clotting activity of a microbial coagulant sample with the milk-clotting activity of an international microbial coagulant reference standard on a standard milk substrate prepared with a calcium chloride solution of concentration 0,5 g/l (Ph – 6.5).

ZWS ISO 15189:2022
Medical laboratories – Requirements for quality and competence
Price Code: Gr.10
61 pages
Identical to ISO 15189:2022
Replaces ZWS ISO 15189:2012

This document specifies requirements for quality and competence in medical laboratories. This document is applicable to medical laboratories in developing their management systems and assessing their competence. It is also applicable for confirming or recognizing the competence of medical laboratories by laboratory users, regulatory authorities and accreditation bodies. This document is also applicable to point-of-care testing (POCT).

ZWS ISO 15190:2020
Medical laboratories – Requirements for safety
Price Code: Gr .7
39 pages
Identical to ISO 15195:2003

Specifies requirements for safe practices in the medical laboratory.

ZWS ISO 15193:2011
In vitro diagonistic medical devices – Measurement of quantities in samples of biological origin – Requirements for content and presentation of reference measurement procedures
PriceCode: Gr.6
19 pages
Identical to ISO 15193:2009

Specifies requirements for the content of a reference measurement procedures for in vitro diagonistic medical devices and medical laboratories.

ZWS ISO 15194:2011
In vitro diagonistic medical devices – Measurement of quantities in samples of biological origin – Requirements for certified reference materials and the content of supporting documentation
Price Code: Gr.5
16 pages
Identical to ISO 15194:2009

Specifies requirements for certified reference materials and the content of their supporting documentation , in order for them to be considered of higher metrological order in accordance with ISO 17511.

ZWS ISO 15195:2004
Laboratory medicine – Requirements for reference measurements measurement laboratories
Price Code: Gr 5
12 pages
Identical to ISO 15195:2003

Gives specific requirements for reference measurement laboratories in laboratory medicine.Examination of properties with results on a nominal or ordinal scale are not included.

ZWS ISO 15197:2013
In vitro diagnostic test systems – Requirements for blood-glucose monitoring systems for self-testing in managing diabetes mellitus
Price Code: Gr.7
51 pages
Identical to ISO 15197:2013

Specifies requirements for in vitro glucose monitoring systems that measure glucose concentrations in capillary blood samples for specific design verification procedures and for the validation of performance by the intended users These systems are intended for self measurementby lay persons for management of diabetes.

ZWS ISO 15198:2004
Clinical laboratory medicine – In vitro diagnostic medical devices – Validation of user quality control procedures by the manufacturer
Price Code: Gr. 5
10 pages
Identical to ISO 15198:2004

Describes a process for manufacturers of in vitro diagnostic medical devices to validate quality control procedures they recommend to their users.

ZWS ISO 15259:2023
Air quality — Measurement of stationary source emissions — Requirements for measurement sections and sites and for the measurement objective, plan and report
Price Code: Gr. 10
79 pages
Identical to ISO 15259:2023

This document specifies the following requirements:
a) requirements for measurement sections and sites with respect to performing emission measurements;
b) requirements for the measurement objective, plan and report of emission measurements of air pollutants and reference quantities to be carried out in waste gas ducts at industrial plants. This document applies to periodic measurements using manual or automated reference methods (RM). This document specifies generic principles which can be applied to perform emission measurements at different plant types and to meet different measurement objectives.
NOTE: The measurement objective is specified by the customer. The testing institute identifies the measurement objective and related regulatory requirements at the beginning of the measurement planning. Where measurements are being made for regulatory purposes, the customer should seek approval from the competent authority. This document specifies procedures for taking representative samples in waste gas ducts. This document specifies a procedure for finding the best available sampling point for automated measuring systems used for continuous monitoring of emissions.
The planning and reporting aspects of this document are applicable to emission measurements at diffusive and fugitive emission sources. This document does not address aspects of structural safety of chimneys and ducts, construction of working platforms and safety of personnel using them.

ZWS ISO 15270:2008
Plastics - Guidelines for the recovery and recycling of plastics waste
Price Code: Gr. 5
14 pages
Identical to ISO 15270:2008

This International Standard provides guidance for the development of standards and specifications covering plastics waste recovery, including recycling. The standard establishes the different options for the recovery of plastics waste arising from pre-consumer and

post-consumer sources as illustrated diagrammatically in Annex A. The standard also establishes the quality requirements that should be considered in all steps of the recovery process, and provides general recommendations for inclusion in material standards, test standards and product specifications. Consequently, the process stages, requirements, recommendations and terminology presented in this International Standard are intended to be of general applicability.

ZWS ISO 15394:2017
Packaging - Bar code and two-dimensional symbols for shipping, transport and receiving labels
PriceCode: Gr. 8
67 pages
Identical to ISO 15394:2017

This document specifies the minimum requirements for the design of labels containing linear bar code and two-dimensional symbols on transport units to convey data between trading partners; provides for traceability of transported units using a unique transport unit identifier (licence plate); provides guidance on the formatting on the label of data presented in linear bar code, two-dimensional symbol or human-readable form; provides specific recommendations regarding the choice of bar code symbologies, and specifies quality requirements; provides recommendations as to label placement, size and the inclusion of free text and any appropriate graphics; provides guidance on the selection of the label material. This document is not applicable to the direct printing on to kraft coloured corrugated surfaces. Guidance on the direct printing of bar code symbols on to kraft coloured corrugated surfaces are provided in references such as The Fibre Box Handbook[10].

ZWS ISO 15489: Part 1:2016
Information and documentation – Records management
Part 1: Concepts and principles
Price Code: Gr. 7
21 pages
Identical to ISO 15489-1:2016

This part of ISO 15489 defines the concepts and principles from which approaches to the creation, capture and management of records are developed. This part of ISO 15489 describes concepts and principles relating to the following:
a) records, metadata for records and records systems;
b) policies, assigned responsibilities, monitoring and training supporting the effective management of records;
c) recurrent analysis of business context and the identification of records requirements;
d) records controls;
e) processes for creating, capturing and managing records.
This part of ISO 15489 applies to the creation, capture and management of records regardless of structure or form, in all types of business and technological environments, over time.

Part 2: Guidelines
Price Code: Gr.7
9 pages
Identical to ISO/TR 15489-2:2001

Provides one methodology that will facilitate the implementation of ISO 15489-1 in all organizations that have a need to manage their records. Gives an overview of the processes and factors to consider in organizations wishing to comply with ISO 15489-1.

ZWS ISO 15598:2003
Tea – Determination of crude fibre content
Price Code: Gr.4
7 pages
Identical to ISO 15589:1999

Specifies a method for the determination of crude fibre content in tea.

ZWS ISO 15705: 2002
Water quality — Determination of the chemical oxygen demand index (ST-COD) – Small-scale sealed-tube method
Price Code: Gr.6
18 pages
Identical to ISO 15705:2002
Supersedes ZWS 495:1995
This International Standard specifies a method for the determination of the chemical oxygen demand (ST-COD) using the sealed tube method. The test is empirical and is applicable to any aqueous sample, which includes all sewage and waste waters. The method is applicable to undiluted samples having ST-COD values up to 1 000 mg/l and a chloride concentration not exceeding 1 000 mg/l. Samples with higher ST-COD values require predilution. For samples with a low COD, the precision of the measurement will be reduced and the detection limit will be poorer. Samples with a high chloride concentration will need to be prediluted to give a chloride concentration of approximately 1 000 mg/l or less before analysis. The method oxidizes almost all types of organic compounds and most inorganic reducing agents. It has a detection limit (4,65 times the within-batch standard deviation of a blank or very low standard) of 6 mg/l for photometric detection at 600 nm, and 15 mg/l for titrimetric detection as reported by one laboratory comparing the photometric and titrimetric techniques using a commercial test kit with a range up to 1 000 mg/l. The titrimetric part of this International Standard is applicable to samples exhibiting an atypical colour or turbidity after the digestion stage.
NOTE A comparison between the full-scale method (ISO 6060) and the method of this International Standard is given in annex A. A discussion of possible hazards is given in annex B. Information on commercial small-scale test kits is given in annex C. The method can be used over a reduced range (see annexes D and E). For checking the chloride concentration, see annex F.

ZWS ISO 15708:2011
Non-Destructive – Radition methods – Computed tomography
Part 1: Principles
Price Code: Gr. 8
64 pages
Identical to ISO 15708.1:2002

It gives guidance for, and defines terms for addressing the general principles of X-ray CT as they apply to industrial imaging. It also gives guidelines for a consistent set of CT performance parameter definition, including how these performance parameters relate to CT system specification.

Part 2: Examination practices
Price Code: Gr. 6
19 pages
Identical to ISO 15708.2:2002

It gives guidance for procedures for procedures for procedures for performing CT examination. It is intended to address the general use of CT technology and thereby facilitate its use.

ZWS ISO 15835: Part 1:2018
Steels for the reinforcement of concrete - Reinforcement couplers for mechanical splices of bars
Part 1: Requirements
Price Code: Gr. 7
9 pages
Identical to ISO 15835-1:2018

This document specifies requirements for couplers for the mechanical splicing of steel reinforcing bars. More onerous requirements can be specified by the customer. This document is applicable to the continuous production of coupler components. It is intended to be used with adequate control measures for the processing of rein-

forcing bars, i.e. the production of the mechanical splice. This document specifies requirements for couplers used for mechanical splices in reinforced concrete structures under predominantly static loads. It specifies additional requirements for couplers used in structures subject to high-cycle elastic fatigue loading and/or low-cycle elastic-plastic reverse loading.
NOTE: ISO 15835-3 specifies the quantity of tests. Compression-only couplers such as end-bearing sleeves are not covered by the ISO 15835 series.

ZWS ISO 15835: Part 2:2018
Steels for the reinforcement of concrete - Reinforcement couplers for mechanical splices of bars
Part 2: Test methods
Price Code: Gr. 6
9 pages
Identical to ISO 15835-2:2018

This document specifies test methods applicable to couplers for mechanical splices of steel reinforcing bars. This document is applicable to the various standards for steel reinforcing bars as well as the various reinforced concrete design standards.

ZWS ISO 15835: Part 3:2018
Steels for the reinforcement of concrete - Reinforcement couplers for mechanical splices of bars
Part 3: Conformity assessment scheme
Price Code: Gr. 6
6 pages
Identical to ISO 15835-3:2018

This document specifies rules for the certification and for the self-evaluation of couplers to be used for the mechanical splicing of steel reinforcing bars. It includes requirements for the control of the manufacturing process of the couplers and for the verification of their conformity in the form of mechanical splices.

ZWS ISO 15883: Part 2:2023
Washer disinfectors
Part 2: Requirements and tests for washer-disinfectors employing thermal disinfection for critical and semi-critical medical devices
Price Code: Gr. 6
20 pages
Identical to ISO 15883-2:2023

This document specifies requirements for washer-disinfectors (WD) that are intended for use for the cleaning and thermal disinfection, in a single operating cycle, of reusable medical devices such as surgical instruments, anaesthetic equipment, bowls, dishes and receivers, utensils and glassware. The requirements specified in this document are applicable in conjunction with the general requirements specified in ISO/DIS 15883 1:2020. The specified performance requirements of this document might not ensure the inactivation or removal of the causative agent(s) (prion protein) of transmissible spongiform encephalopathies..

ZWS ISO 15883: Part 3:2006
Washer disinfectors
Part 3: Requirements and tests for washer-disinfectors employing thermal disinfection for human waste containers
Price Code: Gr. 5
20 pages
Identical to ISO 15883-3:2006

This part of ISO 15883 specifies particular requirements for washer-disinfectors (WD) that are intended to be used for emptying, flushing, cleaning and thermal disinfection of containers used to hold human waste for disposal by one operating cycle. This part of ISO 15883 is to be applied in conjunction with ISO 15883 1.

ZWS ISO 15883: Part 4:2018
Washer disinfectors
Part 4: Requirements and tests for washer-disinfectors employing chemical disinfection for thermolabile endoscopes
Price Code: Gr. 8
81 pages
Identical to ISO 15883-3:2006

This document specifies the particular requirements, including performance criteria for washer-disinfectors (WD) that are intended to be used for cleaning and chemical disinfection of thermolabile endoscopes. This document also specifies the performance requirements for the cleaning and disinfection of the washer-disinfector and its components and accessories which can be required to achieve the necessary performance criteria.

ZWS ISO 15883: Part 5:2021
Washer disinfectors
Part 5: Performance requirements and test method criteria for demonstrating cleaning efficacy
Price Code: Gr. 8
62 pages
Identical to ISO 15883-5:2021

This document specifies procedures and test methods used to demonstrate the cleaning efficacy of washer-disinfectors (WD) and their accessories intended to be used for cleaning of reusable medical devices.
NOTE 1: The requirements can be used for washer-disinfectors intended for use with other articles used in the context of medical, dental, laboratory, pharmaceutical and veterinary practice.
NOTE 2: This document does not apply to the activities to be performed by the manufacturers of reusable medical devices.

ZWS ISO 16037:2003
Rubber condoms for clinical trials – Measurement of physical properties.
Price Code: Gr. 3
5 pages
Identical to ISO 16037:2002

Suggests a series of laboratory tests to be conducted on the products to be used in any clinical investigations so that it will be easier to relate the clinical results to the design and quality of the condoms used.
ZWS ISO 16059:2007
Dentistry - Required elements for codification used in data exchange
Price Code: Gr .7
12 pages
Identical to ISO 16059:2007

This International Standard defines the elements of syntax, including the structure and associated content, for the purpose of coded data exchange and the need for harmonizing existing and future dentistry codification documents.

ZWS ISO 16128: Part 2:2017
Guidelines on technical definitions and criteria for natural and organic cosmetic ingredients and products
Part 2: Criteria for ingredients and products
Price Code: Gr .5
13 pages
Identical to ISO 16128-2:2017

This document describes approaches to calculate natural, natural origin, organic and organic origin indexes that apply to the ingredient categories defined in ISO 16128 1. This document also offers a framework to determine the natural, natural origin, organic and

organic origin content of products based on the ingredient characterization. Neither ISO 16128 1 nor this document addresses product communication (e.g. claims and labelling), human safety, environmental safety, socio-economic considerations (e.g. fair trade), characteristics of packaging materials or regulatory requirements applicable for cosmetics. This document builds on and enhances ISO 16128 1. It is intended to be used in conjunction with ISO 16128 1.

ZWS ISO 16202: Part 1:2019
Dentistry — Nomenclature of oral anomalies
Part 1: Code for the representation of oral anomalies
Price Code: Gr .3
3 pages
Identical to ISO 16059:2007

This document provides a nomenclature of oral anomalies and a code for their representation to facilitate data entry and support interoperability at the semantic level. This nomenclature covers the various anomalies that can be found in the oral cavity. When needed, information on the localization of the anomaly can be added through the use of other codes such as ISO 3950.

ZWS ISO 16256:2012
Clinical laboratory testing and in vitro diagnostic test systems – Reference method for testing the in-vitro activity of antimicrobial agents against yeast fungi involved in infectious diseases
Price Code: Gr. 6
18 pages
Identical to ISO 16256:2012

Desribes a method for testing the susceptibility to antifungal agents of yeasts , including *Candida spp.and Crytococcus neoformans,*that cause infections.The reference method described here has not been used in studiesof the yeast forms of dimorphic fungi, such as B.*dermatitidis* and/or H.*capsulatum* variety *capsulatum.*

ZWS ISO 16297:2013
Milk – bacterial count – Protocol for the evaluation of alternative methods
Price Code: Gr. 6
13 pages
Identical to ISO 16297:2013

Gives guidelines for the evaluation of instrumental alternative methods for total bacterial count in raw milk form animals of different species.

ZWS ISO ISO 16358-1:2013/Amd 1:2019
Air-cooled air conditioners and air-to-air heat pumps -- Testing and calculating methods for seasonal performance factors: Part 1: Cooling seasonal performance factor
Price Code: Gr. 7
27 pages
Identical to ISO 16358-1:2013/AMD 1:2019:2019

This part of ISO 16358 specifies the testing and calculating methods for seasonal performance factor of equipment covered by ISO 5151, ISO 13253 and ISO 15042. This part of ISO 16358 also specifies the seasonal performance test conditions and the corresponding test procedures for determining the seasonal performance factor of equipment, as specified in 1.1, under mandatory test conditions and is intended for use only in marking, comparison, and certification purposes. For the purposes of this part of ISO 16358, the rating conditions are those specified under T1 in the reference standards in 1.1. The procedures in this part of ISO 16358 may be used for other temperature conditions. This part of ISO 16358 does not apply to the testing and rating of:
a)water-source heat pumps or water-cooled air conditioners;
b)portable units having a condenser exhaust duct;
c)individual assemblies not constituting a complete refrigeration system; or
d)equipment using the absorption refrigeration cycle.

ZWS ISO 16358: Part 2:2013
Air-cooled air conditioners and air-to-air heat pumps -Testing and calculating methods for seasonal performance factors
Part 2: Heating seasonal performance factor
Price Code: Gr. 7
41 pages
Identical to ISO 16358-2:2013

This part of ISO 16358 specifies the testing and calculating methods for seasonal performance factor of equipment covered by ISO 5151, ISO 13253 and ISO 15042. For the purposes of this part of ISO 16358, it is assumed that any make-up heating will be provided by electric heaters running concurrently with the heat pump. This part of ISO 16358 also specifies the seasonal performance test conditions and the corresponding test procedures for determining the seasonal performance factor of equipment, as specified in 1.1, under mandatory test conditions and is intended for use only in marking, comparison, and certification purposes. This part of ISO 16358 does not apply to the testing and rating of:
a)water-source heat pumps or water-cooled air conditioners;
b)portable units having a condenser exhaust duct;
c)individual assemblies not constituting a complete refrigeration system; or
d)equipment using the absorption refrigeration cycle.

ZWS ISO 16358:Part 3:2013
Air-cooled air conditioners and air-to-air heat pumps -- Testing and calculating methods for seasonal performance factors: Part 3: Annual performance factor
Price Code: Gr. 5
5 pages
Identical to ISO 16358-1:2013/AMD 1:2019:2019

This part of ISO 16358 specifies the testing and calculating methods for seasonal performance factor of equipment covered by ISO 5151, ISO 13253 and ISO 15042. This part of ISO 16358 also specifies the seasonal performance test conditions and the corresponding test procedures for determining the seasonal performance factor of equipment, as specified in 1.1, under mandatory test conditions and is intended for use only in marking, comparison, and certification purposes. For the purposes of this part of ISO 16358, the rating conditions are those specified under T1 in the reference standards in 1.1. The procedures in this part of ISO 16358 may be used for other temperature conditions. This part of ISO 16358 does not apply to the testing and rating of:
a)water-source heat pumps or water-cooled air conditioners;
b)portable units having a condenser exhaust duct;
c)individual assemblies not constituting a complete refrigeration system; or
d)equipment using the absorption refrigeration cycle.

ZWS ISO 16371-2:2017
Non-Destructive Testing –Industrial computed radiography with storage phosphor imaging plates
Part 2:General Principles for testing of Metallic materails using X-rays and Gamma Rays
Price Code: Gr 7
32 pages
Identical to ISO 16371-2:2017

This document specifies fundamental techniques of computerized radiography with the aim of enabling satisfactory and repeatable results to be obtained economically. The techniques are based on the fundamental theory of the subject and tests measurements. This document specifies the general rules for industrial computerized

X-rays and gamma radiography for flaw detection purposes, using storage phosphor imaging plates.

ZWS ISO 16415:2012
Non-structural timber grading requirements
Price Code: Gr. 7
5 pages
Identical to ISO 16415:2012

This International Standard delineates and illustrates broad grade categories that specify essential features typically found in those categories based on commonalities of numerous national standards and grading rules used for non-structural timber of non-coniferous and coniferous species in international commerce. It provides a basis for recognition of a national standard or grading rules that comply with this International Standard and is applicable to all methods of visual grading systems for non-structural timber of all non-coniferous and coniferous species of timber.
Non-structural timber produced from bamboo is not covered in this International Standard.

ZWS ISO 16443:2014
Dentistry - Vocabulary for dental implants systems and related procedure
Price Code: Gr 6
12 pages
Identical to ISO 16443:2014

This International Standard specifies terms and definitions for dental implants and for instruments, accessories, and the most commonly used clinical terms related to implant systems and procedures in dentistry. Grafting materials and membranes are excluded from this International Standard. The following devices are also excluded from the scope of this International Standard. Device specially designed to be placed within, through or upon the bones of the cranio-facial complex, the primary purpose of which is to provide anchorage for an epithesis (to replace for example: ears, noses and parts of eyes and orbital regions):
—epithesis implant;
—craniofacial implant;
—maxillofacial implant.
Device specially designed to be placed within, through or upon the bones of the cranio-facial complex, the primary purpose of which is to provide anchorage for an orthodontic appliance:
—orthodontic implant.

ZWS ISO 16498:2013
Dentistry - Minimal dental implant data set for clinical use
Price Code: Gr 8
5 pages
Identical to ISO 16498:2013

This International Standard specifies the minimal data set to be recorded for a patient receiving dental implant treatment. This will comprise the locations and types of dental implant bodies, connecting components and adjunctive devices, including grafting materials, placed in a patient's jaw(s). This information will be recorded by the responsible clinician in the patient's file and should be made available to the patient by the clinician(s) who provided the care.

ZWS ISO 16526:2011
Non-destructive testing – Measurement and evaluation of the X-ray tube voltage.
Part 1: Voltage divider method
Price Code: Gr. 3
2 pages
Identical to ISO 16526.1:2011

Specifies a method for the direct and absolute measurement of the average high voltage of constant potential (DC) X-ray system on the secondary side of the high voltage generator.The intention is to check the correspondence with the indicated high voltage value on the control unit of the X-ray system.

Part 2:2011 Constancy check by the thick filter method
PriceCode: Gr. 3
5 pages
Identical to ISO 16526.2:2011

Specifies a constancy check of a X-ray system where mainly the X-ray voltage is checked and also the tube current and the constitution of the target which can be changing due to ageing of the tube.

ZWS ISO 16598:2015
Timber structures - Structural classification for sawn timber
Price Code: Gr. 6
20 pages
Identical to ISO 16598:2015

This International Standard provides a basic international framework for establishing structural classes for sawn timber.

ZWS ISO 16649: Part 1:2018
Microbiology of the food chain - Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli
Part 1: Colony-count technique at 44 °C using membranes and 5-bromo-4-chloro-3- indolyl beta-D-glucuronide
Price Code: Gr. 6
11 pages
Identical to ISO 16649-1:2018

This document specifies a horizontal method for the enumeration of β-glucuronidase-positive Escherichia coli by colony-count technique after resuscitation using membranes and incubation at 44 °C on a solid medium containing a chromogenic ingredient for detection of the enzyme:
β-glucuronidase. It is applicable to
—products intended for human consumption,
—products intended for feeding animals,
—environmental samples in the area of food production and food handling, and
—samples from the primary production stage such as animal faeces, dust, and swabs.
WARNING — Some strains of Escherichia coli may grow poorly or not at all in media incubated at 44 °C. This includes strains of E. coli O157:H7 and O157:H-. Additionally, some strains of Escherichia coli, notably those belonging to serotype O157:H7, are mostly β-glucuronidase negative. Consequently, some strains of E. coli, including pathogenic ones, will not be detected by this method. β-glucuronidase activity may also be exhibited at 44 °C by certain other members of the Enterobacteriaceae, notably Shigella and Salmonella.

ZWS ISO 16649: Part 3:2015
Microbiology of the food chain — Enumeration of β-glucuronidase positive Escherichia coli
Part 3: Detection and most probable number technique using 5-bromo-4-chloro-3-indolyl-β-D-glucuronide
Price Code: Gr. 5
10 pages
Identical to ISO 16649: Part 3:2015

This part of ISO 16649 specifies a horizontal method for the detection and enumeration of β-glucuronidase positive Escherichia coli, by means of the liquid-medium culture technique and calculation of the most probable number (MPN) after incubation at (37 ± 1) °C, then at (44 ± 1) °C. This part of ISO 16649 is applicable to the following:

—products intended for human consumption and the feeding of animals;
—environmental samples in the area of food production and food handling.
The method is suitable for the enumeration of cells of E. coli that might have been subjected to stress arising from dehydration, freezing, and exposure to a saline (such as marine) environment or damage by disinfectants such as chlorine-containing products. A limitation of the applicability of this part of ISO 16649 is imposed by the susceptibility of the method to a large degree of variability. The method is intended to be applied and the results interpreted in the light of the information given in Clause 11.
This method has not been fully evaluated for all matrices (e.g. for milk and milk products). ISO 7251 is intended to be used for milk and milk products.

ZWS ISO/TS 16782:2016
Antimicrobial susceptibility testing – Criteria for Acceptable lots of dehydrated Mueller-Hinton agar and broth for antimicrobial susceptibility testing
Price Code: Gr. 6
20 pages
Identical to ISO 16782:2016

Provides a standard description of the physical properties of dehydrated Mueller-Hinton broth (dMHB) and Mueller-Hinton agar (dMHA) and performance criteria by which manufacturers can assess the performance characteristics of their production lots of dMHB and dMHA.

ZWS ISO 16809:2017
Non destructive Testing – Ultrasonic Thickness Measurement
Price Code: Gr 7
35 pages
Identical to ISO 16809:2017

This document specifies the principles for ultrasonic thickness measurement of metallic and non-metallic materials by direct contact, based on measurement of time of flight of ultrasonic only.

ZWS ISO 16840: Part 2:2018
Wheelchairs:
Part 2:2018: Determination of physical and mechanical characteristics of seat cushions intended to manage tissue integrity
Price Code: Gr 7
27 pages
Identical to ISO 16840-2:2018

This document specifies apparatus, test methods and disclosure requirements for wheelchair seat cushions intended to maintain tissue integrity and prevent tissue trauma. Test conditions simulate a symmetric anatomy and posture and do not represent cushion performance for specific individual users. Loads are intended to represent those seen under the pelvis of a 50th percentile wheelchair user and are not intended to assess the weight capacity of the cushion or to characterize the cushion under bariatric loads. It is possible that not all test methods apply to existing and future cushion technologies. It does not include test methods or requirements for determining the fire resistance of cushions. This document can also be applicable to tissue integrity management devices used as other support systems, as well as to cushions used in situations other than a wheelchair.

ZWS ISO 16840 :Part 2:2018/Amd 1:2024
Wheelchair seating
Part 2: Determination of physical and mechanical characteristics of seat cushions intended to manage tissue integrity

ISO 16840-2:2018 specifies apparatus, test methods and disclosure requirements for wheelchair seat cushions intended to maintain tissue integrity and prevent tissue trauma. Test conditions simulate a symmetric anatomy and posture and do not represent cushion performance for specific individual users. Loads are intended to represent those seen under the pelvis of a 50th percentile wheelchair user and are not intended to assess the weight capacity of the cushion or to characterize the cushion under bariatric loads. It is possible that not all test methods apply to existing and future cushion technologies. It does not include test methods or requirements for determining the fire resistance of cushions.
ISO 16840-2:2018 can also be applicable to tissue integrity management devices used as other support systems, as well as to cushions used in situations other than a wheelchair.

ZWS ISO 16840: Part 3:2022
Wheelchair seating:
Part 3: Determination of static, impact, and repetitive load strengths for postural support devices
Price Code: Gr 8
39 pages
Identical to ISO 16840-3:2022

This document specifies requirements for static, impact, and repetitive load strengths for postural support devices (PSDs) with associated attachment hardware intended for use with an undefined wheelchair seating system. It specifies the test methods for determining whether the minimum performance requirements have been met to release a product into use. It also specifies requirements for disclosure of the test results. Not all tests apply to all PSDs.

ZWS ISO 16840: Part 6:2015
Wheelchairs seating:
Part 6: Simulated use and determination of the changes in properties of seat cushions, and repetitive load strengths for postural support devices
Price Code: Gr 7
29 pages
Identical to ISO 16840-6:2015

This part of ISO 16840 specifies apparatus, test methods, and disclosure requirements for generating aging effects in a seat cushion that reproduce those seen in use. It also provides methods of determining changes in the physical and mechanical properties of seat cushions based on their age and use. This part of ISO 16840 provides a set of tests that simulate wear and tear, which can be useful to validate warranty claims and to provide information about product, life, and performance limitations associated with product use.

ZWS ISO 16923:2016
Natural gas fuelling stations — CNG stations for fuelling vehicles
Price Code: Gr .7
45 pages
Identical to ISO 16923:2016

This document covers the design, construction, operation, inspection and maintenance of stations for fuelling compressed natural gas (CNG) to vehicles, including equipment, safety and control devices. This document also applies to portions of a fuelling station where natural gas is in a gaseous state and dispensing CNG derived from liquefied natural gas (LCNG) according to ISO 16924. This document applies to fuelling stations supplied with natural gas as defined in local applicable gas composition regulations or ISO 13686. It also applies to other gases meeting these requirements including biomethane, upgraded coal-bed methane (CBM) and gas supplies coming from LNG vaporization (on-site or off-site). This document includes all equipment for downstream gas supply connection (i.e. point of separation between the CNG fuelling station piping and the pipeline network). Fuelling station nozzles are not defined in this document. This document covers fuelling stations

with the following characteristics: slow fill; fast fill; private access; public access (self-service or assisted); fuelling stations with fixed storage; fuelling stations with mobile storage (daughter station); multi-fuel stations. This document is not applicable to domestic CNG fuelling devices without buffer storage. This document is based on the condition that the gas entering the fuelling station is odorized. For unodorized gas fuelling stations, additional safety requirements are included in Clause 10.

ZWS ISO 16924:2016
LNG stations for fuelling vehicles
Price Code: Gr .8
81 pages
Identical to ISO 16924:2016

This document specifies the design, construction, operation, maintenance and inspection of stations for fuelling liquefied natural gas (LNG) to vehicles, including equipment, safety and control devices. This document also specifies the design, construction, operation, maintenance and inspection of fuelling stations for using LNG as an onsite source for fuelling CNG to vehicles (LCNG fuelling stations), including safety and control devices of the station and specific LCNG fuelling station equipment. This document is applicable to fuelling stations receiving LNG and other liquefied methane-rich gases that comply with local applicable gas composition regulation or with the gas quality requirements of ISO 13686. This document includes all equipment from the LNG storage tank filling connection up to the fuelling nozzle on the vehicle. The LNG storage tank filling connection itself and the vehicle fuelling nozzle are not covered in this document.This document includes fuelling stations having the following characteristics

ZWS ISO/TS 16949:2009
Quality management systems – Particular requirements for the application of ISO 9001:2008 for automotive production and relevant service part organizations.
Price Code: Gr.7
39 pages
Replaces ZWS ISO/TS 16949:2004
Identical to ISO/TS 16949:2009

Specifies requirements for a quality management system where an organization (i) needs to demonstrate its ability to consistently provide products that meet customer and applicable regulatory requirements and (ii) aims to enhance customer satisfaction through effective application of the system, including processes for continual improvement of the system and the assurance of conformity to customer and applicable regulatory requirements.

ZWS ISO/TS 16958:2015
Milk, Milk products, Infant formula and nutrionals – determination of fatty accids composition – capillary gas chromatographic method
Price Code: Gr .7
48 pages
Identical to ISO 16958:2015

Specifies a method for the quantification of individual and/or all fatty acids in the profile of milk, milk products, infant formula and adult nutritional formula, containing milk fat and/or vegetable oils supplemented or not supplemented with oils rich in long chain poluunsaturated fatty acids (LC-PUFA).

ZWS ISO/IEC 16963:2017
Information technology — Digitally recorded media for information interchange and storage — Test method for the estimation of lifetime of optical disks for long-term data storage
Price Code: Gr .8
54 pages
Identical to ISO/IEC 16963:2017
This document specifies an accelerated ageing test method for estimating the lifetime of the retrievability of information stored on recordable or rewritable optical disks. The method is based on the theoretical assumption that the lifetime of data recorded on an optical disk has a lognormal distribution. Detailed testing is specified for the following formats: DVD-R/RW/RAM disks, +R/+RW disks, CD-R/RW disks and BD recordable/rewritable disks. The testing can be applied to additional optical-disk formats with substitution of the appropriate specifications and can also be updated by the committee in the future as required.
This document includes:
—stress conditions:
—Basic and Rigorous stress-conditions for testing and subsequent analysis using both the Eyring and Arrhenius methods;
—ambient storage conditions in which the lifetime of data stored on optical disk is estimated:
—a Controlled storage-condition, Temp = 25 °C and RH = 50 %, representing full-time air conditioning. The Eyring method is used to estimate the lifetime under this storage condition;
—a Harsh storage-condition, Temp = 30 °C and RH = 80 %, representing the most severe conditions in which users handle and store optical disks. The Arrhenius method is used to estimate the lifetime under this storage condition;
—a description of the evaluation system;
—procedures for specimen preparation and data acquisition;
—definitions and methods used in testing specific disk types;
—analysis of test results to determine the lifetime of stored data;
—a format for reporting the estimated lifetime of stored data.
The methodology includes only the effects of temperature and relative humidity. It does not attempt to model degradation due to complex failure mechanism kinetics, nor does it test for exposure to light, corrosive gases, contaminants, handling, or variations in playback subsystems. Disks exposed to these additional sources of stress or higher levels of temperature and relative humidity are expected to experience shorter usable lifetime.

ZWS ISO 17000:2020
Conformity assessment – Vocabulary and general principles.
Price Code: Gr .5
22 pages
Identical to ISO/IEC 17000:2020

Specifies general terms and definitions relating to conformity assessment, including the accreditation of conformity assessment bodies and to the use of conformity assessment to facilitate trade.

ZWS ISO/PAS 17001:2007
Conformity Assessment – Impartiality – Principles and requirements.
Price Code: Gr .3
5 pages
Identical to ISO/PAS 17001:2005

Contains principles and requirements for the element of impartiality as it relates to standards for conformity assessment.

ZWS ISO/PAS 17002:2005
Conformity assessment – Confidentiality – Principles and requirements.
Price Code: Gr .3
3 pages
Identical to ISO/PAS 17002:2004
Contains principles and requirements for the element of confidentiality as it relates to conformity assessment.

ZWS ISO/PAS 17003:2005
Conformity assessment – Complaints and appeals – Principles and requirements.
Price Code: Gr 5
5 pages
Identical to ISO/PAS 17003:2004

Contains principles and requirements for the elements of complaints and appeals as they relate to conformity assessment.

ZWS ISO /PAS 17004:2007
Conformity assessment – Disclosure of information – Principles and requirements.
Price Code: Gr .3
4 pages
Identical to ISO/PAS 17004:2005

Contains principles and requirements for the element of disclosure of information as it relates to standards for conformity assessment.

ZWS ISO/IEC 17011:2017
Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies.
Price Code: Gr 7
21 pages
Identical to ISO/IEC 17011:2017

Specifies general requirements for accreditation bodies assessing and accrediting conformity assessment bodies (CABs).

ZWS ISO/IEC 17020:2026
Conformity assessment — Requirements for bodies performing inspection
Price Code: Gr .8
23 pages
Identical to ISO/IEC 17020:2026
Replaces ZWS ISO/IEC 17020:2012

This document contains requirements for the competence and impartiality of bodies performing inspection, and for the consistent operation of their inspection activities.

ZWS ISO/IEC TS 17021.1:2015
Conformity assessment – Requirements for bodies providing audit and certification of management systems.
Part 1:2015 Requirements
Price Code: Gr. 7
54 pages
Replaces ZWS ISO/IEC 17021:2007
Identical to ISO/IEC 17021.1:2015

Contains principles and requirements for the competence, consistency and impartiality of bodies providing audit and certification of all management systems. Certification bodies operating to this International Standard need not offer all types of management system certification.

Part 2:2016 Competence requirements for audit and certification of management systems
Price Code: Gr.6
12 pages
Identical to ISO/IEC 17021.2:2016

Specifies additional competence requirements for personnel involved in the audit and certification process for Environmental Management Systems (EMS) and complements the existing requirements of ISO/IEC 17021-1

Part 3:2017 Competence requirements for auditing and certification of quality management systems
Price Code: Gr. 4
6 pages
Identical to ISO/IEC TS 17021.3:2017

Complements the existing requirements of ISO/IEC 17021.It includes specific competence requirements for personnel involved in the certification process for quality management systems (QMS).

Part 5:2014 Competence requirements for audit and certification of asset management systems
PriceCode:Gr.4
6 pages
Identical to ISO/IEC TS 17021.5:2014

Complements the existing requirements of ISO/IEC 17021.It specifies additional competence requirements for personnel involved in the certification process for asset management systems (QMS).

Part 9:2016 Competence requirements for auditing and certification of anti-bribery management systems
Price Code: Gr.7
5 pages
Identical to ISO 17021.9:2016

Complements the existing requirements of ISO/IEC 17021.1 It includes specific competence requirements for personnel involved in the certification process for anti-bribery management systems (ABMS).

Part 10:2018 Competence requirements for auditing and certification of occupational health and safety management systems
Price Code: Gr.5
11 pages
Identical to ISO 17021.10:2018

This document specifies additional competence requirements for personnel involved in the audit and certification process for an occupational health and safety (OH&S) management system and complements the existing requirements of ISO/IEC 17021-1.
Three types of personnel and certification functions are defined:
— auditors; — personnel reviewing audit reports and making certification decisions; — other personnel.
NOTE This document is applicable for auditing and certification of an OH&S management system based on ISO 45001. It can also be used for other OH&S applications.

ZWS ISO/IEC TS 17021: Part 13:2021
Conformity assessment – Requirements for bodies providing audit and certification of management systems:
Part 13: Competence requirements for auditing and certification of compliance management systems
Price Code: Gr.8
5 pages
Identical to ISO 17021-13:2021

This document specifies the competence requirements for personnel involved in the audit and certification process for compliance management systems (CMS). It complements the existing requirements of ISO/IEC 17021 1.

ZWS ISO/IEC TS 17022:2012
Conformity assessment – Requirements and recommendations for content of a third-party audit report on management systems
Price Code:Gr. 3
5 pages
Identical to ISO/IEC TS 17022:2012

Specification contains requirements and recommendations to be addressed in a third-party management system certification audit report based on the relevant requirements in ISO/IEC 17021.

ZWS ISO/IEC TS 17023:2013
Conformity assessment – Guidelines for determining the duration of management system certification audits
Price Code: Gr. 5
8 pages
Identical to ISO/IEC TS 17023:2013

Provides guidelines for determining the duration of management system certification audits to the bodies providing audit and certification of management systems and to those that develop and maintain certification schemes.

ZWS ISO/IEC 17024:2026
Conformity assessment — General requirements for bodies operating certification of persons
Price Code: Gr. 10
24 pages
Identical to ISO/IEC 17024:2026
Replaces ISO/IEC 17024:2012

This document specifies principles and requirements for a body operating certification of persons and includes the development and maintenance of a scheme for certification of persons.
NOTE 1: For the purposes of this document, the term "certification body" is used in place of the full term " body operating certification of persons", and the term "certification scheme" is used in place of the full term “scheme for certification of persons”.
NOTE 2: Annex A contains principles for certification of persons.

ZWS ISO/IEC 17025:2017
The general requirements of the competence of testing and calibration laboratories
Price Code: Gr.10
28 pages
Technically identical to ISO/IEC 17025:2005
Replaces ZWS ISO/IEC 17025:2001

Specifies the general requirements for the competence to carry out tests and/or calibrations, including sampling. It covers testing and calibration performed using standard methods, non standard methods and laboratory-developed methods.

ZWS ISO/IEC TR 17026:2015
Conformity assessment – Example of a certification scheme for tangible products
Price Code: Gr. 7
23 pages
Identical to ISO/IEC 1703426:2015

It provides an example of a type 5 product certification scheme for tangible products as described in ISO/IEC 17067

ZWS ISO/IEC TS 17027:2014
Conformity assessment – Vocabulary related to competence of persons used for certification of persons
Price Code: Gr. 5
16 pages
Identical to ISO/IEC TS 17027:2014

Specifies terms and definitions related to the competence of persons used in the field of certification of persons in order to establish a common vocabulary. These terms and definitions can also be used as applicable in other documents specifying competence of persons suach as regulations, standards, certificationschemes, research, training, licensing and registration.

ZWS ISO/IEC TR 17028:2017
Conformity assessment – Guidelines And Examples Of A Certification Scheme For Services
Price Code: Gr. 7
43 pages
Identical to ISO/IEC 17028:2019

This contains general principles and requirements for the competence, consistent operation and impartiality of bodies performing validation/verification as conformity assessment activities.

ZWS ISO IEC 17029:2019
Conformity assessment — General principles and requirements for validation and verification bodies
Price Code: Gr. 10
30 pages
Identical to ISO/IEC 17029:2019

This document contains general principles and requirements for the competence, consistent operation and impartiality of bodies performing validation/verification as conformity assessment activities. Bodies operating according to this document can provide validation/verification as a first-party, second-party or third-party activity. Bodies can be validation bodies only, verification bodies only, or provide both activities. This document is applicable to validation/verification bodies in any sector, providing confirmation that claims are either plausible with regards to the intended future use (validation) or truthfully stated (verification). However, results of other conformity assessment activities (e.g. testing, inspection and certification) are not considered to be subject to validation/verification according to this document. Neither are situations where validation/verification activities are performed as steps within another conformity assessment process. This document is applicable to any sector, in conjunction with sector specific programmes that contain requirements for validation/verification processes and procedures. This document can be used as a basis for accreditation by accreditation bodies, peer assessment within peer assessment groups, or other forms of recognition of validation/verification bodies by international or regional organizations, governments, regulatory authorities, programme owners, industry bodies, companies, clients or consumers.
NOTE: This document contains generic requirements and is neutral with regard to the validation/verification programme in operation. Requirements of the applicable programmes are additional to the requirements of this document.

ZWS ISO/IEC 17030:2005
Conformity assessment – General requirements for third party marks of conformity.
Price Code: Gr .3
5 pages
Identical to ISO/IEC 17030:2003

Provides general requirements for third-party marks of conformity, including their issue and use.

ZWS ISO 17033:2019
Ethical claims and supporting information – principles and requirements
Price Code: Gr. 6
16 pages
Identical to ISO 17033:2019

This document contains principles and requirements for developing and declaring ethical claims and for providing supporting information, where specific standards have not been developed, or to supplement existing standards.This document is intended for use by all types of organizations and is applicable to all types of ethical claims relating to a product, process, service or organization. This document can also be used by those seeking a better understanding of ethical claims and their use. This document can support the development of programmes for aspect-specific and sector-specific ethical claims.

ZWS ISO 17034:2016
General requirements for the competence of reference material producers
Price Code: Gr. 7
26 pages
Identical to ISO 17034:2016

Specifies general requirements for the competence and consistent operation of reference material producers.

ZWS ISO/IEC 17040:2005
Conformity assessment – General requirements for peer assessment of conformity assessment bodies and accreditation bodies.
Price Code: Gr .5
13 pages
Identical to ISO/IEC 17040:2005
Specifies the general requirements for the peer assessment of process to carried out by agreement groups of accreditation bodies or conformity assessment bodies. It addresses the structure and operation of the agreement group only in so far as they relate to the peer assessment process.

ZWS ISO/IEC 17043:2023
Conformity assessment – General requirements for the competency of proficiency testing providers
Price Code: Gr .7
39 pages
Identical to ISO/IEC 17043:2023

This document specifies general requirements for the competence and impartiality of proficiency testing (PT) providers and consistent operation of all proficiency testing schemes. This document can be used as a basis for specific technical requirements for particular fields of application. Users of proficiency testing schemes, regulatory authorities, organizations and schemes using peer-assessment, accreditation bodies and others can use these requirements in confirming or recognizing the competence of proficiency testing providers.

ZWS ISO/IEC 17050:2005
Conformity assessment – Suppliers declaration of conformity.
Part 1: General requirements
Price Code: Gr 4
6 pages
Identical to ISO/IEC 17050-1:2004

Specifies general requirements for a supplier's declaration of conformity in cases where it is desirable, or necessary, that conformity of an object to the specified requirements be attested, irrespective of the sector involved.

Part 2: Supporting documentation.
Price Code: Gr 3
2 pages
Identical to ISO/IEC 17050-2:2004

Specifies general requirements for supporting documentation to substantiate a supplier's declaration of conformity as described in part 1.

ZWS ISO/IEC 17065:2012
Conformity assessment – Requirements for bodies certifying products, processes and services
Price Code:Gr. 6
27 pages
Identical to ISO/IEC 17065:2012

Contains requirements for the competence ,consistent operation and impartiality of product, processes and service certification bodies. Certification bodies operating to this international standard need not offer all types of products, processes and services certification. Certification of products, processes and services is a third-party conformity assessment activity.

ZWS ISO/IEC 17067:2013
Conformity Assessment – Fundamentals of Product Certification and Guidelines for Product Certification Schemes
Price Code: Gr. 4
19 pages
Identical to ISO/IEC 17067: 2013

Describes the fundamentals of product certification and provides guidelines for understanding, developing, operating or maintaining certification schemes for products, processes and services..

ZWS ISO/TS 17193:2012
Milk – Determination of the lactoperoxidase activity – Photometric method (Reference Method)
Price Code:Gr. 5
7 pages
Identical to ISO/TS 17193:2012

Specifies a photometric method for the determination of the lactoperoxidase activity in milk in amounts exceeding 50U/I.

ZWS ISO 17359:2018
Condition monitoring and diagnostics of machines - General guidelines
Price Code:Gr. 5
36 pages
Identical to ISO/TS 17359:2018

This document gives guidelines for the general procedures to be considered when setting up a condition monitoring programme for machines and includes references to associated standards required in this process. This document is applicable to all machines.

ZWS ISO 17375:2006
Animal feeding stuffs – Determination of aflatoxin B_1
Price Code:Gr. 5
11 pages
Identical to ISO 17375:2006
Replaces ZWS 548:1996

This International Standard specifies a method for the determination of aflatoxin B1 in animal feeding stuffs using high-performance liquid chromatography with post-column derivatization. It is applicable to animal feeding stuffs with a fat content of up to 50 %. The limit of quantification of this method has been demonstrated to be better than 0,5 µg/kg for aflatoxin B1 for a signal-to-noise ratio of 6.
NOTE: The method is based on that given in Reference [1].

ZWS ISO 17442: Part 1:2020
Financial services - Legal entity identifier (LEI)
Part 1: Assignment
Price Code:Gr. 5
8 pages
Identical to ISO/TS 17442-1:2020

This document specifies the minimum elements of an unambiguous legal entity identifier (LEI) scheme to identify the legal entities relevant to any financial transaction. It is applicable to "legal entities", which include, but are not limited to, unique parties that are legally or financially responsible for the performance of financial transactions or have the legal right in their jurisdiction to enter independently into legal contracts, regardless of whether they are incorporated or constituted in some other way (e.g. trust, partnership, contractual). It includes governmental organizations, supranationals and individuals when acting in a business capacity , but excludes natural persons. It also includes international branches as defined in 3.5. The LEI is designed for automated processing. It can also be conveniently used in other media interchange when appropriate (e.g. paper document exchange).
NOTE: Examples of eligible legal entities include, without limitation:
—all financial intermediaries;
—banks and finance companies;
—international branches;
—all entities that issue equity, debt or other securities for other capital structures;
—all entities listed on an exchange;
—all entities that trade financial instruments or are otherwise parties to financial transactions, including business entities, pension funds and investment vehicles such as collective investment funds (at umbrella and sub-fund level) and other special purpose vehicles that have a legal form;
—all entities under the purview of a financial regulator and their affiliates, subsidiaries and holding companies;
—sole traders (as an example of individuals acting in a business capacity);
—counterparties to financial transactions.

ZWS ISO 17442:2020: Part 2:2020
Financial services - Legal entity identifier (LEI)
Part 2: Application in digital certificates
Price Code:Gr. 5
5 pages
Identical to ISO 17442-2:2020

This document specifies a standardised way of embedding the legal entity identifier (LEI) code, as represented in ISO 17442-1, in digital certificates, represented by the International Telecommunications Union (ITU) Recommendation X.509 and its ISO equivalent standard, ISO/IEC 9594-8. This document specifies the structure of a public key certificate conforming with ISO/IEC 9594-8 in which the LEI is embedded.

ZWS ISO 17678:2011
Milk and milk products – Determination of milk fat purity by gas chromatographic analysis of triglycerides (Reference Method)
Price Code: Gr.6
22 pages
Identical to ISO 17678:2010

Specifies a reference method for the determination of milk fat purity using gas chromatographic analysis of triglycerides.Both vegetable fats and animal fats such as beef tallow and lard can be detected.By using defined triglyceride equations the integrity of milk fat is determined.

ZWS ISO 17694:2016
Footwear – Test methods for uppers and lining – Flex resistance
Price Code: Gr.4
6 pages
Identical to ISO 17694:2016

This International Standard specifies a test method for determining the flex resistance of uppers and linings irrespective of the material in order to assess the suitability for the end use.

ZWS ISO 17699:2003
Footwear – Test methods for uppers and lining – Water vapour permeability and absorption
Price Code: Gr.5
9 pages
Identical to ISO 17699:2003

This standard specifies two test methods for assessing, respectively, the water vapour permeability and the water vapour absorption of uppers or complete upper assembly irrespective of the material, in order to assess the suitability for the end use.

ZWS ISO 17700:2019
Footwear - Test methods for upper components and insocks - Colour fastness to rubbing and bleeding
Price Code: Gr.6
16 pages
Identical to ISO 17700:2019

This document specifies three test methods (method A, method B and method C) for assessing the degree of transfer of a material's surface colour during dry or wet rubbing and a method (method D) for determining the likelihood of colour bleeding. The methods are applicable to all footwear uppers, linings and insocks, irrespective of the material. Method D is also applicable to sewing threads and shoelaces.
The methods are:
—method A: to-and-fro square rubbing finger fastness testing machine;
—method B: rotative rub fastness testing machine;
—method C: to-and-fro circular rubbing finger fastness testing machine;
—method D: colour fastness to bleeding.

ZWS ISO 17707:2005
Footwear -Test methods for outsoles - Flex resistance
Price Code: Gr.5
8 pages
Identical to ISO 17707:2005

This European Standard specifies a method for determining the flex resistance of outsoles. This method is intended to assess the effect of sole materials and surface patterns on cut growth. This method is applied to outsoles that, in accordance with the test mentioned in Clause 6, have a maximum longitudinal rigidity of 30 N.

NOTE: The method described in this standard is based on the method for the determination of the flex resistance for outsoles described in EN ISO 20344.

ZWS ISO 17758:2014
Instant dried milk – Determination of the dispersibility and wettability
Price Code: Gr.6
10 pages
Identical to ISO 17758:2014

Specifies method for the determination of the dispersibility in water of instant dried milk. The method is applicable to instant dried skimmed milk manufactured by either the "strait-through" or the "re-wet" process and also to instant dried whole milk.

ZWS ISO 17792:2006
Milk, milk products and mesophilic starter cultures- Enumeration of citrate-Fermenting lactic acid bacteria – Colony count technique at 25^0C
Price Code: Gr.6
13 pages
Identical to ISO 17792:2006

Specifies methods for the enumeration of citrate-fermenting lactic acid bacteria using a colony-count technique at 25^0C.

ZWS ISO 17822:2020
In vitro diagnostic test systems — Nucleic acid amplification-based examination procedures for detection and identification of microbial pathogens — Laboratory quality practice guide
Price Code: Gr 7
41 pages
Identical to ISO/TS 17822:2020

This document describes the particular clinical laboratory practice requirements to ensure the quality of detection, identification and quantification of microbial pathogens using nucleic acid amplification tests (NAAT). It is intended for use by laboratories that develop, and/or implement and use, or perform NAAT for medical, research or health-related purposes. This document does not apply to the development of in vitro diagnostic (IVD) medical devices by manufacturers. However, it does include verification and validation of such devices and/or the corresponding processes when implemented and used by the laboratories.

ZWS ISO 17825:2024
Information technology — Security techniques — Testing methods for the mitigation of non-invasive attack classes against cryptographic modules
Price Code: Gr 7
38 pages
Identical to ISO 17825:2024

This document specifies the non-invasive attack mitigation test metrics for determining conformance to the requirements specified in ISO/IEC 19790:2012 for security levels 3 and 4. The test metrics are associated with the security functions addressed in ISO/IEC 19790:2012. Testing is conducted at the defined boundary of the cryptographic module and the inputs/outputs available at its defined boundary. This document is intended to be used in conjunction with ISO/IEC 24759:2017 to demonstrate conformance to ISO/IEC 19790:2012.
NOTE ISO/IEC 24759:2017 specifies the test methods used by testing laboratories to assess whether the cryptographic module conforms to the requirements specified in ISO/IEC 19790:2012 and the test metrics specified in this document for each of the associated security functions addressed in ISO/IEC 19790:2012. The test approach employed in this document is an efficient "push-button" approach, i.e. the tests are techni-cally sound, repeatable and have moderate costs.

ZWS ISO/TS 17837:2009
Processed cheese products - Determination of nitrogen content and crude protein calculation – Kjeldahl method
Price Code: Gr.5
13 pages
Identical to ISO/TS 17837:2008

Specifies a method for the determination of the nitrogen content and crude protein content by calculation in processed cheese products by using the Kjeldahl principle both traditional and block digestion methods.

ZWS ISO/IEC 17839: Part 1:2025
Information technology - Biometric system-on-card
Part 1: Core requirements
Price Code: Gr.5
7 pages
Identical to ISO/IEC 17839-1:2025

This document establishes:
—functional architecture of a Biometric System-on-Card (BSoC);
—definition of Type ID-1 BSoC (ISO/IEC 7810 conformant) and Type ID-T BSoC (see ISO/IEC 18328-2:2021, Annex A) implementation of a BSoC;
—sensor types in a BSoC;
—requirements to a BSoC with respect to:
—discriminative power (i.e. biometric accuracy criteria);
—interfaces;
—power supply options.
—The following aspects are out of scope of this document (see ISO/IEC 24787-1):
—off-card biometric comparison, storage-on-card;
—on-card biometric comparison (sensor-off-card);
—work-sharing implementations;
—detailed specification and configuration of individual components.
This document provides a functional architectural description of a BSoC and describes how the interfaces are mapped using existing commands and data structures from other International Standards.

ZWS ISO/IEC 17917:2024
Smart cities – guidance to establishing a decision-making framework for sharing data and information services
Price Code: Gr.6
47 pages
Identical to ISO/IEC 17917:2024

This standard gives guidance on establishing a decision-making framework for sharing data and information services in smart cities. It covers:
a)types of data in smart cities;
b)establishing a data sharing culture;
c)data value chain – roles and responsibilities;
d)purposes for data use;
e)assessing data states;
f)defining access rights for data; and
g)data formats/format of transportation.
This standard aims to support the sharing of data and information services within cities. For some cities there will also be a need to establish specific data sharing agreements, particularly where data is being shared by multiple organizations at once. This standard supports a transparent approach to making decisions and creating specific data sharing agreements in order to fully realise the benefits and value of data and information services in a city. Missing data or misinterpretation of data can lead to the wrong actions being taken by city decision-makers. A decision-making framework for sharing data can help ensure that they have the best overall data on which to base decisions.
This standard does not cover:
a)national security issues;

b)good practice for use of data by the citizen;
c)existing interoperability agreements between cities;
d)defining application programming interfaces (API) networks; or
e)any data sharing rules and regulations specific to a particular jurisdiction. It is assumed that a security-minded approach to data sharing is used by cities.
NOTE 1: Further details on the areas not covered in this standard, including information on relevant standards publications, are given in Annex A.
This standard is for use by decision-makers in smart cities from the public, private and third sectors. It is also of interest to any city organization wishing to share data.

ZWS ISO 17959:2014
General Requirements for Solid Wood Flooring
Price Code: Gr.6
13 pages
Identical to ISO 17959:2014

This International Standard specifies the requirements and test methods of characteristics of solid wood flooring boards for internal (interior) use as flooring. It also specifies packaging and marking requirements. It is applicable to both finished and unfinished solid wood flooring board. Solid wood parquet is not covered.

ZWS ISO 17997
Milk – Determination of casein – nitrogen content
Part 1: 2014 Indirect method (Reference method)
Price Code: Gr.5
8 pages
Identical to ISO 17997.1:2014

Specifies a reference method for the indirect determination of the casein-nitrogen content of bovine milk it canbe modified for milk from other species or liquid dairy products.

Part 2:2004 Direct method
Price Code: Gr.5
7 pages
Identical to ISO 17997:2004

Specifies a routine method for the direct determination of the casein-nitrogen content of bovine milk.

ZWS ISO/IEC 18045:2022
Information security, cybersecurity and privacy protection - Evaluation criteria for IT security - Methodology for IT security evaluation
Price Code: Gr. 14
410 pages
Identical to ISO/IEC 18045:2022

This document defines the minimum actions to be performed by an evaluator in order to conduct an ISO/IEC 15408 series evaluation, using the criteria and evaluation evidence defined in the ISO/IEC 15408 series.

ZWS ISO 18065:2015
Adventure tourism – Information for participation
Price Code: Gr. 6
15 pages
Identical to ISO 18065:2015

Establishes the requirements for tourist services provided directly by NPAA in order to satisfy visitors while giving priority to the NPA conservation objectives, excluding the marine protected areas.

ZWS ISO 18091:2014
Quality management systems – Guidelines for the application of ISO 9001:2008 in local government
Price Code: Gr. 10
70 pages
Identical to ISO 18091:2014

Provides local governments with guidelines for achieving reliable results through the application of ISO 9001:2008 on an integral basis. These guidelines do not however add change or modify the requirements of ISO 9001:2008.

ZWS ISO 18100:2017
Timber structures - Finger-jointed timber - Manufacturing and production requirements
Price Code: Gr. 7
26 pages
Identical to ISO 18100:2017

This document specifies the product and performance requirements for finger-jointed structural timber made from sawn timber elements. The document does not cover products made using impressed (die-formed) joints or finger-jointed laminations for glued laminated timber, which is covered in ISO 12578.

ZWS ISO 18104:2023
Health informatics - Categorial structures for representation of nursing practice in terminological systems
Price Code: Gr. 7
35 pages
Identical to ISO 18104:2023

This document specifies the characteristics of categorial structures, representing nursing practice. The overall aim of this document is to support interoperability in the exchange of meaningful information between information systems in respect of nursing diagnoses, nursing actions and nurse sensitive outcomes. Categorial structures for nursing diagnoses, nursing actions, nurse sensitive outcomes and associated categories support interoperability by providing common frameworks with which to
a) analyse the features of different terminologies, including pre- and post-coordinated expressions, those of other healthcare disciplines, and to establish the nature of the relationship between them,[3][4][5][6][7][8]
b) develop terminologies for representing nursing diagnoses, nursing actions,[9][10][11][12] and nurse sensitive outcomes,
c) develop terminologies that are able to be related to each other,[3][8][13] and
d) establish relationships between terminology models, information models, including archetypes, and ontologies in the nursing domain.[14][15][16][45]
There is early evidence that the categorial structures can be used as a framework for analysing nursing practice,[17] for developing nursing content of electronic record systems,[18][19] document the value of nursing services provided and to make nursing's contribution visible[16][36][47][50].

ZWS ISO 18113: Part 1:2022
In vitro diagnostic medical devices – Information supplied by the manufacturer (Labelling)
Part 1: Terms , definitions and general requirements
Price Code: Gr.8
54 pages
Identical to ISO 18113-1:2022
Replaces ZWS ISO 18113-1:2011

This document defines concepts, establishes general principles, and specifies essential requirements for information supplied by the manufacturer of IVD medical devices. This document does not address language requirements since that is the domain of national

laws and regulations. This document does not apply to: a) IVD medical devices for performance evaluation (e.g. for investigational use only); b) shipping documents; c) material safety data sheets / Safety Data Sheets; d) marketing information (consistent with applicable legal requirements).

Part 2:2022
In vitro diagnostic reagents for professional use
Price Code: Gr. 6
11 pages
Identical to ISO 18113.2:2022
Replaces ZWS ISO 18113-2:2011

This document specifies requirements for information supplied by the manufacturer of in vitro diagnostic (IVD) reagents, calibrators and controls intended for professional use. This document can also be applicable to accessories. This document is applicable to the labels for outer and immediate containers and to the instructions for use. This document does not apply to: a) IVD instruments or equipment; b) IVD reagents for self-testing.

Part 3:2022
In vitro diagnostic instruments for professional use
Price Code: Gr.5
10 pages
Identical to ISO 18113.3:2022
Replaces ZWS ISO 18113-3:2011

This document specifies requirements for information supplied by the manufacturer of in vitro diagnostic (IVD) instruments intended for professional use. This document also applies to apparatus and equipment intended to be used with IVD instruments for professional use. This document can also be applicable to accessories. This document does not apply to:
a) instructions for instrument servicing or repair;
b) IVD reagents, including calibrators and control materials for use in control of the reagent;
c) IVD instruments for self-testing.

Part 4:2022
In vitro diagnositc reagents for self testing
Price Code: Gr.5
10 pages
Identical to ISO 18113.4:2022
Replaces ZWS ISO 18113-4:2011

This document specifies requirements for information supplied by the manufacturer of in vitro diagnostic (IVD) reagents, calibrators, and controls intended for self-testing. This document can also be applicable to accessories. This document is applicable to the labels for outer and immediate containers and to the instructions for use.
This document does not apply to:
a) IVD instruments or equipment;
b) IVD reagents for professional use.

Part 5:2022
In vitro diagnostic instruments for self testing
Price Code: Gr.5
9 pages
Identical to ISO 18113.5:2009
Replaces ZWS ISO 18113-5:2011

This document specifies requirements for information supplied by the manufacturer of in vitro diagnostic (IVD) instruments intended for self-testing. This document is also applicable to apparatus and equipment intended to be used with IVD instruments for self-testing. This document can also be applicable to accessories.
This document does not apply to:
a) instructions for instrument servicing or repair;
b) IVD reagents, including calibrators and control materials for use in control of the reagent;
c) IVD instruments for professional use.

ZWS ISO 18153:2003
In vitro diagnostic medical devices — Measurement of quantities in biological samples — Metrological traceability of values for catalytic concentration of enzymes assigned to calibrators and control materials
Price Code: Gr. 6
11 pages
Identical to ISO 18153:2003

This European Standard specifies how to assure the metrological traceability of values assigned to calibrators and control materials intended to establish or verify trueness of measurement of the catalytic concentration of enzymes. The calibrators and control materials are those provided by the manufacturers as part of, or to be used together with, in vitro diagnostic medical devices.

ZWS ISO 18252:2009
Anhydrous milk fat – Determination of sterol composition by gas liquid chromatography (Routine method)
Price Code: Gr 5
13 pages
Identical to ISO 18252:2006

Specifies a routine gas liquid chromatographic method for the determination of the sterol composition in anhydrous milk fat extracted from dairy products directly on the unsaponifiable matter, without purification and derivatization.

ZWS ISO 18295:Part 1:2017
Customer contact centres
Part 1:2017: Requirements for customer contact centres
Price Code: Gr 6
16 pages
Identical to ISO 18295-1:2017

This document specifies service requirements for customer contact centres (CCC). It specifies a framework for any CCC that aims to assist in providing clients and customers with services that continuously and proactively meet or exceed their needs. This document is applicable to both in-house (captive) and outsourced (third party operator) CCCs of all sizes, across all sectors and all interaction channels, including inbound and outbound. It specifies performance metrics (KPIs) as and where required.

ZWS ISO 18295:Part 2:2017
Customer contact centres
Part 2:2017
Requirements for clients using the services of customer contact centres
Price Code: Gr 6
5 pages
Identical to ISO 18295-2:2017

This document specifies requirements for organizations using the services of customer contact centres (CCC). It aims to ensure that customer expectations are consistently met through the provision and management of appropriate arrangements with CCCs meeting the requirements of ISO 18295 1. This document is applicable to clients using CCCs of all sizes, across all sectors including in-house (captive) centres and outsourced (third party operator) centres, across multiple contact channels, including voice and non-voice media.

ZWS ISO 18326:2018
Non-ducted portable air-cooled air conditioners and air-to-air heat pumps having a single exhaust duct – Testing and rating for performance
Price Code: Gr 7
48 pages
Identical to ISO 18326:2018

This document specifies service requirements for customer contact centres (CCC). It specifies a framework for any CCC that aims to assist in providing clients and customers with services that continuously and proactively meet or exceed their needs. This document is applicable to both in-house (captive) and outsourced (third party operator) CCCs of all sizes, across all sectors and all interaction channels, including inbound and outbound. It specifies performance metrics (KPIs) as and where required.

ZWS ISO 18415:2017
Cosmetics — Microbiology — Detection of specified and non-specified microorganisms
Price Code: Gr 6
20 pages
Identical to ISO 18415:2017

This document gives general guidelines for the detection and identification of specified microorganisms in cosmetic products as well as for the detection and identification of other kinds of aerobic mesophilic non-specified microorganisms in cosmetic products.
Microorganisms considered as specified in this document might differ from country to country according to national practices or regulations. Most of them considered as specified microorganisms include one or more of the following species: Pseudomonas aeruginosa, Escherichia coli, Staphylococcus aureus and Candida albicans. In order to ensure product quality and safety for consumers, it is advisable to perform an appropriate microbiological risk analysis to determine the types of cosmetic products to which this document is applicable. Products considered to present a low microbiological risk (see ISO 29621) include those with low water activity, hydro-alcoholic products, extreme pH values, etc. The method described in this document is based on the detection of microbial growth in a non-selective liquid medium (enrichment broth) suitable to detect microbial contamination, followed by isolation of microorganisms on non-selective agar media. Other methods can be appropriate depending on the level of detection required. In this document specific indications are given for identification of Pseudomonas aeruginosa, Escherichia coli, Staphylococcus aureus and Candida albicans. Other microorganisms that grow under the conditions described in this document may be identified by using suitable tests according to a general scheme (see Annex A). Other standards (e.g. ISO 18416, ISO 21150, ISO 22717, ISO 22718) may be appropriate. Because of the large variety of cosmetic products within this field of application, this method might not be suited in every detail to some products (e.g. certain water-immiscible products). Other methods (e.g. automated) can be substituted for the tests presented here provided that their equivalence has been demonstrated or the method has been otherwise shown to be suitable.

ZWS ISO 18434: Part 1:2008
Condition monitoring and diagnostics of machines — Thermography
Part 1: General procedures
Price Code: Gr 5
24 pages
Identical to ISO 18434-1:2008

This part of ISO 18434 provides an introduction to the application of infrared thermography (IRT) to machinery condition monitoring and diagnostics, where “machinery” includes machine auxiliaries such as valves, fluid and electrically powered machines, and machinery related heat exchanger equipment. In addition, IR applications pertaining to machinery performance assessment are addressed. This part of ISO 18434:
 introduces the terminology of IRT as it pertains to condition monitoring and diagnostics of machines;
 describes the types of IRT procedures and their merits;
 provides guidance on establishing severity assessment criteria for anomalies identified by IRT;
 outlines methods and requirements for carrying out IRT of machines, including safety recommendations;
 provides information on data interpretation, and assessment criteria and reporting requirements;
 provides procedures for determining and compensating for reflected apparent temperature, emissivity and attenuating media.
This part of ISO 18434 also encompasses the testing procedures for determining and compensating for reflected apparent temperature, emissivity and attenuating media when measuring the surface temperature of a target with a quantitative IRT camera.
NOTE: It is intended that future parts will address application-specific analysis guidelines.

ZWS ISO 18434: Part 2:2019
Condition monitoring and diagnostics of machine systems - Thermography
Part 2: Image interpretation and diagnostics
Price Code: Gr 5
25 pages
Identical to ISO 18434-2:2019

This document provides specific guidance on the interpretation of infrared thermograms as part of a programme for condition monitoring and diagnostics of machine systems. In addition, IR applications pertaining to machinery performance are addressed.
This document is intended to:
—provide guidance on establishing severity assessment criteria for anomalies identified by IRT;
—outline methods and requirements for carrying out thermography of machine systems, including safety recommendations;
—provide information on image interpretation, assessment criteria and reporting requirements.

ZWS ISO 18436: Part 1:2021
Condition monitoring and diagnostics of machine systems - Requirements for certification of personnel
Part 1: Sector specific requirements for certification bodies and the certification process
Price Code: Gr 3
7 pages
Identical to ISO 18436-1:2021

This document specifies sector specific requirements for organizations ("certification body") operating conformity assessment systems for personnel who perform machinery system condition monitoring, identify machine faults, and recommend corrective action. Procedures for the certification of condition monitoring and diagnostic personnel are specified.
NOTE: These requirements are in addition to those of ISO/IEC 17000 and ISO/IEC 17024.

ZWS ISO 18436: Part 2:2014
Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel
Part 2: Vibration condition monitoring and diagnostics
Price Code: Gr 7
36 pages
Identical to ISO 18436-2:2014

This part of ISO 18436 specifies requirements for the training, relevant experience, and examination of personnel performing condi-

tion monitoring and diagnostics of machines using vibration analysis (VA). A certificate or declaration of conformity to the requirements of this part of ISO 18436 in accordance with ISO 18436 1, provides recognition and evidence that individuals are able to perform vibration measurements and analysis for machinery condition monitoring and diagnostics using a range of vibration measurement equipment. This part of ISO 18436 specifies a four-category classification programme that is based on the technical areas delineated herein.

ZWS ISO 18436: Part 6:2021
Condition monitoring and diagnostics of machines — Requirements for certification of personnel
Part 6: Acoustic emission
Price Code: Gr 6
12 pages
Identical to ISO 18436-6:2021

This document specifies the requirements for qualification and assessment of personnel who perform machinery condition monitoring and diagnostics using acoustic emission. A certificate or declaration of conformity to this document will provide recognition of the qualifications and competence of individuals to perform acoustic emission measurements and analysis for machinery condition monitoring using acoustic emission equipment. This procedure may not apply to specialized equipment or other specific situations. This document specifies a three-category classification programme that is based on the technical areas delineated herein.

ZWS ISO 18436: Part 7:2014
Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel
Part 7: Thermography
Price Code: Gr 6
17 pages
Identical to ISO 18436-7:2014

This part of ISO 18436 specifies the requirements for qualification and assessment of personnel who perform machinery condition monitoring and diagnostics using infrared thermography. A certificate or declaration of conformity to this part of ISO 18436 will provide recognition of the qualifications and competence of individuals to perform thermal measurements and analysis for machinery condition monitoring using portable thermal imaging equipment. This procedure might not apply to specialized equipment or other specific situations. This part of ISO 18436 specifies a three-category classification programme that is based on the technical areas delineated herein.

ZWS ISO 18436: Part 8:2013
Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel
Part 8:2013: Ultrasound
Price Code: Gr 5
11 pages
Identical to ISO 18436-8:2013

This part of ISO 18436 specifies the requirements for qualification and assessment of personnel who perform machinery condition monitoring and diagnostics using ultrasound. A certificate or declaration of conformity to this part of ISO 18436 provides recognition of the qualifications and competence of individuals to perform ultrasound measurements and analysis for machinery condition monitoring using ultrasound equipment. It is possible that this procedure is not applicable to specialized equipment or other specific situations. This part of ISO 18436 specifies a three-category classification programme that is based on the technical areas delineated herein, consistent with ISO 18436 1 and ISO 18436 3.

ZWS ISO 18601:2013
Packaging and the environment — General requirements for the use of ISO standards in the field of packaging and the environment
Price Code: Gr 6
10 pages
Identical to ISO 18601:2013

This International Standard specifies requirements and procedures for the other International Standards in this series on packaging and the environment: ISO 18602, ISO 18603, ISO 18604, ISO 18605, and ISO 18606. This International Standard is applicable to a supplier responsible for placing packaging or packaged goods on the market.

ZWS ISO 18603:2013
Packaging and environment— reuse
Price Code: Gr 6
13 pages
Identical to ISO 18603:2013

This International Standard specifies the requirements for a packaging to be classified as reusable and sets out procedures for assessment of meeting the requirements, including the associated systems. The procedure for applying this International Standard is contained in ISO 18601.

ZWS ISO 18604:2013
Packaging and environment - material recycling
Price Code: Gr 6
20 pages
Identical to ISO 18604:2013

This International Standard specifies the requirements for packaging to be classified as recoverable in the form of material recycling while accommodating the continuing development of both packaging and recovery technologies and sets out procedures for assessment of meeting the requirements of this International Standard. This International Standard cannot by itself provide presumption of meeting the requirements. The procedure for applying this International Standard is contained in ISO 18601.

ZWS ISO 18605:2013
Packaging and the environment – energy recovery
Price Code: Gr 6
15 pages
Identical to ISO 18605:2013

This International Standard specifies the requirements for packaging to be classified as recoverable in the form of energy recovery and sets out assessment procedures for fulfilling the requirements of this International Standard. This International Standard is a part of a series of International Standards. The procedure for applying it is contained in ISO 18601.

ZWS ISO 18606:2013
Packaging and the environment – organic recovery
Price Code: Gr 6
21 pages
Identical to ISO 18606:2013

This International Standard specifies procedures and requirements for packaging that are suitable for organic recycling. Packaging is considered as recoverable by organic recycling only if all the individual components meet the requirements. Therefore, packaging is not considered recoverable by organic recycling if only some of the components meet the requirements laid down in this International Standard. However, if the components can be easily, physically separated before disposal, then the physically separated components can be individually considered for organic recycling. This

International Standard is applicable to organic recycling of used packaging but does not address regulations that exist regarding the recoverability of any residual packaged goods.

ZWS ISO 18644:2016
Fertilizers and soil conditioners – Controlled release fertilizer – General requirements
Price Code: Gr. 4
6 pages
Identical to ISO 18644:2016

Specifies requirements for testing methods, sampling and preparation of test sample, marking and labelling, as well as package, transport and storage of controlled-release fertilizer.

ZWS ISO 18788:2015
Management system for private security operations - Requirements with guidance for use
Price Code: Gr. 9
119 pages
Identical to ISO 18788(2015).

This International Standard provides a framework for establishing, implementing, operating, monitoring, reviewing, maintaining and improving the management of security operations. It provides the principles and requirements for a security operations management system (SOMS). This International Standard provides a business and risk management framework for organizations conducting or contracting security operations and related activities and functions while demonstrating:
a)conduct of professional security operations to meet the requirements of clients and other stakeholders;
b)accountability to law and respect for human rights;
c)consistency with voluntary commitments to which it subscribes.

ZWS ISO 19001:2013
In vitro diagnostic medical devices – Information supplied by the manufacturer with in vitro diagnostic reagents for staining in biology
Price Code: Gr. 6
15 pages
Identical to ISO 19001:2013

Specifies requirements for information supplied by the manufacturer with reagents used in staining in biology. It applies to producers, suppliers and vendors of dyes, stains,chromogenic reagents and other reagents used for staining inhistology and cytology including bacteriology haematology, histochemistry as performed in medical laboratories both routine nad research bacteriology.

ZWS ISO 19011:2026
Guidelines for auditing management systems
Price Code: Gr.10
52 pages
Identical to ISO 19011:2026
Replaces ZWS ISO 19011:2018

This document gives guidance on auditing management systems, including the principles of auditing, managing an audit programme and conducting management system audits, as well as guidance on the evaluation of competence of individuals involved in the audit process. These individuals include those managing the audit programme, auditors and audit teams. It is applicable to all organizations that need to plan and conduct audits of management systems or manage an audit programme. The application of this document to other types of audits is possible, provided that special consideration is given to the specific competence needed and the objectives to be achieved.

ZWS ISO 19046:2017
Cheese – Determination of propionic acid level by chromatography
Part 1: Method by gas chromatography
Price Code: Gr.5
9 pages
Identical to ISO 19046.1:2017

Specifies a method for the determination of propionic acid level in cheese, using gas chromatography.

Part 2: Method by ion exchange chromatography
Price code: Gr 5
7 pages
Identical to ISO 19046.2:2017

Specifies a method for the determination of propionic acid level in cheese, using ion exchange chromatography

ZWS ISO/IEC 19086: Part 4:2019
Cloud computing – Service level agreement (SLA) framework Part 4: 2019: Components of Security and of Protection of PII
Price Code: Gr.6
19 pages
Identical to ISO/IEC 19086: Part 4:2019

This document specifies security and protection of personally identifiable information components, SLOs and SQOs for cloud service level agreements (cloud SLA) including requirements and guidance. This document is for the benefit and use of both CSPs and CSCs.

ZWS ISO 19244:2014
Guidance on transition periods for standards developed by ISO TC 84- Devices for administration of medicinal products and intravascular
Price Code: Gr.4
3 pages
Identical to ISO 11608:2014

It outlines the recommended transition plans for all the TC 84 standards: needle based injection systems, sharp injury protection, sharp containers,aerosol drug delivery devices, needle-free injection system, syringes, needles intravascular catheters and ports.

ZWS ISO 19344 |IDF 232:2015
Milk and milk products – Starter cultures, probiotics and fermented products – Quantification of lactic acid bacteria by flow cytometry
Price Code: Gr.7
26 pages
Identical to ISO 19344|IDF 232:2015

Specifies a standardrdized method for the quantification of active/or total lactic acid bacteria and probiotic strains in starter cultures used in dairy products by means of flow cytometry. Method also applicable to probiotics used in dairy products and to fermented milk products such as yogurts containing primarily lactic acid bacteria.

ZWS ISO 19429:2015
Dentistry – Designation system for dental implants
Price Code: Gr.3
2 pages
Identical to ISO 19249:2015

This International Standard provides a system for designating the location of an implant body within a jaw, and is intended for use with the scheme described in ISO 3950. It does not in itself indicate whether the device is visible within the oral cavity or the presence

of transmucosal components or implant restorations. Since the system describes location but not restoration form, it is not necessary to use the quadrant designation numbers 5 to 8 which are employed when indicating a primary tooth. This information should be recorded by the responsible clinician in the patient's file and made available to the patient by the clinician(s) who provided the care.

ZWS ISO/IEC 19479:2019
Information technology for learning, education, and training - Learner mobility achievement information (LMAI)
Price Code: Gr.7
29 pages
Identical to ISO/IEC 19479:2019

This document defines a model for the recording and exchange of learner achievement information among student information systems (SIS) (also known as student management information systems), as well as the aggregation of information by third party suppliers. In addition, this document defines refinements to the learner mobility achievement award (LMAI) model for representing the digital diploma supplement (DDS).
NOTE: The proposed model proposed is not intended to define the representation of the entire spectrum of learner mobility information but to define the formally structured representation of official, institutionally attested achievement information for learners engaged in formal learning processes, in order to facilitate its recording and subsequent exchange within any international area within which learner mobility is possible. Achievement information structured and presented in compliance with this document could, of course, be used for other purposes, for instance, to provide descriptions of achievement to enrich a learner-owned report in an e-portfolio. However, guidance on the document and the organisation of information for purposes other than the representation of formal achievement reports is outside the scope of this document..

ZWS ISO 19574:2022
Footwear and footwear components -Qualitative test method to assess antifungal activity (growth test)
Price Code: Gr.5
10 pages
Identical to 19574:2022

This document specifies a test method (growth test) for the qualitative evaluation of the antifungal activity of footwear and footwear components exposed to the action of filamentous micro-fungi. This document is only applicable to footwear and components that claim to have antifungal (antimycotic) or antimicrobial treatment effects.

ZWS ISO/TR 19623:2019
Timber structures – Glued laminated timber – Assignment of glued laminated timber characteristic values from laminate properties
Price Code: Gr.7
40 pages
Identical to ISO/TR 19623:2019

This document reviews the methodologies or analytical models that have been used to develop the strength and stiffness of structural glued laminated timber (glulam) from the characteristic properties of lumber laminations. The review is limited to the methodologies used in Europe, the USA, Australia/New Zealand, and Canada as they represent different fundamental philosophies in these areas. As a result, the methodologies are not intended to be combined unless there is clear understanding of the fundamental assumptions adopted by the respective methodologies.
NOTE: Detailed assumptions used by the respective methodologies are available from the standards listed in the Bibliography.

ZWS ISO/IEC 19650:2019
Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) – Information management using building information modelling
Part 1: 2018: Concepts and principles
PriceCode: Gr.7
34 pages
Identical to ISO/IEC 19650:2019

This document outlines the concepts and principles for information management at a stage of maturity described as "building information modelling (BIM) according to the ISO 19650 series". This document provides recommendations for a framework to manage information including exchanging, recording, versioning and organizing for all actors. This document is applicable to the whole life cycle of any built asset, including strategic planning, initial design, engineering, development, documentation and construction, day-to-day operation, maintenance, refurbishment, repair and end-of-life. This document can be adapted to assets or projects of any scale and complexity, so as not to hamper the flexibility and versatility that characterize the large range of potential procurement strategies and so as to address the cost of implementing this document.

ZWS ISO/TS 19657:2017
Defination and technical criteria for food ingredients to be considered as natural
Price Code: Gr.6
37 pages
Identical to ISO/TS 16957:2017

Specifies definitions and technical criteria (acceptable sources, materials and processes) to be fulfilled for food ingredients to be considered as natural.

ZWS ISO/IEC 19784: Part 1:2018
Information Technology – Biometric Application Programming Interface
Part 1:2018: BioAPI Specification
Price Code: Gr.12
248 pages
Identical to ISO/IEC 19784-1:2018

This document defines the Application Programming Interface (API) and Service Provider Interface (SPI) for standard interfaces within a biometric system that support the provision of that biometric system using components from multiple vendors. It provides interworking between such components through adherence to this and to other International Standards. For use in a system that does not include a BioAPI Framework (called a framework-free BioAPI system), only the SPI interface is applicable, with applications interfacing directly to that in a platform-specific manner.
NOTE 1: Many clauses and/or sub-clauses of this document are not applicable for implementation of a framework-free BioAPI system. These are identified at the head of the clause of sub-clause. The BioAPI specification is applicable to a broad range of biometric technology types. It is also applicable to a wide variety of biometrically enabled applications, from personal devices, through network security applications, to large complex identification systems. This document supports an architecture in which a BioAPI Framework supports multiple simultaneous biometric applications (provided by different vendors), using multiple dynamically installed and loaded (or unloaded) Biometric Service Provider (BSP) components and BioAPI Units (provided by other different vendors), possibly using one of an alternative set of BioAPI Function Provider (BFP) components (provided by other vendors) or by direct management of BioAPI Units.

NOTE 2: Where BioAPI Units are provided by a different vendor fom a BSP, a standardised BioAPI Function Provider Interface (FPI) may be needed. This is outside the scope of this document, but is specified by later parts for the different categories of FPI.
NOTE 3: Where a BioAPI Framework is not used in a system, the ability to support multiple applications and multiple BSPs is platform-dependent and depends on the nature of the system-integration techniques employed. This document is not required (and should normally not be referenced) when a complete biometric system is being procured from a single vendor, particularly if the addition or interchange of biometric hardware, services, or applications is not a feature of that biometric system. (Such systems are sometimes referred to as "embedded systems".) Standardisation of such systems is not in the scope of this document. This document does not define security requirements for biometric applications and biometric service providers.
NOTE 4: ISO 19092 provides guidelines on security aspects of biometric systems[3].
The performance of biometric systems (particularly in relation to searches of a large population to provide the biometric identification capability) is not in the scope of this document. Trade-offs between interoperability and performance are not in the scope of this document. This document specifies a version of the BioAPI specification that is defined to have a version number described as Major 2, Minor 0, or version 2.0. It also specifies a version number described as Major 2, Minor 1, or version 2.1 that provides an enhanced Graphical User Interface. It also specifies a version number described as Major 2, Minor 2, or version 2.2 that provides features supporting fusion and security. Some clauses and sub-clauses apply only to one of these versions, some to two or more. This is identified at the head of the relevant clauses and sub-clauses.
NOTE 5: Earlier versions of the BioAPI specification were not International Standards.
NOTE 6: The differences between the requirements of the 2.0 specification and the 2.1 specification for framework-free operation relate only to the biometric type values and encodings.
Conformance requirements are specified in Clause 5.

ZWS ISO/IEC 19788: Part 1:2024
Information technology for learning, education and training – Metadata for learning resources
Part 1: Framework
Price Code: Gr.8
81 pages
Identical to ISO/IEC 19788-1:2024

This document provides a framework that applies to all resources and specifies how to describe resources. It includes rules governing the way in which descriptions are made. This document provides principles, rules and structures for specifying the description of any type of resource; it identifies and establishes attributes for specifying properties, resources classes, vocabularies and application profiles and the rules governing their use. The key principles set out in this document are framed in a user-centric context and aim to meet the requirements of multilingual and cultural adaptability from a global perspective. This document can be used for the specification of metadata describing any type of resource (not only learning resources). This document is information-technology-neutral and defines a set of common approaches. This document specifies generic properties, generic resource classes and predefined rule sets for content value rules. These generic elements are proposed in such a way that they can be widely reused, thereby promoting interoperability.
This document is applicable to the development of:
—application profiles based on the ISO/IEC 19788 series but not part of it or any other document based on it,
—standards consisting of the description of resources (in a broad sense), whether they belong to the domain of education or to any other domain.

ZWS ISO/IEC 19788: Part 2:2011/Amd 1:2016
Information technology - Learning, education and training - Metadata for learning resources
Part 2: Dublin Core elements
Price Code: Gr.7
19 pages
Identical to ISO/IEC 19788-2:2011/Amd 1:2016

ISO/IEC 19788 specifies, in a rule-based manner, metadata elements and their attributes for the description of learning resources. This includes the rules governing the identification of data elements and the specification of their attributes. These metadata elements are used to form the description of a learning resource, i.e. as a metadata learning resource (MLR) record. This part of ISO/IEC 19788 provides a base-level data element set for the description of learning resources, from the ISO 15836:2009 Dublin Core metadata element set, using the framework provided in ISO/IEC 19788 1. This provides interoperability at the time of expressing existing Dublin Core records within MLR. These elements can later be combined with other descriptive elements, including those from other type 1 parts of ISO/IEC 19788 or other standards, including Dublin Core refinements and IEEE 1484.12.1-2002, in order to address more specific topics such as technical or educational information.

ZWS ISO/IEC 19788: Part 3:2011
Information technology — Learning, education and training — Metadata for learning resources
Part 3: Basic application profile
Price Code: Gr.7
27 pages
Identical to ISO/IEC 19788-3:2011

The primary purpose of ISO/IEC 19788 is to specify metadata elements and their attributes for the description of learning resources. This includes the rules governing the identification of data elements and the specification of their attributes. ISO/IEC 19788 provides data elements for the description of learning resources and resources directly related to learning resources. This part of ISO/IEC 19788 is designed to help implementers with a starting point for adopting ISO/IEC 19788, defining an application profile that specifies, through adding constraints to the use of some data elements, how the ISO/IEC 19788-2 element set can be used.

ZWS ISO/IEC 19788: Part 4:2014
Information technology - Learning, education, and training - Metadata for learning resources
Part 4:2014: Technical elements
Price Code: Gr.6
15 pages
Identical to ISO/IEC 19788-4:2014

This International Standard specifies, in a rule-based manner, metadata elements and their attributes for the description of learning resources. This includes the rules governing the identification of metadata elements and the specification of metadata attributes. These metadata elements are used to form the description of a learning resource, i.e. as a metadata learning resource (MLR) record.
This part of ISO/IEC 19788 specifies, using ISO/IEC 19788-1, technical aspects of learning resources, i.e., requirements for use, location, size, etc.

ZWS ISO/IEC 19788: Part 5:2012
Information technology - Learning, education, and training - Metadata for learning resources
Part 5:2014: Educational elements
Price Code: Gr.7
35 pages
Identical to ISO/IEC 19788-5:2012

ISO/IEC 19788 specifies, in a rule-based manner, metadata elements and their attributes for the description of learning resources. This includes the rules governing the identification of metadata elements and the specification of metadata attributes. These metadata elements are used to form the description of a learning resource, i.e. as a metadata learning resource (MLR) record. This part of ISO/IEC 19788 specifies, using the framework specified in ISO/IEC 19788-1, educational aspects of learning resources across various educational, cultural and linguistic settings.

ZWS ISO/IEC 19790: 2025
Information security, cybersecurity and privacy protection — Security requirements for cryptographic modules
Price Code: Gr.10
84 pages
Identical to ISO/IEC 19790:2025

This document specifies the security requirements for a cryptographic module utilized within a security system protecting sensitive information in Information and Communication Technologies (ICT). It defines four security levels for cryptographic modules to provide for a wide spectrum of data sensitivity and a diversity of application environments. This document specifies up to four security levels for each of the 11 requirement areas with each security level increasing security over the preceding level.

ZWS ISO/IEC 19795: Part 1:2021
Information technology — Biometric performance testing and reporting
Part 1: Principles and framework
Price Code: Gr.8
74 pages
Identical to ISO/IEC 19795-1:2021

This document:
—establishes general principles for testing the performance of biometrics systems in terms of error rates and throughput rates for purposes including measurement of performance, prediction of performance, comparison of performance, and verifying conformance with specified performance requirements;
—specifies performance metrics for biometric systems;
—specifies requirements on the recording of test data and reporting of test results; and
—specifies requirements on test protocols in order to:
—reduce bias due to inappropriate data collection or analytic procedures;
—help achieve the best estimate of field performance for the expended effort;
—improve understanding of the limits of applicability of the test results. This document is applicable to empirical performance testing of biometric systems and algorithms through analysis of the comparison scores and decisions output by the system, without requiring detailed knowledge of the system's algorithms or of the underlying distribution of biometric characteristics in the population of interest. Not within the scope of this document is the measurement of error and throughput rates for people deliberately trying to subvert the intended operation of the biometric system (e.g. by presentation attacks).

ZWS ISO 19867: Part 1:2018
Clean cookstoves and clean cooking solutions -Harmonized laboratory test protocols
Part 1:2018 Standard test sequence for emissions and performance, safety and durability of cookstoves
Price Code: Gr. 9
122 pages
Identical to ISO/TR 19867-1:2018

This document is applicable to cookstoves used primarily for cooking or water heating in domestic, small-scale enterprise, and institutional applications, typically with firepower less than 20 kW and cooking vessel volume less than 150 l, excluding cookstoves used primarily for space heating. For solar cookstoves, the provisions of this document are applicable only for evaluating cooking power, safety, and durability. Solar cookstoves have zero on-site emissions, and their cooking power can be determined according to ASAE S 580.1. This document does not cover electric stoves. Safety evaluation of electric stoves can be found in IEC 60335-2-6[62]. This document specifies laboratory measurement and evaluation methods for
a)particulate and gaseous air pollutant emissions,
b)energy efficiency,
c)safety, and
d)durability of cookstoves.
This document does not include evaluation of off-gassing from manufacturing oils, coatings, adhesives, and other materials (which can be found in ISO 10377 and ISO 14159). This document does not include evaluation of safety for cookstoves designed to burn a liquid and/or gaseous fuel, such as LPG (liquefied petroleum gas), alcohol, plant oil, kerosene, etc. Safety evaluation of gas-fuelled cookstoves can be found in ISO 23550 and ISO 23551 (all parts). This document does not include durability evaluation of rechargeable batteries in fan-assisted cookstoves. This document provides a standard test sequence to establish international comparability in measurement of cookstove emissions and efficiency. Guidelines for reporting results from the laboratory measurement and evaluation methods are described. For cookstoves used in applications covered by additional requirements (e.g., local air quality and safety regulations), additional test conditions and special evaluation methods may apply.

ZWS ISO 19867: Part 3:2018
Clean cookstoves and clean cooking solutions- Harmonized laboratory test protocols
Part 3:2018: Voluntary performance targets for cookstoves
Price Code: Gr. 6
18 pages
Identical to ISO/TR 19867-3:2018

This document provides voluntary performance targets for cookstoves and is intended to supplement ISO 19867-1. These voluntary performance targets are intended for use with the results of the laboratory testing specified in ISO 19867-1. These voluntary performance targets are provided as informative guidance, and are not intended as normative requirements for the testing of cookstoves. Performance targets can be considered as an approach to benchmarking potential performance of cookstoves and clean cooking solutions, and provide guidance to help organizations and countries with international collaboration and trade in household energy technologies, fuels, and related products. This document is therefore not intended to serve as the sole basis for decisions about which technologies/fuels to promote for a given setting, since the performance of a given technology will likely differ under real-use conditions. The best way to assess real-world impacts of a stove intervention or program is through field studies, see ISO 19869 , as well as other existing methods[2][3]. In addition to the limitations arising from differences from real-word performance, laboratory test metrics (efficiency, emissions, safety, and durability) do not inform other factors that are critical

to the impacts a product, program, or intervention may achieve. These factors include, but are not limited to geographic/cultural suitability, price-affordability, acceptability to the target user group, and other socio-economic factors. These voluntary performance targets for emissions are intended to evaluate cookstoves used for small-scale household applications, with maximum firepower of up to 10 kW. Cookstoves that have firepower above 10 kW could emit substantially more overall pollutants into the household environment than those under 10 kW, while still meeting targets based on grams emitted per megajoule of useful energy delivered.

ZWS ISO 19869:2019
Clean cookstoves and clean cooking solutions - Field testing methods for cookstoves
Price Code: Gr. 6
111 pages
Identical to ISO 19869 published in 2019

This document provides field testing methods to evaluate cooking system performance in real-world conditions. This document is intended to:
a) Provide quantitative and qualitative measurements of cooking system performance. Requirements and guidance are provided for evaluation of usage, usability, fuel consumption, energy consumption, power, emissions, safety, and durability. These measurements include uncontrolled and controlled cooking tests.
b) Provide guidance for measurements of household air pollution and personal exposure to PM2,5 and CO.
c) Provide guidance for field assessments that compare cooking system performance metrics either to defined performance levels or to a counterfactual scenario that enables assessment of whether the new cooking system is improved compared to what would have been observed without the implementation of a new cooking system.
d) Provide guidance for prioritizing measurements that balance comprehensiveness and feasibility. The parts of the cooking system include the cookstove, cooking vessel, fuel, user practice, and additional cooking devices (such as pot skirts and retained heat cookers). Several measurements in this document are presented as measurements of “cookstoves” or “cooking devices” for simplicity, but are intended to be interpreted as measurements of cooking systems. Some measurements (usage, kitchen energy consumption, and pollutant exposure) pertain to household-level cooking systems that include all cookstoves, cooking devices, fuels, and user practices in a household. Cooking systems can also include other aspects of the cooking environment (such as ventilation when measuring exposure). This document is applicable to cookstoves used primarily for cooking or water heating in domestic, small-scale enterprise and in institutional applications, typically with firepower less than 20 kW and cooking vessel volume less than 150 l. The provisions of this document are applicable to solar cookers. This document does not cover electric stoves or cookstoves used primarily for space heating. Although some parts of this document can be applicable to electric stoves (usage, usability, safety, durability, cooking power, and household energy consumption), specific considerations required for testing electric stoves are not provided. This document is intended for manufacturers, implementing organizations, researchers, governments, or other entities that need to evaluate cooking system performance in the field.

ZWS ISO/IEC 19896: Part 1: 2025
Information security, cybersecurity and privacy protection — Requirements for the competence of IT security conformance assessment body personnel
Part 1: Overview and concepts
Price Code: Gr. 10
12 pages
Identical to ISO/IEC 19896-1:2025

This document establishes an organized set of concepts and relationships to understand the competency requirements for information security conformance-testing and evaluation specialists, thereby establishing a basis for shared understanding of the concepts and principles central to the ISO/IEC 19896 series across its user communities.

ZWS ISO/IEC 19989: Part 1:2020
Security techniques — Criteria and methodology for security evaluation of biometric systems
Part 1: Framework
Price Code: Gr. 8
63 pages
Identical to ISO/IEC 19989-1:2020

For security evaluation of biometric recognition performance and presentation attack detection for biometric verification systems and biometric identification systemsthis document specifies:
— extended security functional components to SFR Classes in ISO/IEC 15408-2;
— supplementary activities to methodology specified in ISO/IEC 18045 for SAR Classes of ISO/IEC 15408-3. This document introduces the general framework for the security evaluation of biometric systems, including extended security functional components, and supplementary activities to methodology, which is additional evaluation activities and guidance/recommendations for an evaluator to handle those activities. The supplementary evaluation activities are developed in this document while the detailed recommendations are developed in ISO/IEC 19989-2 (for biometric recognition aspects) and in ISO/IEC 19989-3 (for presentation attack detection aspects). This document is applicable only to TOEs for single biometric characteristic type. However, the selection of a characteristic from multiple characteristics in SFRs is allowed.

ZWS ISO 19993:2020
Timber structures - Glued laminated timber - Face and edge joint cleavage test
Price Code: Gr. 5
6 pages
Identical to ISO 19993:2020

This document specifies methods of evaluating the effectiveness of glued laminated timber face and edge bonds within a manufacturing plant by cleaving of the glue line in both dry and wet conditions. It is not intended that it be used for initial type testing where cyclic delamination or block shear is preferred. It is based on the principle that, provided minimum wood failure percentages are met, then the bond strength exceeds the perpendicular to the grain tension strength of the under-lying substrate and therefore the bond is not the weak element limiting the integrity of a glulam assembly.

ZWS ISO 20000: Part 1:2018/Amd 1:2024
Information technology — Service management
Part 1: Service management system requirements
Price Code: Gr. 6
26 pages
Identical to ISO/IEC 20000: 2018/Amd 1:2024

A service management system (SMS) standard.It specifies requirements for the service provider to plan, establish, implement, operate, monitor, review, maintain and improve an SMS. The requirements include the design, transition, delivery and improvement of service to fulfil service requirements.

Part 2:2012 Guidance on the application of service management systems
Price Code: Gr. 8
85 pages
Identical to ISO/IEC 20000.2:2012

Provides guidance on the application of an SMS based on ISO/IEC 20000.1.This part ISO/IEC 20000 provides examples and suggestions to enable organizations to interpret and apply ISO/IEC 20000.1 including references to other parts of ISO/IEC 20000 and other relevant standards. This part of ISO/IEC 20000 is independent of specific best practice frameworks and the service provider can apply a combination of generally accepted guidance and their own techniques.

Part 5:2013 Exemplar implementation plan for ISO/IEC 20000-1
Price Code: Gr. 7
46 pages
Identical to ISO/IEC 20000.5:2013

Provides guidance for an approach to implement an SMS that can fulfil the requirements specified in IS/IEC 20000-1:2011. Illustrates a generic three-phased plan to manage implementation activities taking into consideration the design, transition, delivery, management and improvement of services.

Part 10:2018 Concepts and vocabulary
Price Code: Gr. 7
27 pages
Identical to ISO IEC 20000-10:2018

This document describes the core concepts of ISO/IEC 20000 (all parts), identifying how the different parts support ISO/IEC 20000 1:2018 as well as the relationships between ISO/IEC 20000-1 and other International Standards and Technical Reports. This document also includes the terminology used in all parts of ISO/IEC 20000, so that organizations and individuals can interpret the concepts correctly. This document can be used by:
a)organizations seeking to understand the terms and definitions to support the use of ISO/IEC 20000 (all parts);
b)organizations looking for guidance on how to use the different parts of ISO/IEC 20000 to achieve their goal;
c)organizations that wish to understand how ISO/IEC 20000 (all parts) can be used in combination with other International Standards;
d)practitioners, auditors and other parties who wish to gain an understanding of ISO/IEC 20000 (all parts).

ZWS ISO/IEC 20006: Part 1:2014
Information technology for learning, education and training - Information model for competency
Part 1: 2014: Competency general framework and information model
Price Code: Gr. 7
44 pages
Identical to ISO/IEC 20006-1:2014

This part of ISO/IEC 20006 provides:
—a general framework for dealing with competency information in information technology for learning, education, and training (ITLET) contexts;
—a system architecture for managing and exchanging competency information and its related objects;
—an information model for expressing competency and its related objects that includes an introduction to the composition of competency;
—use cases used to support the development of the general framework and competency information model. This standard is for those who design and use learning systems and human resources systems to support management and exchange of competency information using ITLET systems.

NOTE: This International Standard is related to the Conceptual Reference Model developed in ISO/IEC TR 24763. Information regarding the relationships between the ISO/IEC 20006 and ISO/IEC TR 24763 is provided in this standard. This multi-part International Standard also includes the following parts:
ISO/IEC 20006 2:—, Information technology for learning, education and training – Information model for competency – Part 2: Proficiency level information model, which provides
—information model for expressing semantics of competency proficiency and its levels, and
—use cases used to support the development of the competency proficiency level information model;
ISO/IEC TS 20006 3:—, Information technology for learning, education and training – Information model for competency – Part 3: Guidelines for aggregation of competency information and data, which provides
—guidelines and a data driven architecture for the development of specific data models managing aggregation of competency information and related objects,
—ways to aggregate competency information and its related object data, and
—use cases used to support the development of the guidelines for aggregation of competency information and competency data.
Exclusions
The scope of this International Standard does not include an in-depth technical review of issues related to:
—adaptability to culture, language, and human functions;
—security;
—authentication;
—privacy;
—accessibility.
Areas not addressed
This International Standard currently does not address the following items:
—e-Profiles, which are a set of records that pertain to an individual (e.g. personnel records, student information system records);
—evidence information;
—assessment methods and metrics information
—ISO/IEC 20006 has been developed to support competency information and data management and exchange based on IT systems that are currently in use in Asia, Europe and North America. It is based on standardization that has occurred at transnational, national and regional levels in IT systems that are used to support human development including but not limited to:
—university, college, secondary school curricula development;
—learning activities supported by IT systems such as LMSs;
—IT systems that support LET and Human Resources that are based on a National Occupational Classification system (e.g. learning activity development, job banks, etc.);
—sector specific standardization in the area of IT and embedded skills;
—IT systems that support LET and human resource quality management and development activities. Further work may be needed to ensure that these standards support deeper IT integrations across various sectors and in other regions of the world. It is anticipated that some or all of these requirements will be addressed in future editions of ISO/IEC 20006, or in companion International Standards, Technical Specifications and Technical Reports.

ZWS ISO/IEC 20006: Part 2:2015
Information technology for learning, education and training - Information model for competency
Part 2:2015: Proficiency level information model
Price Code: Gr. 7
36 pages
Identical to ISO/IEC 20006-2:2015

This part of ISO/IEC 20006 provides an information model for competency proficiency and its level. Moreover, it presents several use cases that can be used by software developers, implementers,

and architects of human resources systems and learning systems. These use cases will support management and exchange of competency information within information technology systems used for learning, education, and training.
NOTE: This International Standard is based on work completed in ISO/IEC TR 24763.
This International Standard includes the following parts:
—ISO/IEC 20006-1, Information technology for learning, education and training — Information model for competency — Part 1: Competency general framework and information model
—ISO/IEC 20006-2, Information technology for learning, education and training — Information model for competency — Part 2: Proficiency level information model
—ISO/IEC 20006-3, Information technology for learning, education and training — Information model for competency — Part 3: Guidelines for aggregations of competency information and data
This part of ISO/IEC 20006 provides an information model used to express the semantics of competency proficiency and its level and can be used to support the management and exchange of competency information amongst information technology systems for learning, education, and training. This part of ISO/IEC 20006 provides
—information model for expressing semantics of competency proficiency and its levels, and
—use cases used to support the development of the competency proficiency level information model.
ISO/IEC 200006-1 provides a framework, information model and use cases to support the management and exchange of competency information. ISO/IEC 20006-3 provides guidelines regarding the aggregation of competency information and data.

ZWS ISO 20072:2011
Aerosole drug device design verification – Requirements and test methods
Price Code: Gr.8
43 pages
Identical to ISO 20072:2009

Applies to the design labelling ,instructions fo use and testing requirement for hand –held single and multi-use aerosol drug delivery devices(ADDDs) intended to deliver a metered or premetered aerosolized medication to or by means of the human respiratory tract (including nasal, oral, tracheal, bronchial and alveolar sites). Applies to both refillable and disposable devices intended for personal use.

ZWS ISO 20008: Part 1:2013
Information technology -Security techniques - Anonymous digital signatures
Part 1: General
Price Code: Gr.6
22 pages
Identical to ISO 20008-1:2013/AMD 1:2023

This part of ISO/IEC 20008 specifies principles, including a general model, a set of entities, a number of processes, and general requirements for the following two categories of anonymous digital signature mechanisms:
a)signature mechanisms using a group public key, and
b)signature mechanisms using multiple public keys.

ZWS ISO 20008: Part 2:2013/AMD 1:2023
Information technology - Security techniques - Anonymous digital signatures
Part 2: Mechanisms using a group public key
Price Code: Gr.9
101 pages
Identical to ISO 20008-2:2013/AMD 1:2023

This part of ISO/IEC 20008 specifies anonymous digital signature mechanisms, in which a verifier makes use of a group public key to verify a digital signature. It provides:
—a general description of an anonymous digital signature mechanism using a group public key, and
—a variety of mechanisms that provide such anonymous digital signatures.
For each mechanism, this part of ISO/IEC 20008 specifies
—the process for generating group member signature keys and a group public key,
—the process for producing signatures,
—the process for verifying signatures,
—the process for opening signatures (if the mechanism supports opening),
—the process for linking signatures (if the mechanism supports linking), and
—the process for revoking group members.

ZWS ISO 20009: Part 3:2022
Information security - Anonymous entity authentication
Part 3: Mechanisms based on blind signatures
Price Code: Gr.6
16 pages
Identical to ISO 20009-3:2022

This document provides general descriptions and specifications of anonymous entity authentication mechanisms based on blind digital signatures.

ZWS ISO 20128:2006
Milk products – Enumeration of presumptive lactobacillus acidophilus in milk products on a selective medium – colony count technique at 37^0C.
Price Code: Gr .4
11 pages
Identical to ISO 20128:2006

Specifies a method for the enumeration of presumptive Lactobacillus acidophilus in milk products on a selective medium by using a colony-count technique at 37^0C.

ZWS ISO 20150:2019
Footwear and footwear components — Quantitative challenge test method to assess antifungal activity
Price Code: Gr .6
11 pages
Identical to ISO 20150:2019

This document specifies quantitative challenge test methods for evaluating the antifungal activity of footwear and footwear components. This document is applicable only to footwear and components that claim to have antifungal (antimycotic) properties or antimicrobial properties. Two methods can be applied. The choice of method depends on the material properties and test microorganisms. Dynamic challenge test method can be applied to all types of materials. For single absorbent materials, static challenge test method is recommended. Brief descriptions of each method are given in 11.2 and 11.3.

ZWS ISO 20166: Part 1:2018
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for formalin-fixed and paraffin-embedded (FFPE) tissue:
Part 1: Isolated RNA
Price Code: Gr .7
26 pages
Identical to ISO 20166: Part 1:2018

This document gives guidelines on the handling, documentation, storage and processing of formalin-fixed and paraffin-embedded (FFPE) tissue specimens intended for RNA examination during the pre-examination phase before a molecular assay is performed. This

document is applicable to molecular in vitro diagnostic examinations including laboratory developed tests performed by medical laboratories and molecular pathology laboratories. It is also intended to be used by laboratory customers, in vitro diagnostics developers and manufacturers, biobanks, institutions and commercial organizations performing biomedical research, and regulatory authorities. NOTE International, national or regional regulations or requirements can also apply to specific topics covered in this document.

ZWS ISO 20166: Part 2:2018
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for formalin-fixed and paraffin-embedded (FFPE) tissue:
Part 2: Isolated proteins
Price Code: Gr .6
20 pages
Identical to ISO 20166: Part 2:2018

This document gives guidelines on the handling, documentation, storage and processing of formalin-fixed and paraffin-embedded (FFPE) tissue specimens intended for the examination of isolated proteins during the pre-examination phase before a molecular assay is performed. This document is applicable to molecular in vitro diagnostic examinations including laboratory developed tests performed by medical laboratories and molecular pathology laboratories. It is also intended to be used by laboratory customers, in vitro diagnostics developers and manufacturers, biobanks, institutions and commercial organizations performing biomedical research, and regulatory authorities. This document is not applicable for protein examination by immunohistochemistry.

ZWS ISO 20166: Part 3:2018
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for formalin-fixed and paraffin-embedded (FFPE) tissue:
Part 3: Isolated DNA
Price Code: Gr .7
19 pages
Identical to ISO 20166: Part 3:2018

This document gives guidelines on the handling, documentation, storage and processing of formalin-fixed and paraffin-embedded (FFPE) tissue specimens intended for DNA examination during the pre-examination phase before a molecular assay is performed. This document is applicable to molecular in vitro diagnostic examinations including laboratory developed tests performed by medical laboratories and molecular pathology laboratories. It is also intended to be used by laboratory customers, in vitro diagnostics developers and manufacturers, biobanks, institutions and commercial organizations performing biomedical research, and regulatory authorities. NOTE: International, national or regional regulations or requirements can also apply to specific topics covered in this document.

ZWS ISO 20184: Part 1:2018
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for frozen tissue:
Part 1: Isolated RNA
Price Code: Gr .6
20 pages
Identical to ISO 20184: Part 1:2018

This document gives guidelines on the handling, documentation, storage and processing of frozen tissue specimens intended for RNA examination during the pre-examination phase before a molecular assay is performed. This document is applicable to any molecular in vitro diagnostic examination performed by medical laboratories and molecular pathology laboratories that evaluate RNA extracted from frozen tissue. It is also intended to be used by laboratory customers, in vitro diagnostics developers and manufacturers, biobanks, institutions and commercial organisations performing biomedical research, and regulatory authorities. Tissues that have undergone chemical stabilization pre-treatment before freezing are not covered in this document. NOTE International, national or regional regulations or requirements can also apply to specific topics covered in this document.

ZWS ISO 20184: Part 2:2018
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for frozen tissue:
Part 2: Isolated proteins
Price Code: Gr .6
17 pages
Identical to ISO 20184: Part 2:2018

This document gives guidelines on the handling, documentation, storage and processing of frozen tissue specimens intended for the examination of isolated proteins during the pre-examination phase before a molecular assay is performed. This document is applicable to any molecular in vitro diagnostic examination performed by medical laboratories and molecular pathology laboratories that evaluate proteins isolated from frozen tissue. It is also intended to be used by laboratory customers, in vitro diagnostics developers and manufacturers, biobanks, institutions and commercial organisations performing biomedical research, and regulatory authorities. NOTE International, national or regional regulations or requirements can also apply to specific topics covered in this document.

ZWS ISO 20186: Part 1:2019
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for venous whole blood:
Part 1: Isolated cellular RNA
Price Code: Gr .6
20 pages
Identical to ISO 20186: Part 1:2019

This document gives guidelines on the handling, storage, processing and documentation of venous whole blood specimens intended for cellular RNA examination during the pre-examination phase before a molecular examination is performed. This document covers specimens collected in venous whole blood collection tubes. This document is applicable to any molecular in vitro diagnostic examination performed by medical laboratories. It is also intended to be used by laboratory customers, in vitro diagnostics developers and manufacturers, biobanks, institutions and commercial organizations performing biomedical research, and regulatory authorities. Different dedicated measures are taken for stabilizing blood cell free circulating RNA and RNA in exosomes circulating in blood. These are not described in this document. Different dedicated measures are taken for collecting, stabilizing, transporting and storing capillary blood as well as for collecting and storing blood by paper based technologies or other technologies generating dried blood. These are not described in this document. This document does not cover the isolation of specific blood cells and subsequent isolation of cellular RNA therefrom. RNA in pathogens present in blood is not covered by this document.

ZWS ISO 20186: Part 2:2019
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for venous whole blood:
Part 2: Isolated genomic DNA
Price Code: Gr .6
19 pages
Identical to ISO 20186: Part 2:2019

This document gives guidelines on the handling, storage, processing and documentation of venous whole blood specimens intended for genomic DNA examination during the pre-examination phase before a molecular examination is performed. This document covers specimens collected in venous whole blood collection

tubes. This document is applicable to any molecular in vitro diagnostic examination performed by medical laboratories. It is also intended to be used by laboratory customers, in vitro diagnostics developers and manufacturers, biobanks, institutions and commercial organizations performing biomedical research, and regulatory authorities. Different dedicated measures are taken for stabilizing blood cell free circulating DNA, which are not described in this document. NOTE Circulating cell free DNA in blood is covered in ISO 20186-3. Different dedicated measures are taken for collecting, stabilizing, transporting and storing capillary blood as well as for collecting and storing blood by paper based technologies or other technologies generating dried blood. These are not described in this document. This document does not cover the isolation of specific blood cells and subsequent isolation of genomic DNA therefrom. DNA in pathogens present in blood is not covered by this document.

ZWS ISO 20186: Part 3:2019
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for venous whole blood:
Part 2: Isolated circulating cell free DNA
Price Code: Gr .5
18 pages
Identical to ISO 20186: Part 3:2019

This document provides recommendations and requirements on the handling, storage, processing and documentation of venous whole blood specimens intended for circulating cell free DNA (ccfDNA) examination during the pre-examination phase before an analytical test is performed. This document covers specimens collected in venous whole blood collection tubes. This document is applicable to any molecular in vitro diagnostic examination performed by medical laboratories. It is also intended to be used by laboratory customers, in vitro diagnostics developers and manufacturers, biobanks, institutions and commercial organizations performing biomedical research, and regulatory authorities. Different dedicated measures are taken for stabilizing blood genomic DNA, which are not described in this document. Blood genomic DNA is covered in ISO 20186-2. Different dedicated measures are taken for preserving DNA in circulating exosomes, which are not described in this document.

ZWS ISO/IEC 20226:2025
Information technology — Artificial intelligence — Environmental sustainability aspects of AI systems
Price Code: Gr .5
67 pages
Identical to ISO/IEC 20226:2025

This document provides an overview of the environmental sustainability aspects (e.g. workload, resource and asset utilization, carbon impact, pollution, waste, transportation, location) of AI systems during their life cycle, and related potential metrics.
NOTE 1: This document does not identify opportunities on how AI, AI applications and AI systems can improve environmental, social or economic sustainability outcomes.
NOTE 2: This document can help other projects related to AI system environmental sustainability.

ZWS ISO 20252:2019
Market, opinion and social research, including insights and data analytics — Vocabulary and service requirements
Price Code: Gr. 8
68 pages
Identical to ISO 20252:2019
Supercedes ZWS ISO 20252:2007

This document establishes terms, definitions and service requirements for service providers conducting market, opinion and social research, including insights and data analytics (hereinafter referred to as "service providers"). Non-market research activities, such as direct marketing, are outside the scope of this document.

ZWS ISO 20301:2014
Health informatics - Health cards – General characteristics
Price Code: Gr. 4
14 pages
Identical to ISO 20301:2014

This International Standard describes general characteristics of machine-readable cards used in the field of healthcare. This International Standard is designed to confirm the identities of both the healthcare application provider and the healthcare cardholder in order that information can be exchanged by using cards issued for healthcare service. This International Standard focuses on the machine-readable cards of ID-1 type defined in ISO/IEC 7810 that are issued for healthcare services provided in a service area that crosses the national borders of two or more countries/areas. This International Standard applies directly or refers to existing ISO standards for the physical characteristics and recording techniques. Security issues follow the requirements of each healthcare card system. In addition, this International Standard regulates the visual information written on the card.

ZWS ISO 20344:2021
Personal protective equipment — Test methods for footwear
Price Code: Gr.7
89 pages
Identical to ISO 20344:2021

This document specifies methods for testing footwear designed as personal protective equipment.

ZWS ISO 20345:2021/Amd 1:2024
Personal protective equipment - Safety footwear
Price Code: Gr.7
42 pages
Identical to ISO 20345:2021

Specifies basic and additional requirements for safety footwear used for general purpose.It includes, for example, mechanical risks, slip resistance, thermal risks, ergonomic behavior.

ZWS ISO 20347:2021/Amd 1:2024
Personal protective equipment — Occupational footwear
Price Code: Gr.7
37 pages
Identical to ISO 20347:2021

This document specifies basic and additional (optional) requirements for occupational footwear used for general purpose. It includes, for example, mechanical risks, slip resistance, thermal risks, ergonomic behaviour. It also specifies requirements for occupational footwear equipped with customized insocks, customized occupational footwear or individual manufactured customized occupational footwear. This standard does not cover the property of high visibility because of interaction with the clothing (e.g. trousers cover the footwear) and work area conditions (e.g. dirt, mud). Special risks are covered by complementary job-related standards (e.g. footwear for firefighters, electrical insulating footwear, protection against chain saw injuries, protection against chemicals and against molten metal splash, protection for motorcycle riders).

ZWS ISO 20387:2018
Biotechnology - Biobanking - General requirements for biobanking
Price Code: Gr.7
37 pages
Identical to ISO 20387:2018

This document specifies general requirements for the competence, impartiality and consistent operation of biobanks including quality

control requirements to ensure biological material and data collections of appropriate quality. This document is applicable to all organizations performing biobanking, including biobanking of biological material from multicellular organisms (e.g. human, animal, fungus and plant) and microorganisms for research and development. Biobank users, regulatory authorities, organizations and schemes using peer-assessment, accreditation bodies, and others can also use this document in confirming or recognizing the competence of biobanks. This document does not apply to biological material intended for food/feed production, laboratories undertaking analysis for food/feed production, and/or therapeutic use.
NOTE 1 International, national or regional regulations or requirements can also apply to specific topics covered in this document.
NOTE 2 For entities handling human materials procured and used for diagnostic and treatment purposes ISO 15189 and other clinical standards are intended to apply first and foremost.

ZWS ISO 20400:2017
Sustainable Procurement
Price Code: Gr.10
55 pages
Identical to ISO 20400:2017

This document provides guidance to organizations, independent of their activity or size, on integrating sustainability within procurement, as described in ISO 26000. It is intended for stakeholders involved in, or impacted by, procurement decisions and processes.

ZWS ISO/TS 20428:2024
Genomics Informatics — Data elements and their metadata for describing structured clinical genomic sequence information in electronic health records
PriceCode: Gr.7
31 pages
Identical to ISO/TS 20428:2024

The document defines the data elements and the requisite metadata essential for implementing a structured clinical genomic sequencing report in electronic health records, particularly focusing on the genomic data generated by next-generation sequencing technology. This document:
—defines the composition of a structured clinical sequencing report (see Clause 6);
—defines the required data fields and their metadata for a structured clinical sequencing report (see Clause 7);
—defines the optional data (see Clause 8);
—covers the DNA-level variation from human samples using whole genome sequencing, whole exome sequencing, and targeted sequencing (disease-targeted gene panels) by next-generation sequencing technologies (though whole transcriptome sequencing and other technologies are important to provide better patient care and enable precision medicine, this document only deals with DNA-level changes);
—covers mainly clinical applications and clinical research such as clinical trials and translational research which uses clinical data (basic research and other scientific areas are outside the scope of this document);
—does not cover the other biological species, i.e. genomes of viruses and microbes;
—does not cover the Sanger sequencing methods.

ZWS ISO 20471:2013/Amd 1:2016
High visibility clothing — Test methods and requirements
PriceCode: Gr.7
23 pages
Identical to ISO 20471:2013

This International Standard specifies requirements for high visibility clothing which is capable of visually signalling the user's presence. The high visibility clothing is intended to provide conspicuity of the wearer in any light condition when viewed by operators of vehicles or other mechanized equipment during daylight conditions and under illumination of headlights in the dark. For further information concerning risk situations, see Annex A. This International Standard is not applicable to medium-risk and low-risk situations. Performance requirements are included for colour and retroreflection as well as for the minimum areas and for the placement of the materials in protective clothing.

ZWS ISO 20475:2018
Gas cylinders - Cylinder bundles - Periodic inspection and testing
Price Code: Gr.6
11 pages
Identical to ISO 20475:2018

This document specifies the requirements for the periodic inspection and testing of cylinder bundles containing compressed, liquefied and dissolved gas.
NOTE: Additional requirements for acetylene cylinder bundles are provided in Annex A.
This document also establishes general principles for the maintenance of cylinder bundles.
This document is not applicable to acetylene bundles with solvent-free acetylene cylinders.
This document excludes the requirements for cylinder bundles when they are a part of a battery vehicle. For some specific applications, e.g. offshore, additional requirements can apply.

ZWS ISO 20541:2011
Milk and milk products – Determination of nitrate content – Method by enzymatic reduction and molecular absorption spectrometry after griess reaction
Price Code: Gr.7
15 pages
Identical to ISO 20541:2008

Specifies a method for the determination of the nitrate content of milk and milk products by molecular-absorption spectrometry after Griess reaction (preceded by enzymatic reduction).

ZWS ISO/TS 20559:2020
Graphical symbols - Safety colours and safety signs - Guidance for the development and use of a safety signing system
Price Code: Gr.6
16 pages
Identical to ISO/TS 20559:2020

This document serves to complement the basic standards for safety signs: the ISO 3864 series, ISO 7010, ISO 16069, ISO 23601 and ISO 17398, as well as ISO 45001. This document contains recommendations and explanations on the practical application of safety signs to form a system of communication intended to reduce risk.

ZWS ISO 20560: Part 1:2024
Safety information for the content of piping systems and tanks Part 1: Piping systems
Price Code: Gr.7
26 pages
Identical to ISO 20560-1:2024

This document specifies safety information for overground piping systems related to the content of the piping system and associated hazards for the purposes of accident prevention, reducing risks to health and providing information for use in case of an emergency. This document does not cover piping that is buried. Safety signing of the hazards in an area is not part of this document. This document does not cover risk assessment. This document can also be used for marine structures and ships.

ZWS ISO 20588:2019
Animal feeding stuffs - Vocabulary
Price Code: Gr.6
17 pages
Identical to ISO 20588:2019

This document defines terms relating to animal feeding stuffs.
NOTE: It includes the most common and frequently used terms in the field of animal feeding stuffs.

ZWS ISO/IEC 20648:2024
Information technology – TLS specification for storage systems
Price Code: Gr.6
14 pages
Identical to ISO 20648:2024

This document details the requirements for use of the Transport Layer Security (TLS) protocol in conjunction with data storage technologies. The requirements set out in this document are intended to facilitate secure interoperability of storage clients and servers as well as non-storage technologies that may have similar interoperability needs. This document is relevant to anyone involved in owning, operating or using data storage devices. This includes senior managers, acquirers of storage products and service, and other non-technical managers or users, in addition to managers and administrators who have specific responsibilities for information security and/or storage security, storage operation, or who are responsible for an organization's overall security program and security policy development. It is also relevant to anyone involved in the planning, design and implementation of the architectural aspects of storage security.

ZWS ISO 20675:2018
Biogas - Biogas production, conditioning, upgrading and utilization - terms, definitions and classification scheme
Price Code: Gr.5
20 pages
Identical to ISO 20675:2018

This document defines terms and describes classifications related to biogas production by anaerobic digestion, gasification from biomass and power to gas from biomass sources, biogas conditioning, biogas upgrading and biogas utilization from a safety, environmental, performance and functionality perspective, during the design, manufacturing, installation, construction, testing, commissioning, acceptance, operation, regular inspection and maintenance phases. Biogas installations are, among others, applied at industrial plants like food and beverage industries, waste water treatment plants, waste plants, landfill sites, small scale plants next to agricultural companies and small scale household installations. The following topics are excluded from this document: boilers, burners, furnaces and lightening, in case these are not specifically applied for locally produced biogas;
gas-fuelled engines for vehicles and ships;
the public gas grid;
specifications to determine biomethane quality;
transportation of compressed or liquefied biogas;
transportation of biomass or digestate;
assessment and determination whether biomass is sourced sustainably or not.
This document describes the following for information purposes as well:
the parameters to determine the size (e.g. small, medium-sized, or large scale);
the parameters to determine the type of installation (e.g. domestic, industrial);
the parameters to describe the type of technique;
terms and processes in order to develop health, safety and environmental protection guidelines for biogas installations.

ZWS ISO 20700:2017
Guidelines for management consultancy services
Price Code: Gr.7
30 pages
Identical to ISO 20700:2017

This document provides guidelines for the effective delivery of management consultancy services.

ZWS ISO 20776: 2009
Clinicaly laboratory testing and in vitro diagnostic test systems - Susceptibility testing of infectious agents and evaluation of performance of antimicrobial susceptibility test devices
Part 1: Reference method for testing the in vitro activity of antimicrobial agents against rapidily growing aerobic bacteria involved in infectious diseases
Price Code: Gr. 6
19 pages

Describes one reference method, broth microdilution for determination of MICs. The MIC reflects the activity of the drug under the described test conditions and can be interpreted for clinical management purposes by taking into account other factors such as pharmacology or bacterial resistance mechanism.

Part 2: Evaluation of performance of antimicrobial susceptibility test devices
Price Code: Gr. 4
9 pages
Identical to ISO 20776.2: 2007

Establishes acceptable performance criteria for antimicrobial susceptibility test (AST) device that are used to determine minimum inhibitory concentrations (MIC) and/ or interpretive category determinations of susceptible, intermediate and resistant (SIR) strains of bacteria to antimicrobial agents in medical laboratories.

ZWS ISO 20712: Part 2:2007
Water safety signs and beach safety flags
Part 2: Specifications for beach safety flags - Colour, shape, meaning and performance
Price Code: Gr. 5
7 pages

This part of ISO 20712 specifies requirements for the shape and colour of beach safety flags for the management of activities on coastal and inland beaches, to be used for giving information on wind and water conditions and other hazardous conditions, and to indicate the location of swimming and other aquatic activity zones extending from the beach into the water. It also specifies the colorimetric and photometric properties and the physical properties, including strength and colour fastness, of the materials from which beach safety flags are to be made. It is not applicable to flags for use on firing ranges or to flags for use to indicate water quality or to signalling used for maritime traffic.
NOTE: The illustrations in this part of ISO 20712 are as accurate as possible within the limitations of the printing process.

ZWS ISO 20712: Part 3:2007
Water safety signs and beach safety flags
Part 3: Guidance for use
Price Code: Gr. 5
22 pages

This document gives guidance for the selection and use of water safety signs as specified in ISO 7010 and beach safety flags as specified in ISO 20712-2 in aquatic environments. It provides guidance on their location, mounting positions, lighting and maintenance. It also provides guidance on the design and location of multiple signs. This document does not apply to traffic signs for

use on the public highway or maritime signalling. It is not applicable to flags for use on firing ranges or to flags used to indicate water quality. It does not cover means of escape signs or their possible illumination.
NOTE: This document refers to water safety signs which were originally specified in ISO 20712-1.1) These water safety signs have been integrated in ISO 7010, but are not specifically identified as water safety signs.

ZWS ISO 20766: Part 1:2018
Road vehicles - liquefied petroleum gas (LPG) fuel system components. Part 1: general requirements and definitions
Price Code: Gr. 5
8 pages
27 pages
Identical to ISO 20766-1:2018.

This document specifies general requirements and definitions of liquefied petroleum gas fuel system components, intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles, and specifies requirements for instructions and marking. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162.

ZWS ISO 20766: Part 2:2018
Road vehicles — liquefied petroleum gas (LPG) fuel system components — Part 2: performance and General test methods
Price Code: Gr. 5
27 pages
Identical to ISO 20766-2:2018.

This document specifies performance and general test methods of liquefied petroleum gas fuel system components, intended for use on the types of motor vehicles as defined in ISO 3833.
This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using liquefied petroleum gas in accordance with ISO 9162.

ZWS ISO 20766: Part 3:2018
Road vehicles — liquefied Petroleum gas (LPG) fuel system components —part 3: 80% stop valve
Price Code: Gr. 4
6 pages
Identical to ISO 20766-3:2018.

This document specifies general requirements and definitions of liquefied petroleum gas fuel components, intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles, and specifies requirements for instructions and marking. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162.

ZWS ISO 20766: Part 4:2018
Road vehicles — liquefied petroleum gas (LPG) fuel system components — Part 4: level indicator
Price Code: Gr. 4
5 pages
Identical to ISO 20766-4:2018.

This document specifies general requirements and definitions of liquefied petroleum gas fuel components, intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles, and specifies requirements for instructions and marking. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162.

ZWS ISO 20766: Part 5:2023
Road vehicles – liquefied petroleum gas (LPG) fuel system components. Part 5: fuel selection system and electrical installations
Price Code: Gr. 4
5 pages
Identical to ISO 20766-5:2023.

This document specifies general requirements and definitions of liquefied petroleum gas fuel components (fuel selection system and electrical installations, intended for use on the types of motor vehicles as defined in ISO 3833). It also provides general design principles, and specifies requirements for instructions and marking. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162.

ZWS ISO 20766: Part 6:2019/Amd 1:2022
Road vehicles – liquefied petroleum gas (LPG) fuel system components. Part 6: pressure relief valves (prv)
Price Code: Gr. 7
27 pages
Identical to Standard 20766-6:2019, (Amended 2022).

This document specifies general requirements and definitions of liquefied petroleum gas fuel components, intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles, and specifies requirements for instructions and marking.
This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162.

ZWS ISO 20766: Part 7:2023
Road vehicles – liquefied petroleum gas (LPG) fuel system components.
Part 7: remotely controlled service valve with excess flow valve
Price Code: Gr. 5
27 pages
Identical to ISO 20766-7:2023.

This document specifies general requirements and definitions of the liquefied petroleum gas fuel component: remotely con-trolled service valve with excess flow valve. This component is intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles and speci-fies requirements for instructions and marking.
This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162. It is not applicable to the following:
a)fuel containers;
b)stationary gas engines;
c)container mounting hardware;
d)electronic fuel management;
e)refuelling receptacles.
It is recognized that miscellaneous components not specifically addressed herein can be examined for compliance with the criteria of any applicable part of the ISO 20766 series, including testing to the appropriate functional tests.
All references to pressure in this document are considered gauge pressures unless otherwise specified.
This document applies to device which have a service pressure in the range of 110 kPa (butane rich at 20 °C) and 840 kPa (propane rich at 20 °C), hereinafter referred to in this document. Other service pressures can be accommodated by adjusting the pressure by the appropriate factor (ratio).

ZWS ISO 20766: Part 8:2023
Road vehicles – liquefied petroleum gas (LPG) fuel system components. Part 8: fuel pump
Price Code: Gr. 4
4 pages
Identical to ISO 20766-8:2023.

This document specifies general requirements for the fuel pump component of liquefied petroleum gas fuel, intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles and specifies requirements for instructions and marking. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162. It is not applicable to the following:
a)fuel containers;
b)stationary gas engines;
c)container mounting hardware;
d)electronic fuel management;
e)refuelling receptacles.
It is recognized that miscellaneous components not specifically addressed herein can be examined for compliance with the criteria of any applicable part of the ISO 20766 series, including testing to the appropriate functional tests.
All references to pressure in this document are considered gauge pressures unless otherwise specified.
This document applies to device which have a service pressure in the range of 110 kPa (butane rich at 20 °C) and 840 kPa (propane rich at 20 °C), hereinafter referred to in this document. Other service pressures can be accommodated by adjusting the pressure by the appropriate factor (ratio).

ZWS ISO 20766: Part 9:2019
Road vehicles — liquefied petroleum gas (LPG) fuel system components —Part 9 : pressure relief Devices (prd)
Price Code: Gr. 5
8 pages
Identical to ISO 20766:2019.

This document specifies general requirements and definitions of liquefied petroleum gas fuel components, intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles, and specifies requirements for instructions and marking. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162. It is not applicable to the following: a)fuel containers; b)stationary gas engines; c)container mounting hardware; d)electronic fuel management; e) refuelling receptacles.

ZWS ISO 20766: Part 10:2019
Road vehicles - liquefied Petroleum gas (LPG) fuel system Components Part 10: gas-tight housing
Price Code: Gr. 4
4 pages
Identical to ZWS ISO 20766-10: 2019

This document specifies general requirements and definitions of the liquefied petroleum gas fuel component: remotely controlled service valve with excess flow valve. This component is intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles and specifies requirements for instructions and marking. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162. It is not applicable to the following:
a) fuel containers;
b) stationary gas engines;
c) container mounting hardware;
d) electronic fuel management;
e) refuelling receptacles.

ZWS ISO 20766: Part 11:2020
Road vehicles — liquefied petroleum gas (LPG) fuel system components Part 11: manual shut-off valve
Price Code: Gr. 4
4 pages
Identical to 20766-11:2020

This document specifies general information regarding the manual shut off valve component of liquefied petroleum gas fuel, intended for use on the types of motor vehicles as defined in ISO 3833. It provides general design principles and specifies requirements for instructions and marking. It also specifies test requirements for the manual shut off valve. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162.

ZWS ISO 20766: Part 12:2019
Road vehicles — liquefied petroleum gas (LPG) fuel system components
Part 12: non-return valve
Price Code: Gr.4
4 pages
Identical to ISO 20766-12 published(2019).

This document specifies general information regarding the non-return valve component of liquefied petroleum gas fuel, intended for use on the types of motor vehicles as defined in ISO 3833. It provides general design principles and specifies requirements for instructions and marking. It also specifies test requirements for the non-return valve. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162.

ZWS ISO 20766: Part 13:2022
Road vehicles — liquefied petroleum gas (LPG) fuel system components .
Part 13: multivalve
Price Code: Gr. 4
4 pages
Identical to ISO 20766-13:2022.

This document specifies general requirements for the multivalve component of liquefied petroleum gas fuel, intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles and specifies requirements for instructions and marking. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162. It is not applicable to the following:
a)fuel containers;
b)stationary gas engines;
c)container mounting hardware;
d)electronic fuel management;
e)refuelling receptacles.

ZWS ISO 20766: Part 14:2023
Road vehicles — Liquefied petroleum gas (LPG) fuel system components
Part 14: Vaporizer/pressure regulator
Price Code: Gr. 4
6 pages
Identical to ISO 20766-14:2023

This document specifies general requirements for the vaporizer/pressure regulator, a component of liquefied petroleum gas fuel, intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles and specifies requirements for instructions and marking. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162. It is not applicable to the following:

a) fuel containers;
b) stationary gas engines;
c) container mounting hardware;
d) electronic fuel management;
e) refuelling receptacles.
It is recognized that miscellaneous components not specifically addressed herein can be examined for compliance with the criteria of any applicable part of the ISO 20766 series, including testing to the appropriate functional tests. All references to pressure in this document are considered gauge pressures unless otherwise specified. This document applies to devices which have a service pressure in the range of 110 kPa (butane rich at 20 °C) and 840 kPa (propane at 20 °C), hereinafter referred to in this document. Other service pressures can be accommodated by adjusting the pressure by the appropriate factor (ratio).

ZWS ISO 20766: Part 15:2023
Road vehicles — Liquefied petroleum gas (LPG) fuel system components
Part 15: Excess flow valve
Price Code: Gr. 4
4 pages
Identical to ISO 20766-15:2023

This document specifies general requirements of the liquefied petroleum gas fuel component, excess flow valve, intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles and specifies requirements for instructions and marking. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162. It is not applicable to the following:
a) fuel containers;
b) stationary gas engines;
c) container mounting hardware;
d) refuelling receptacles.
It is recognized that miscellaneous components not specifically addressed herein can be examined for compliance with the criteria of any applicable part of the ISO 20766 series, including testing to the appropriate functional tests. All references to pressure in this document are considered gauge pressures unless otherwise specified. This document applies to devices which have a service pressure in the range of 110 kPa (butane rich at 20 °C) and 840 kPa (propane rich at 20 °C), hereinafter referred to in this document. Other service pressures can be accommodated by adjusting the pressure by the appropriate factor (ratio).

ZWS ISO 20766: Part 16:2023
Road vehicles — Liquefied petroleum gas (LPG) fuel system components:
Part 16: Injectors and gas mixing device/fuel rail
Price Code: Gr. 4
4 pages
Identical to ISO 20766-16:2023

This document specifies general requirements for the injectors and gas mixing device/fuel rail, components of liquefied petroleum gas fuel, intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles and specifies requirements for instructions and marking. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162. It is not applicable to the following:
a) fuel containers;
b) stationary gas engines;
c) container mounting hardware;
d) electronic fuel management;
e) refuelling receptacles.
It is recognized that miscellaneous components not specifically addressed herein can be examined for compliance with the criteria of any applicable part of the ISO 20766 series, including testing to the appropriate functional tests. All references to pressure in this document are considered gauge pressures unless otherwise specified. This document applies to devices which have a service pressure in the range of 110 kPa (butane rich at 20 °C) and 840 kPa (propane at 20 °C), hereinafter referred to in this document. Other service pressures can be accommodated by adjusting the pressure by the appropriate factor (ratio).

ZWS ISO 20766: Part 17:2022
Road vehicles — Liquefied petroleum gas (LPG) fuel system components:
Part 16: Injectors and gas mixing device/fuel rail
Price Code: Gr. 4
4 pages
Identical to ISO 20766-17:2022

This document specifies general requirements and definitions for the gas dosage unit when not combined with the gas injection device (a liquefied petroleum gas fuel component), intended for use on the types of motor vehicles defined in ISO 3833. It also provides general design principles and specifies requirements for instructions and marking. This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162. It is not applicable to the following:
a) fuel containers;
b) stationary gas engines;
c) container mounting hardware;
d) electronic fuel management;
e) refuelling receptacles.
It is recognized that miscellaneous components not specifically addressed herein can be examined for compliance with the criteria of any applicable part of the ISO 20766 series, including testing to the appropriate functional tests. All references to pressure in this document are considered gauge pressures unless otherwise specified.
This document applies to device which have a service pressure in the range of 110 kPa (butane rich at 20 °C) and 840 kPa (propane rich at 20 °C), hereafter referred to in this document. Other service pressures can be accommodated by adjusting the pressure by the appropriate factor (ratio).

ZWS ISO 20780:2018
Space systems — fibre optic components — Design and verification requirements
Price Code: Gr. 6
20 pages
Identical to ISO 20780:2018

This document specifies requirements for the design and verification of fibre optic components used in space fibre optic sub-systems. In this document, the requirements are established to assure the reliability and environmental adaptability of fibre optic components in space environmental conditions. These are in a range of applications such as ground systems, unmanned applications and manned systems. This document suggests a set of requirements to be applied to the selection of space fibre optic components.

ZWS ISO 20816: Part 1:2016
Mechanical Vibration-Measurement and evaluation of machine vibration:
Part 1: General guidelines
Price Code: Gr. 7
33 pages
Identical to ISO 20816-1:2016

This document establishes general conditions and procedures for the measurement and evaluation of vibration using measurements made on rotating, non-rotating and non-reciprocating parts of complete machines. It is applicable to measurements of both absolute

and relative radial shaft vibration with regard to the monitoring of radial clearances, but excludes axial shaft vibration. The general evaluation criteria, which are presented in terms of both vibration magnitude and change of vibration, relate to both operational monitoring and acceptance testing. They have been provided primarily with regard to securing reliable, safe, long-term operation of the machine while minimizing adverse effects on associated equipment. Guidelines are also presented for setting operational limits.

NOTE 1: The evaluation criteria for different classes of machinery will be included in other parts of ISO 20816 when they become available. In the meantime, guidelines are given in Clause 6.

NOTE 2: The term "shaft vibration" is used throughout ISO 20816 because, in most cases, measurements are made on machine shafts. However, the ISO 20816 series is also applicable to measurements made on other rotating elements if such elements are found to be more suitable, provided that the guidelines are respected. For the purposes of ISO 20816, operational monitoring is considered to be those vibration measurements made during the normal operation of a machine. The ISO 20816 series permits the use of different measurement quantities and methods, provided that they are well-defined and their limitations are set out, so that the interpretation of the measurements is well-understood. The evaluation criteria relate only to the vibration produced by the machine itself and not the vibration transmitted to it from outside. This document does not include consideration of torsional vibration.

NOTE 3: For torsional vibration, see, for example, ISO 3046 5, ISO 22266 1 or VDI 2039.

ZWS ISO 20816: Part 2:2017

Mechanical vibration - Measurement and evaluation of machine vibration

Part 2: Land-based gas turbines, steam turbines and generators in excess of 40 MW, with fluid-film bearings and rated speeds of 1 500 r/min, 1 800 r/min, 3 000 r/min and 3 600 r/min

Price Code: Gr .7

23 pages

Identical to ISO 20816-2:2017

This document is applicable to land-based gas turbines, steam turbines and generators (whether coupled with gas and/or steam turbines) with power outputs greater than 40 MW, fluid-film bearings and rated speeds of 1 500 r/min, 1 800 r/min, 3 000 r/min or 3 600 r/min. The criteria provided in this document can be applied to the vibration of the gas turbine, steam turbine and generator (including synchronizing clutches). This document establishes provisions for evaluating the severity of the following in-situ, broad-band vibration:

a)structural vibration at all main bearing housings or pedestals measured radial (i.e. transverse) to the shaft axis;

b)structural vibration at thrust bearing housings measured in the axial direction;

c)vibration of rotating shafts radial (i.e. transverse) to the shaft axis at, or close to, the main bearings.

These are in terms of the following:

—vibration under normal steady-state operating conditions;

—vibration during other (non-steady-state) conditions when transient changes are taking place, including run up or run down, initial loading and load changes;

—changes in vibration which can occur during normal steady-state operation.

This document is not applicable to the following:

i)electromagnetic excited vibration with twice line frequency at the generator stator windings, core and housing;

ii)aero-derivative gas turbines (including gas turbines with dynamic properties similar to those of aero-derivatives);

NOTE: ISO 3977 3 defines aero-derivatives as aircraft propulsion gas generators adapted to drive mechanical, electrical or marine propulsion equipment. Large differences exist between heavy-duty and aero-derivative gas turbines, for example, in casing flexibility, bearing design, rotor-to-stator mass ratio and mounting structure. Different criteria, therefore, apply for these two turbine types.

iii)steam turbines and/or generators with outputs less than or equal to 40 MW or with rated speeds other than 1 500 r/min, 1 800 r/min, 3 000 r/min or 3 600 r/min (although generators seldom fall into this latter category) (see ISO 7919 3 and ISO 10816 3);

iv)gas turbines with outputs less than or equal to 40 MW or with rated speeds other than 1 500 r/min, 1 800 r/min, 3 000 r/min or 3 600 r/min (see ISO 7919 3 or ISO 7919 4 and ISO 10816 3 or ISO 10816 4);

v) the evaluation of combustion vibration but does not preclude monitoring of combustion vibration.

ZWS ISO 20816: Part 3:2022

Mechanical vibration - Measurement and evaluation of machine vibration

Part 3: Industrial machinery with a power rating above 15 kW and operating speeds between 120 r/min and 30 000 r/min

Price Code: Gr .7

24 pages

Identical to ISO 20816-3:2022

This document specifies the general requirements for evaluating the vibration of various coupled industrial machine types with a power above 15 kW and operating speeds between 120 r/min and 30 000 r/min when measurements are made in-situ. Guidelines for applying evaluation criteria are provided for measurements taken on non-rotating and rotating parts under normal operating conditions. The guidelines are presented in terms of both steady running vibration values and in terms of changes to vibration magnitude, which can occur in these steady values. The numerical values presented are intended to serve as guidelines based on worldwide machine experience, but shall be applied with due regard to specific machine features which can cause these values to be inappropriate. In general, the condition of a machine is assessed by consideration of both the shaft vibration and the associated structural vibration, as well as specific frequency components, which do not always relate to the broadband severity values presented. The machine types covered by this document include:

a)steam turbines and generators with outputs less than or equal to 40 MW (see Note 1 and Note 2);

b)steam turbines and generators with outputs greater than 40 MW which normally operate at speeds other than 1 500 r/min, 1 800 r/min, 3 000 r/min or 3 600 r/min (although generators seldom fall into this category) (see Note 1);

c)rotary compressors;

d)industrial gas turbines with outputs less than or equal to 3 MW (see Note 2);

e)turbofans;

f)electric motors of any type, if the coupling is flexible. When a motor is rigidly coupled to a machine type covered by any other part of ISO 20816, the motor may be assessed either against that other part or against ISO 20816-3;

g)rolls and mills;

h)conveyors;

i)variable speed couplings; and

j)blowers or fans (see Note 3).

NOTE 1: Land based steam turbines, gas turbines and generators of greater than 40 MW capacity, which run at 1 500 r/min, 1 800 r/min, 3 000 r/min or 3 600 r/min are covered by the requirements of ISO 20816-2. Generators in hydro-electric plants are covered by ISO 20816-5.

NOTE 2: Gas turbines of power greater than 3 MW are covered by ISO 20816-4.

NOTE 3: The vibration criteria presented in this document are generally only applicable to fans with power ratings greater than 300 kW or fans which are not flexibly supported. As and when circumstances permit, recommendations for other types of fans, including those of lightweight sheet-metal construction, will be prepared. Until these recommendations are available, classifications can be agreed between the manufacturer and the customer; using results of previous operational experience (see also ISO 14694).

Machinery including a geared stage can fall under the scope of this document. For performing acceptance tests of gearboxes please refer to ISO 20816-9. The following types of industrial machine are not covered by this document:
k)land-based gas turbines, steam turbines and generators with power outputs greater than 40 MW and speeds of 1 500 r/min, 1 800 r/min, 3 000 r/min or 3 600 r/min (see ISO 20816 2);
l)gas turbine sets with power outputs greater than 3 MW (see ISO 20816 4);
m)machine sets in hydraulic power generating and pumping plants (see ISO 20816 5);
n)reciprocating machines and machines solidly coupled to reciprocating machines (see ISO 10816 6);
o)rotordynamic pumps and any integrated or solidly coupled electric motors where the impeller is mounted directly on the motor shaft or is rigidly attached to it (see ISO 10816 7);
p)reciprocating compressor systems (see ISO 20816-8);
q)rotary positive displacement compressors (e. g. screw compressors);
r)submerged motor-pumps; and
s)wind turbines (see ISO 10816 21).
The requirements of this document apply to in-situ broad-band vibration measurements taken on the shafts, bearings, bearing pedestals, or housings of machines under steady-state operating conditions within their nominal operating speed range. The requirements relate to both acceptance testing and operational monitoring. The evaluation criteria included in this document can be applied to both continuous and non-continuous monitoring situations. The requirements of this document cover machines which can have gears or rolling element bearings, but do not address the diagnostic evaluation of the condition of those gears or bearings. The requirements in this document are applicable only for the vibration produced by the machine set itself and not for vibration that is transmitted to the machine set from external sources.

ZWS ISO 20888:2020
Dentistry – Vocabulary and designation system for forensic orodental data
Price Code: Gr .8
63 pages
Identical to ISO 20888:2020

This document defines the terms used to describe the distinctive characteristics of an individual's mouth by dentists and forensic dental experts. These terms are organized by concepts based on a forensic approach to the characteristics of a mouth, with many concepts specific to the identification domain that are not defined elsewhere in ISO dentistry vocabularies (e.g. "present tooth"). The hierarchical structure of this document is designed to describe attributes of a tooth, the mouth and a prosthesis/orthosis with increasing levels of discriminative characteristics (e.g. material characteristics, restored tooth surface) and the possibility to connect any level of description of an attribute with the most comprehensive concept. This document is intended to be used for data exchange between antemortem and postmortem files and remove ambiguity on the terms used to describe an individual's mouth. This document is intended to be used in conjunction with ISO 1942 and ISO 3950.

ZWS ISO/IEC 20889: 2018
Privacy enhancing data de-identification terminology and classification of techniques
Price Code: Gr .7
47 pages
Identical to ISO 20889:2018

This document provides a description of privacy-enhancing data de-identification techniques, to be used to describe and design de-identification measures in accordance with the privacy principles in ISO/IEC 29100. In particular, this document specifies terminology, a classification of de-identification techniques according to their characteristics, and their applicability for reducing the risk of re-identification. This document is applicable to all types and sizes of organizations, including public and private companies, government entities, and not-for-profit organizations, that are PII controllers or PII processors acting on a controller's behalf, implementing data de-identification processes for privacy enhancing purposes.

ZWS ISO 20914:2019
Medical laboratories — practical guidance for the estimation of measurement uncertainty
Price Code: Gr. 7
75 pages
Identical to ISO 20780:2018

This document provides practical guidance for the estimation and expression of the measurement uncertainty (MU) of quantitative measurand values produced by medical laboratories. Quantitative measurand values produced near the medical decision threshold by point-of-care testing systems are also included in this scope. This document also applies to the estimation of MU for results produced by qualitative (nominal) methods which include a measurement step. It is not recommended that estimates of MU be routinely reported with patient test results, but should be available on request.

ZWS ISO 20916: 2019
In vitro diagnostic medical devices — clinical performance studies using specimens from human subjects — good study practice
Price Code: Gr. 8
60 pages
Identical to ISO 20916: 2019
This document defines good study practice for the planning, design, conduct, recording and reporting of clinical performance studies carried out to assess the clinical performance and safety of in vitro diagnostic (IVD) medical devices for regulatory purposes.
NOTE 1: The purpose of these studies is to assess the ability of an IVD medical device in the hands of the intended user, to yield results pertaining to a particular medical condition or physiological/pathological state, in the intended population. The document is not intended to describe whether the technical specifications of the IVD medical device in question are adequately addressed by the clinical performance study. This document identifies the principles that underpin clinical performance studies and specifies general requirements.

ZWS ISO 21001:2025
Educational organizations — Management systems for educational organizations — Requirements with guidance for use
Price Code: Gr. 10
70 pages
Identical to ISO 21001:2025

This document specifies requirements and provides guidance for a management system for educational organizations (EOMS) when such an organization:
a) needs to demonstrate its ability to support the acquisition and development of competence through teaching, learning or research;
b) aims to enhance satisfaction of learners, other beneficiaries and staff through the effective application of its EOMS, including processes for improvement of the system and assurance of conformity to the requirements of learners and other beneficiaries.
All requirements of this document are generic and intended to be applicable to any educational organization that uses a curriculum to support the development of competence through teaching, learning, training or research, regardless of the type, size or method of delivery. This document can be applied to educational organizations within larger organizations whose core business is not education, such as professional training departments. This document

also provides guidance for the use of a EOMS. This document does not apply to organizations that only produce or manufacture educational products.

ZWS ISO 21067: Part1:2016
Packaging – Vocabulary
Part 1: General terms
Price Code: Gr 4
19 pages
Identical to ISO 21067-1:2016

Outlines the requirements of a safety management system for adventure tourism activity providers.

ZWS ISO 21101:2014
Adventure tourism – safety management systems - Requirements
Price Code: Gr 6
24 pages
Identical to ISO 21101:2014

Outlines the requirements of a safety management system for adventure tourism activity providers.

ZWS ISO 21103:2014
Adventure tourism – Information for participation
Price Code: Gr 5
7 pages
Identical to ISO 21103:2014

Specifies minimum requirements for information to be provided to participation before, during and after adventure tourism activities.

ZWS ISO 21151:2020
In vitro diagnostic medical devices – measurement of quantities in samples of biological origin – Requirements for international harmonization protocols establishing metrological traceability of values assigned to calibrators and human samples
PriceCode: Gr. 7
22 pages
Identical to ISO 21151:2020

This document specifies requirements for a protocol implemented by an international body to achieve equivalent results among two or more IVD MDs for the same measurand for cases where there are no reference measurement procedures and no fit-for-purpose certified reference materials or international conventional calibrators. In this case, the harmonisation protocol defines the highest level of metrological traceability for the stated measurand. This document can be applied in cases when certified reference materials or international conventional calibrators exist but are not fit-for-purpose because, for example, they are not commutable with human samples.

ZWS ISO 21187:2005
Milk – Quantitative determination of bacteriological quality – Guidance for establishing and verifying a conversion relationship between routine method results and anchor method results
Price Code: Gr 6
13 pages
Identical to ISO 21187:2004

Gives guidelines for the establishment of a conversion relationship between the results of a routine method and an and anchor method, and its verification for the quantitative determination of the bacteriological quality of milk.

ZWS ISO/TR 21276:2018
Clean cookstoves and clean cooking solutions –Vocabulary
Price Code: Gr 6
15 pages
Identical to ISO/TR 21187:2018

This document defines terms for use in documents prepared by ISO/TC 285. Basic schematic illustrations are also provided to demonstrate relationships among certain concepts defined herein. This document deliberately excludes some information that could be useful in the practice of testing and evaluation. Designation of specific products, even as examples, is avoided so that the document stays up-to-date and inclusive.

ZWS ISO 21298:2017
Health informatics — Functional and structural roles
Price Code: Gr 7
34 pages
Identical to ISO 21298:2017

This document defines a model for expressing functional and structural roles and populates it with a basic set of roles for international use in health applications. Roles are generally assigned to entities that are actors. This will focus on roles of persons (e.g. the roles of health professionals) and their roles in the context of the provision of care (e.g. subject of care). Roles can be structural (e.g. licensed general practitioner, non-licensed transcriptionist, etc.) or functional (e.g. a provider who is a member of a therapeutic team, an attending physician, prescriber, etc.). Structural roles are relatively static, often lasting for many years. They deal with relationships between entities expressed at a level of complex concepts. Functional roles are bound to the realization of actions and are highly dynamic. They are normally expressed at a decomposed level of fine-grained concepts. Roles addressed in this document are not restricted to privilege management purposes, though privilege management and access control is one of the applications of this document. This document does not address specifications related to permissions. This document treats the role and the permission as separate constructs. Further details regarding the relationship with permissions, policy, and access control are provided in ISO 22600.

ZWS ISO 21393:2021
Genomics informatics — Omics Markup Language (OML)
Price Code: Gr 7
44 pages
Identical to ISO 21393:2021

This document is applicable to the data exchange format that is designed to facilitate exchanging omics data around the world without forcing changes of any database schema. This document specifies the characteristics of OML from the following perspectives. From an informatics perspective, OML defines the data exchange format based on XML. This document gives guidelines for the specifications of the data exchange format, but this document excludes the database schema itself. From a molecular side of view, this document is applicable to all kinds of omics data, while this document excludes the details of the molecules (e.g., details of genomic sequence variations or whole genomic sequence). This document is also applicable to the molecular annotations including clinical concerns and relations with other omics concerns. From an application side of view, this document is applicable to the clinical field including clinical practice, preventive medicine, translational research, and clinical research including drug discovery. This document does not apply to basic research and other scientific fields. From a biological species side of view, this document is applicable to the human health-associated species as human, preclinical animals, and cell lines. This document does not apply to the other biological species.

ZWS ISO 21415: Part 1:2006
Wheat and wheat flour - Gluten content
Part 1:2006: Determination of wet gluten by a manual method
Price Code: Gr 5
9 pages
Identical to ISO 21415-1:2006
Replaces ISO 5531:1998

This part of ISO 21415 specifies a manual washing out method for the determination of the wet gluten content of wheat flour (Triticum aestivum L. and Triticum durum Desf.). This method is directly applicable to flour. It is also applicable to semolina and wheat after grinding, if their particle size distribution meets the specification given in Table B.1.

ZWS ISO 21415: Part 2:2015
Wheat and wheat flour - Gluten content
Part 2:2015: Determination of wet gluten and gluten index by mechanical means
Price Code: Gr 6
15 pages
Identical to ISO 21415-2:2015

This part of ISO 21415 specifies a method for determining the content of wet gluten and the gluten index for wheat flours (Triticum aestivum L. and Triticum durum Desf.) by mechanical means. This method is directly applicable to flours. It also applies to common and durum wheat after grinding, if their particular size distribution meets the specification given in Table B.1.

ZWS ISO 21439:2009
Clinical dosimetry-beta radiation sources for brachytherapy
Price Code: Gr.8
91 pages
Identical to ISO 21439:2009

Specifies methods for the determination of absorbed-dose distributors in water or tissue that are required prior to initiating procedures for the application of beta radiation in ophthalmic tumor and intravascular brachytherapy

ZWS ISO 21474: Part 1:2020
In vitro diagnostic medical devices – multiplex molecular testing for nucleic acids
Part 1: Terminology and general requirements for nucleic acid quality evaluation
Price Code: Gr. 6
22 pages
Identical to ISO 201474-1:2020

This document provides the terms and general requirements for the evaluation of the quality of nucleic acids as the analytes for multiplex molecular tests, which simultaneously identify two or more nucleic acid target sequences of interest. This document is applicable to all multiplex molecular methods used for examination using in vitro diagnostic (IVD) medical devices and laboratory developed tests (LDTs). It provides information for both qualitative and quantitative detection of nucleic acid target sequences. This document is intended as guidance for multiplex molecular assays that detect and/or quantify human nucleic acid target sequences or microbial pathogen nucleic acid target sequences from human clinical specimens. This document is applicable to any molecular in vitro diagnostic examination performed by medical laboratories. It is also intended to be used by laboratory customers, in vitro diagnostics developers and manufacturers, biobanks, institutions and commercial organizations performing biomedical research, and regulatory authorities. This document is not applicable to metagenomics.

ZWS ISO 21482:2007
Ironizing – Radiation warning - Supplementary
Price Code: Gr 7
28 pages
Identical to ISO 21898:2004

Specifies materials, construction and design requirements, type test, certification and making requirements for flexible intermediate bulk containers (FIBCs) intended to contain non-dangerous solid materials in powder, granular or paste form, and designed to be lifted from above by integral or detachable devices.

ZWS ISO 21527: Part 1:2008
Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds
Part 1:2008: Colony count technique in products with water activity greater than 0,95
Price Code: Gr 5
8 pages
Identical to ISO 21527-1:2008

Specifies materials, construction and design requirements, type test, certification and making requirements for flexible inter-mediate bulk containers (FIBCs) intended to contain non-dangerous solid materials in powder, granular or paste form, and designed to be lifted from above by integral or detachable devices.

Part 2:2008 Colony count technique in products with water activity less than or equal to 0,95
Price Code: Gr 5
9 pages
Identical to ISO 21527-2:2008

This part of ISO 21527 specifies a horizontal method for the enumeration of viable osmophilic yeasts and xerophilic moulds in products intended for human consumption or feeding of animals that have a water activity less than or equal to 0,95 (dry fruits, cakes, jams, dried meat, salted fish, grains, cereals and cereal products, flours, nuts, spices and condiments, etc. [Annex A]), by means of the colony count technique at 25 °C □ 1 °C (Reference [3]). This part of ISO 21527 does not apply to dehydrated products with water activity less than or equal to 0,60 (dehydrated cereals, oleaginous products, spices, leguminous plants, seeds, powders for instant drinks, dry products for domestic animals, etc.) and does not allow the enumeration of mould spores (Reference [3]). Neither the identification of fungal flora nor the examination of foods for mycotoxins lie within the scope of this part of ISO 21527. The method specified in this part of ISO 21527 is not suitable for enumeration of halophilic.
WARNING — It is essential that enumeration of moulds is carried out with the greatest care to protect the operator and to prevent contamination of the atmosphere with mould spores.

ZWS ISO 21528: Part 2:2017
Microbiology of the food chain- Horizontal method for the detection and enumeration of enterobacteriaceae
Part 2: Colony-count technique
Price Code: Gr. 6
14 pages
Identical to ISO 21528-2:2017

This document specifies a method for the enumeration of Enterobacteriaceae. It is applicable to products intended for human consumption and the feeding of animals, and environmental samples in the area of primary production, food production and food handling. This technique is intended to be used when the number of colonies sought is expected to be more than 100 per millilitre or per gram of the test sample. The most probable number (MPN) technique, as included in ISO 21528 1, is generally used when the

number sought is expected to be below 100 per millilitre or per gram of test sample.

ZWS ISO 21549: Part 4:2014
Health informatics - Patient healthcard data
Part 4: Extended clinical data
Price Code: Gr. 6
18 pages
Identical to ISO 21549-4:2014

This part of ISO 21549 is applicable to situations in which clinical data additional to the limited clinical data defined in ISO 21549 3 is recorded on or transported by patient healthcare data cards compliant with the physical dimensions of ID-1 cards defined by ISO/IEC 7810. This part of ISO 21549 specifies the basic structure of the data contained within the data object extended clinical data, but does not specify or mandate particular data sets for storage on devices. In order to facilitate interoperability, whenever an application is built for use in the healthcare domain in compliance with this part of ISO 21549, data items required for that application are drawn from the list of objects (some of which are extensible) as provided in Clause 5. These are used in conjunction with other data defined in other parts of this International Standard. The detailed functions and mechanisms of the following services are not within the scope of this part of ISO 21549, (although its structures can accommodate suitable data objects elsewhere specified).
—The encoding of free text data.
—Security functions and related services which are likely to be specified by users for data cards depending on their specific application, for example: confidentiality protection, data integrity protection, and authentication of persons and devices related to these functions.
—Access control services which may depend on active use of some data card classes such as microprocessor cards.
—The initialisation and issuing process (which begins the operating lifetime of an individual data card, and by which the data card is prepared for the data to be subsequently communicated to it according to this part of ISO 21549). The following topics are therefore beyond the scope of this part of ISO 21549:
—physical or logical solutions for the practical functioning of particular types of data cards;
—how the message is processed further ‘downstream’ of the interface between two systems;
—the form which data takes for use outside the data card, or the way in which such data are visibly represented on the data card or elsewhere.

ZWS ISO 21549: Part 5:2023
Health informatics -Patient healthcard data
Part 5: Identification data
Price Code: Gr. 6
8 pages
Identical to ISO 21549-5:2023

This document describes and defines the basic structure of the identification data objects held on healthcare data cards, but it does not specify particular data sets for storage on devices. This document does not apply to the detailed functions and mechanisms of the following services (although its structures can accommodate suitable data objects elsewhere specified):
—security functions and related services that are likely to be specified by users for data cards depending on their specific application, e.g. confidentiality protection, data integrity protection and authentication of persons and devices related to these functions;
—access control services;
—the initialization and issuing process (which begins the operating lifetime of an individual data card, and by which the data card is prepared for the data to be subsequently communicated to it according to this document). Therefore, this document does not cover:
—physical or logical solutions for the practical functioning of particular types of data card;
—the forms that data take for use outside the data card, or the way in which such data are visibly represented on the data card or elsewhere.

ZWS ISO 21549: Part 6:2008
Health informatics - Patient healthcard data
Part 6: Administrative data
Price Code: Gr. 6
5 pages
Identical to ISO 21549-6:2008

This part of ISO 21549 is applicable to situations in which administrative data are recorded on or transported by patient healthcards compliant with the physical dimensions of ID-1 cards defined by ISO/IEC 7810. This part of ISO 21549 specifies the basic structure of the data contained within the data object administrative data, but does not specify or mandate particular data sets for storage on devices. The detailed functions and mechanisms of the following services are not within the scope of this part of ISO 21549, although its structures can accommodate suitable data objects elsewhere specified:
- the encoding of free text data;
- security functions and related services that are likely to be specified by users for data cards depending on their specific application, e.g. confidentiality protection, data integrity protection, and authentication of persons and devices related to these functions;
- access control services that may depend on active use of some data card classes such as microprocessor cards;
- the initialization and issuing process (which begins the operating lifetime of an individual data card, and by which the data card is prepared for the data to be subsequently communicated to it according to this part of ISO 21549).

The following topics are therefore beyond the scope of this part of ISO 21549:
- physical or logical solutions for the practical functioning of particular types of data card;
- how the message is processed further downstream of the interface between two systems;
- the form which data take for use outside the data card, or the way in which such data are visibly represented on the data card or elsewhere.

ZWS ISO 21549: Part 7:2024
Health informatics-Patient healthcard data
Part 7: Medication data
Price Code: Gr. 7
42 pages
Identical to ISO 21549-7:2024

This document applies to situations in which such data is recorded on or transported by patient healthcards compliant with the physical dimensions of ID-1 cards defined by ISO/IEC 7810. This document specifies the basic structure of the data contained within the medication data object, but does not specify or mandate particular data sets for storage on devices. The purpose of this document is for cards to provide information to other health professionals and to the patient or its non-professional caregiver. It can also be used to carry a new prescription from the prescriber to the dispenser/pharmacy in the design of its sets. Medication data include the following four components:
—medication notes: additional information related to medication and the safe use of medicines by the patient such as medication history, sensitivities and allergies;
—medication prescriptions: to carry a new prescription from the prescriber to the dispenser/pharmacy;
—medication dispensed: the records of medications dispensed for the patient;
—medication references: pointers to other systems that contain information that makes up medication prescription and the authority to dispense.

The following topics are beyond the scope of this document:
—physical or logical solutions for the practical functioning of particular types of data cards;
—how the message is processed further “downstream” of the interface between two systems;
—the form which the data takes for use outside the data card, or the way in which such data is visibly represented on the data card or elsewhere.
NOTE: Not only does the definition of “medicinal products” differ from country to country, but also the same name can relate to entirely different products in some countries. Therefore, it is important to consider the safety of the patient when the card is used across borders.
This document describes and defines the Medication data objects used within or referenced by patient-held health data cards using UML, plain text and Abstract Syntax Notation (ASN.1).
This document does not describe nor define the common objects defined within ISO 21549-2.

ZWS ISO 21549: Part 8:2010
Health informatics — Patient healthcard data
Part 8: Links
Price Code: Gr. 6
9 pages
Identical to ISO 21549-8:2010

This part of ISO 21549 defines a way to facilitate access to distributed patient records and/or administrative information using healthcards. It defines the structure and elements of “links” typically stored in healthcards and representing references to individual patients' records as well as to subcomponents of them. Access control mechanisms, data protection mechanisms, access methods and other security services are outside the scope of this part of ISO 21549.

ZWS ISO 21649: 2009
Needle – Free injectors for medical use – Requirements and test methods
Price Code: Gr. 7
32 pages
Identical to ISO 21649: 2006

Applies to safety and performance and testing requirements for single-use and multiple-use neddle-free injection systems intended for human use in clinics and other medical settings and for personal use by patients.

ZWS ISO 21703: 2019
Surface active agents — Microbiology — Microbiological test methods for liquid hand dishwashing
Price Code: Gr. 6
19 pages
Identical to ISO 21703: 2019

This document provides microbiological test methods for enumeration and detection of aerobic mesophilic bacteria, detection of Escherichia coli and Pseudomonas aeruginosa in liquid hand dishwashing.

ZWS ISO 21795: Part 1:2021
Mine closure and reclamation planning.
Part 1: requirements
Price Code: Gr. 10
16 pages
Identical to ISO ISO 21795-1:2021.

This document specifies a framework and the processes involved in mine closure and reclamation planning for new and operating mines.

ZWS ISO 21795: Part 2:2021
Mine closure and reclamation planning.
Part 2: guidance
Price Code: Gr. 8
76 pages
Identical to ISO 21795-2:2021

This document provides guidance related to the necessary mine closure and reclamation planning activities for new and operating mines.

ZWS ISO/IEC 21878:2018:2018
Information technology- Security techniques -Security guidelines for design and implementation of virtualized servers
Price Code: Gr. 7
23 pages
Identical to ISO 21878:2018

This document specifies security guidelines for the design and implementation of VSs. Design considerations focusing on identifying and mitigating risks, and implementation recommendations with respect to typical VSs are covered in this document. This document is not applicable to: (see also 5.3.2 Exclusions)
—desktop, OS, network, and storage virtualization; and
—vendor attestation.
This document is intended to benefit any organization using and/or providing VSs.

ZWS ISO 21898:2004
Packaging – Flexible intermediate bulk containers (FIBCs) for non-dangerous goods
Price Code: Gr 7
28 pages
Identical to ISO 21898:2004

Specifies materials, construction and design requirements, type test, certification and making requirements for flexible intermediate bulk containers (FIBCs) intended to contain non-dangerous solid materials in powder, granular or paste form, and designed to be lifted from above by integral or detachable devices

ZWS ISO 21940: Part 11:2016
Mechanical vibration - Rotor balancing:
Part 11: Procedures and tolerances for rotors with rigid behaviour, including measurements on rotating shafts
Price Code: Gr 7
26 pages
Identical to ISO 21940-11:2016

This document establishes procedures and unbalance tolerances for balancing rotors with rigid behaviour. It specifies
a)the magnitude of the permissible residual unbalance,
b)the necessary number of correction planes,
c)the allocation of the permissible residual unbalance to the tolerance planes, and
d)how to account for errors in the balancing process.
NOTE: In ISO 21940 14, the assessment of balancing errors is considered in detail. Fundamentals of rotor balancing are contained in ISO 19499 which gives an introduction to balancing.
This document does not cover the balancing of rotors with flexible behaviour. Procedures and tolerances for rotors with flexible behaviour are dealt with in ISO 21940 12.

ZWS ISO/IEC 21972:2020
Information technology - Upper level ontology for smart city indicators
Price Code: Gr 7
33 pages
Identical to ISO 21972:2020

This document establishes general principles and gives guidelines for an indicator upper level ontology (IULO) for smart cities that enables the representation of indicator definitions and the data used to derive them. It includes:
— concepts (e.g., indicator, population, cardinality); and
— properties that relate concepts (e.g., cardinality_of, parameter_of_var).

ZWS ISO 22000:2018/ AMD 1:2024
Food safety management systems - Requirements for any organisation in the food chain
Price Code: Gr. 10
40 pages
Supercedes ZWS ISO 22000:2005

This document specifies requirements for a food safety management system (FSMS) to enable an organization that is directly or indirectly involved in the food chain:
a) to plan, implement, operate, maintain and update a FSMS providing products and services that are safe, in accordance with their intended use;
b) to demonstrate compliance with applicable statutory and regulatory food safety requirements;
c) to evaluate and assess mutually agreed customer food safety requirements and to demonstrate conformity with them;
d) to effectively communicate food safety issues to interested parties within the food chain;
e) to ensure that the organization conforms to its stated food safety policy;
f) to demonstrate conformity to relevant interested parties;
g) to seek certification or registration of its FSMS by an external organization, or make a self-assessment or self-declaration of conformity to this document.
All requirements of this document are generic and are intended to be applicable to all organizations in the food chain, regardless of size and complexity. Organizations that are directly or indirectly involved include, but are not limited to, feed producers, animal food producers, harvesters of wild plants and animals, farmers, producers of ingredients, food manufacturers, retailers, and organizations providing food services, catering services, cleaning and sanitation services, transportation, storage and distribution services, suppliers of equipment, cleaning and disinfectants, packaging materials and other food contact materials. This document allows any organization, including small and/or less developed organizations (e.g. a small farm, a small packer-distributor, a small retail or food service outlet) to implement externally- developed elements in their FSMS. Internal and/or external resources can be used to meet the requirements of this document.

ZWS ISO 22002: Part 1:2025
Prerequisite programmes on food safety
Part 1: Food Manufacturing
Price Code: Gr. 6
18 pages
Identical to ISO 22002-1:2025

This document specifies, in conjunction with ISO 22002-100, requirements for establishing, implementing and maintaining prerequisite programmes (PRPs) to control food safety hazards in food manufacturing. This document is applicable to all organizations, regardless of size or complexity. This document does not apply to other parts of the food supply chain. Exclusions to requirements can be supported by a sufficient justification that ensures that the exclusion does not adversely impact food safety.

ZWS ISO 22002: Part 2:2025
Prerequisite programmes on food safety
Part 2: Catering
Price Code: Gr.4
11 pages
Identical to ISO 22002-2:2025

This document specifies, in conjunction with ISO 22002-100, requirements for establishing, implementing and maintaining prerequisite programmes (PRPs) to control food safety hazards in catering services for direct consumer consumption or take away. The term “food services” is used synonymously with catering services. This document is applicable to restaurants, hotels, food trucks, vending machines, institutions, workplaces (school or factory cafeteria), on-board passenger services, where open exposed food activities (e.g. cooking, mixing, blending, preparation, reheating) occur on-site for direct consumer consumption or take-away. This includes minor processing activities at retail operations (e.g. slicing, portioning, reheating). This document is applicable to all organizations, regardless of size or complexity.
This document does not apply to off-site catering kitchens or industrial kitchens that produce food not offered for immediate consumption.
EXAMPLE: Off-site kitchens that produce foodstuffs that will be supplied to restaurant(s), hotel(s) or onboard catering services. ISO 22002-1 applies in this case.
This document does not apply to other parts of the food supply chain.
Exclusions to requirements can be supported by a sufficient justification that ensures that the exclusion does not adversely impact food safety.

ZWS ISO/TS 22002: Part 3:2011
Part 3: Farming
Price Code: Gr. 7
24 pages
Identical to ISO/TS 22002.3:2011

Specifies requirements and guidelines for the design, implementation and documentation of prerequisite programmes (PRPs) that maintain a hygienic environment and assist in controlling food safety hazards in the food chain.

ZWS ISO 22002: Part 4:2025
Prerequisite programmes on food safety
Part 4: Food packaging manufacturing
Price Code: Gr. 4
7 pages
Identical to ISO 22002-4:2025

This document specifies, in conjunction with ISO 22002-100, requirements for establishing, implementing and maintaining prerequisite programmes (PRPs) to control food safety hazards in the manufacture of food and feed packaging. This document is applicable to all organizations, regardless of size or complexity. This document does not apply to other parts of the food supply chain.
Exclusions to requirements can be supported by a sufficient justification that ensures that the exclusion does not adversely impact food safety.

ZWS ISO 22002: Part 5:2025
Prerequisite programmes on food safety
Part 5: Transport and storage
Price Code: Gr. 4
8 pages
Identical to ISO 22002-5:2025

This document specifies, in conjunction with ISO 22002-100, requirements for establishing, implementing and maintaining prerequisite programmes (PRPs) to control food safety hazards in

transport and storage in the food chain, including cross-docking and transshipment activities. This document is applicable to all organizations, regardless of size or complexity. This document does not apply to live animals except when intended for direct consumption (e.g. molluscs, crustaceans and live fish). This document does not apply to other parts of the food supply chain or in isolation.
Exclusions to requirements can be supported by a sufficient justification that ensures that the exclusion does not adversely impact food safety.

ZWS ISO 22002: Part 6:2025
Prerequisite programmes on food safety
Part 6: Feed and animal food production
Price Code: Gr. 4
6 pages
Identical to ISO 22002-6:2025

This document specifies, in conjunction with ISO 22002-100, requirements for establishing, implementing and maintaining prerequisite programmes (PRPs) to control feed safety hazards in feed and animal food, and materials intended for use in the production of feed and animal food. Feed safety hazards in this context relate to attributes that have a potential to affect adversely animal and/or human health. This document is applicable to all organizations, regardless of size or complexity. This document does not apply to other parts of the food supply chain. Exclusions to requirements can be supported by a sufficient justification that ensures that the exclusion does not adversely impact food safety.

ZWS ISO 22002: Part 7:2025
Prerequisite programmes on food safety
Part 7: Retail and wholesale
Price Code: Gr. 5
9 pages
Identical to ISO 22002-7:2025

This document specifies requirements for establishing, implementing and maintaining prerequisite programmes (PRPs) to control food safety hazards in the retail part of the food chain, including wholesalers, food banks and other organizations. This document is applicable to all organizations, regardless of size or complexity.
This document does not apply to other parts of the food supply chain. Exclusions to requirements can be supported by a sufficient justification that ensures that the exclusion does not adversely impact food safety.

ZWS ISO 22002: Part 100:2025
Prerequisite programmes on food safety
Part 100: Requirements for the food, feed and packaging supply chain
Price Code: Gr. 10
23 pages
Identical to ISO 22002-100:2025

This document specifies the common requirements for establishing, implementing and maintaining prerequisite programmes (PRPs) throughout the food, feed and packaging supply chain to assist in controlling food safety hazards with a food safety management system (FSMS). This document is applicable to all organizations, regardless of size or complexity, that are involved in activities across the food, feed and packaging supply chain and that wish to implement PRPs (see Figure 1). Exclusions to requirements can be supported by a sufficient justification that ensures that the exclusion does not adversely impact food safety.

ZWS ISO/TS 22003: Part 1:2022
Food safety
Part 1 – Requirements for bodies providing audit and certification of food safety management systems
Price Code: Gr 7
26 pages
Identical to ISO/TS 22003: Part 1:2022

This document specifies the requirements for the audit and certification of a food safety management system (FSMS) complying with the requirements given in ISO 22000 (or other specified FSMS requirements). It also provides the necessary information and confidence to customers about the way certification of their suppliers has been granted. Certification of FSMS is a third-party conformity assessment activity (as described in ISO/IEC 17000:2020, 4.3), and bodies performing this activity are third-party conformity assessment bodies.

ZWS ISO/TS 22003: Part 2:2022
Food safety
Part 2 – Requirements for bodies providing evaluation and certification of products, processes and services, including an audit of the food safety system
Price Code: Gr 7
26 pages
Identical to ISO/TS 22003: Part 2:2022

This document is supplemental to ISO/IEC 17065. It specifies the rules applicable for the audit of a food safety system (FSS) and certification of products, processes and services complying with requirements of a certification scheme that is based on the internationally accepted principles of food safety (e.g. CODEX General Principles of Food Hygiene[8]) and includes management system elements.

ZWS ISO 22004:2014
Food safety management systems – Guidance on the application of ISO 22000
Price Code: Gr 7
13 pages
Identical to ISO/TS 22004:2005

Provides generic guidance that can be applied in the use of ISO 22000.

ZWS ISO 22005:2008
Traceability in the feed and food chain – General principles and basic requirements for system design and implementation
Price Code: Gr 4
9 pages
Identical to ISO 22005:2007

This International Standard gives the principles and specifies basic requirements for the design and implementation of a feed and food traceability system. It can be applied by an organization operating at any step in the feed and food chain. It is intended to be flexible enough to allow feed organizations and food organizations to achieve identified objectives. The traceability system is a technical tool to assist an organization to conform with its defined objectives and is applicable when necessary to determine the history, or location of a product or its relevant components.

ZWS ISO 22006:2009
Quality management systems – Guidelines for the application of ISO 9001:2008 to crop production
Price Code: Gr .8
60 pages
Identical to ISO 22006:2009

Gives guidance to assist crop producers in the adoption of ISO 9001:2008 for crop production processes. The term crop production includes seasonal crops (such as grains, pulses, oilseeds, spices, fruit and vegetables) row planted crops that are cultivated, perennial crops that are manged over aperiod of time and wild crops tahta re not formally planted or managed. Horticultural crops provide an even broader range of types from annual to perennial fruits, vegetables and ornamental flowering plants to perennial shrubs and trees and root crops.

ZWS ISO 22096:2007
Condition monitoring and diagnostics of machines – Acoustic emission
Price Code: Gr .5
7 pages
Identical to ISO 22096:2007

This International Standard specifies the general principles required for the application of acoustic emission (AE) to condition monitoring and diagnostics of machinery operating under a range of conditions and environments. It is applicable to all machinery and associated components and covers structure-borne measurements only.

ZWS ISO 22160:2007
Milk and milk based drinks – Determination of alkaline phosphatase activity – Enzymatic Photo – activated system (EPAS) method.
Price Code: Gr 6
16 pages
Identical to ISO 22160:2007

Specifies a method for the determination of the alkaline phosphatase activity in pasteurized whole milk, semi skimmed milk, cream and flavoured milks using chemiluminescent (EPAS) method.

ZWS ISO/IEC 22237: Part 1:2021
Information technology — Data centre facilities and infrastructures
Part 1: General concepts
Price Code: Gr. 7
31 pages
Identical to ISO/IEC 22237-1:2021

This document:
a) describes the general principles for data centres upon which the requirements of the ISO/IEC 22237 series are based;
b) defines the common aspects of data centres including terminology, parameters and reference models (functional elements and their accommodation) addressing both the size and complexity of their intended purpose;
c) describes general aspects of the facilities and infrastructures required to support data centres;
d) specifies a classification system, based upon the key criteria of "availability", "security" and "energy-efficiency" over the planned lifetime of the data centre, for the provision of effective facilities and infrastructure;
e) details the issues to be addressed in a business risk and operating cost analysis enabling application of the classification of the data centre;
f) provides a reference to the operation and management of data centres.
The following topics are outside of the scope of the ISO/IEC 22237 series:
1) the selection of information technology and network telecommunications equipment, software and associated configuration issues are outside the scope of this International Standard;
2) quantitative analysis of overall service availability resulting from multi-site data centres;
3) safety and electromagnetic compatibility (EMC) requirements (covered by other standards and regulations. However, information given in this document can be of assistance in meeting these standards and regulations).

ZWS ISO/IEC 22237: Part 2:2018
Information technology — data centre facilities and infrastructures
Part 2: Building construction
Price Code: Gr. 6
25 pages
Identical to ISO/IEC 22237-2:2018

This document addresses the construction of buildings and other structures which provide accommodation for data centres based upon the criteria and classification for "physical security" within ISO/IEC TS 22237 1 in support of availability. This document specifies requirements and recommendations for the following:
a)location and site selection;
b)building construction;
c)building configuration;
d)fire protection;
e)quality construction measures.
Safety and electromagnetic compatibility (EMC) requirements are outside the scope of this document and are covered by other standards and regulations. However, information given in this document may be of assistance in meeting these standards and regulations.

ZWS ISO/IEC 22237: Part 3:2021
Information technology – Data centre facilities and infrastructures
Part 3: Power distribution
Price Code: Gr. 7
35 pages
Identical to ISO/IEC 22237-3:2021

This document addresses power supplies to, and power distribution within, data centres based upon the criteria and classifications for "availability", "physical security" and "energy efficiency enablement" within ISO/IEC 22237 1. This document specifies requirements and recommendations for the following:
a) power supplies to data centres;
b) power distribution systems to all equipment within data centres;
c) telecommunications infrastructure bonding;
d) lightning protection;
e) devices for the measurement of the power consumption and power quality characteristics at points along the power distribution system and their integration within management tools. Safety and electromagnetic compatibility (EMC) requirements are outside the scope of this document and are covered by other standards and regulations. However, information given in this document can be of assistance in meeting these standards and regulations. Conformance of data centres to the present document is covered in Clause 4. The use of the data centre stored energy or alternate sources to be used by the grid is not in the scope of this document and is for consideration in future specifications.

ZWS ISO/IEC 22237: Part 4:2021
Information technology – Data centre facilities and infrastructures
Part 4:2021: Environmental control
Price Code: Gr. 6
24 pages
Identical to ISO/IEC 22237-4:2021.

This document addresses environmental control within data centres based upon the criteria and classifications for "availability", "security" and "energy efficiency enablement" within ISO/IEC 22237-1.
This document specifies requirements and recommendations for the following:
a) temperature control;
b) fluid movement control;
c) relative humidity control;
d) particulate control;
e) vibration;
f) physical security of environmental control systems.

ZWS ISO/IEC 22237: Part 5:2018
Information technology — Data centre facilities and infrastructures
Part 5: Telecommunications cabling infrastructure
Price Code: Gr. 6
32 pages
Identical to ISO/IEC 22237-5:2018

This document addresses the wide range of telecommunications cabling infrastructures within data centres based upon the criteria and classifications for "availability" within ISO/IEC TS 22237 1.
This document specifies requirements and recommendations for the following:
a) information technology and network telecommunications cabling (e.g. SAN and LAN);
b) general information technology cabling to support the operation of the data centre;
c) telecommunications cabling to monitor and control, as appropriate, power distribution, environmental control and physical security of the data centre;
d) other building automation cabling;
e) pathways, spaces and enclosures for the telecommunications cabling infrastructures.
Safety and electromagnetic compatibility (EMC) requirements are outside the scope of this document and are covered by other standards and regulations. However, information given in this document may be of assistance in meeting these standards and regulations.

ZWS ISO/IEC 22237: Part 6:2024
Information technology — Data centre facilities and infrastructures
Part 6: Security systems
Price Code: Gr. 7
34 pages
Identical to 22237-6:2024

This document specifies requirements and recommendations concerning the physical security of data centres based on the criteria and classifications for "availability", "security" and "energy efficiency enablement" within ISO/IEC 22237-1. This document provides designations for the data centre spaces defined in ISO/IEC 22237-1. This document specifies requirements and recommendations for such data centre spaces, and the systems employed within those spaces, in relation to protection against:
a) unauthorized access addressing organizational and technological solutions;
b) intrusion;
c) internal fire events igniting within data centre spaces;
d) internal environmental events (other than fire) within the data centre spaces which would affect the defined level of protection;
e) external environmental events outside the data centre spaces which would affect the defined level of protection.
NOTE: Constructional requirements and recommendations are provided by reference to ISO/IEC 22237-2.
Safety and electromagnetic compatibility (EMC) requirements are outside the scope of this document and are covered by other standards and regulations. However, information given in this document can be of assistance in meeting these standards and regulations.
Conformance of data centres to the present document is covered in Clause 4.

ZWS ISO/IEC 22237: Part 7:2018
Information technology - Data centre facilities and infrastructures
Part 7: Management and operational information
Price Code: Gr. 7
40 pages
Identical to 22237-7:2018

This document specifies processes for the management and operation of data centres. The primary focus of this document is the operational processes necessary to deliver the expected level of resilience, availability, risk management, risk mitigation, capacity planning, security and energy efficiency. The secondary focus is on management processes to align the actual and future demands of users. Figure 2 shows an overview of related processes. The transition from planning and building to operation of a data centre is considered as part of the acceptance test process in Clause 6.
NOTE 1: Only processes specific for data centres are in the scope of this document. Business processes like people management, financial management, etc. are out of scope.
NOTE 2: Specific skill sets are required of those working in and operating a data centre.

ZWS ISO 22300:2021
Security and resilience — vocabulary
Price Code: Gr. 7
63 pages
Identical to ISO 22300:2021

This document defines terms used in security and resilience standards.

ZWS ISO 22301:2019/Amd 1:2024
Security and resilience – Business continuity management systems – Requirements
Price Code: Gr. 7
23 pages
Identical to ISO 22301:2019

This document specifies requirements to implement, maintain and improve a management system to protect against, reduce the likelihood of the occurrence of, prepare for, respond to and recover from disruptions when they arise. The requirements specified in this document are generic and intended to be applicable to all organizations, or parts thereof, regardless of type, size and nature of the organization. The extent of application of these requirements depends on the organization's operating environment and complexity. This document is applicable to all types and sizes of organizations that:
a) implement, maintain and improve a BCMS;
b) seek to ensure conformity with stated business continuity policy;
c) need to be able to continue to deliver products and services at an acceptable predefined capacity during a disruption;
d) seek to enhance their resilience through the effective application of the BCMS.
This document can be used to assess an organization's ability to meet its own business continuity needs and obligations.

ZWS ISO 22313:2020
Security and resilience — Business continuity management systems — Guidance on the use of ISO 22301
Price Code: Gr. 8
59 pages
Identical to ISO 22313:2020

This document gives guidance and recommendations for applying the requirements of the business continuity management system (BCMS) given in ISO 22301. The guidance and recommendations are based on good international practice.
This document is applicable to organizations that:
a) implement, maintain and improve a BCMS;
b) seek to ensure conformity with stated business continuity policy;
c) need to be able to continue to deliver products and services at an acceptable predefined capacity during a disruption;
d) seek to enhance their resilience through the effective application of the BCMS. The guidance and recommendations are applicable to all sizes and types of organizations, including large, medium and small organizations operating in industrial, commercial, public and not-for-profit sectors. The approach adopted depends on the organization's operating environment and complexity.

ZWS ISO 22316 :2017
Security and resilience — organizational resilience — principles and attributes
Price Code: Gr. 6
11 pages
Identical to ISO 22316:2017.

This document provides guidance to enhance organizational resilience for any size or type of organization. It is not specific to any industry or sector. This document can be applied throughout the life of an organization. This document does not promote uniformity in approach across all organizations, as specific objectives and initiatives are tailored to suit an individual organization's needs.

ZWS ISO/TS 22317 :2021
Security and resilience - business continuity management systems - guidelines for business impact analysis
Price Code: Gr. 7
37 pages
Identical to ISO TS 22317:2021.

This document gives guidelines for an organization to implement and maintain a formal and documented business impact analysis (BIA) process appropriate to its needs. It does not prescribe a uniform process for performing a BIA. This document is applicable to all organizations regardless of type, size and nature, whether in the private, public or not-for-profit sectors. The guidance can be adapted to the needs, objectives, resources and constraints of the organization.

ZWS ISO/TS 22318:2021
Security and resilience — business continuity management systems - Guidelines for supply chain continuity management
Price Code: Gr. 6
21 pages
Identical to ISO TS 22318:2021.

This document gives guidance on methods for understanding and extending the principles of business continuity embodied in ISO 22301 and ISO 22313 to the management of supplier relationships. It enables an organization to develop and document the strategy to be better prepared to manage supply chain continuity. This document is generic and applicable to all organizations. It is applicable to suppliers of products, services and resources, both upstream and downstream. Supply chain continuity management (SCCM) specifically considers the issues faced by an organization which relies on the continuity of supply of resources as well as the ability to continue delivery of its products and services. The objective of SCCM is to protect the organization's business activities from supply chain disruption.

ZWS ISO/TS 22319:2017
Security and resilience - Community resilience — Guidelines for planning the involvement of spontaneous volunteers
Price Code: Gr. 7
16 pages
Identical to ISO TS 22319:2017

This document provides guidelines for planning the involvement of spontaneous volunteers (SVs) in incident response and recovery. It is intended to help organizations to establish a plan to consider whether, how and when SVs can provide relief to a coordinated response and recovery for all identified hazards. It helps identify issues to ensure the plan is risk-based and can be shown to prioritize the safety of SVs, the public they seek to assist and incident response staff. This document is intended for use by organizations with responsibility for, or involvement in, part or all of the planning for working with SVs. It is applicable to all types and sizes of organizations that are involved in the planning for, and management of, SVs (e.g. local, regional, and national governments, statutory bodies, international and non-governmental organizations, businesses and public and community groups). The range of tasks performed by SVs can require only basic planning (e.g. for people who are first on the scene), or a plan that is more complex (e.g. for people who travel to the affected area to volunteer). Coordinating the participation of volunteers who are affiliated to voluntary or professional organizations to provide relief is not within the scope of this document.

ZWS ISO/TS 22320:2018
Security and resilience – Emergency management – Guidelines for incident management
Price Code: Gr. 7
20 pages
Identical to ISO TS 22320:2018
This document gives guidelines for incident management, including principles that communicate the value and explain the purpose of incident management, basic components of incident management including process and structure, which focus on roles and responsibilities, tasks and management of resources, and working together through joint direction and cooperation. This document is applicable to any organization involved in responding to incidents of any type and scale. This document is applicable to any organization with one organizational structure as well as for two or more organizations that choose to work together while continuing to use their own organizational structure or to use a combined organizational structure.

ZWS ISO/TS 22330:2018
Security and resilience – Business continuity management systems – Guidelines for people aspects of business continuity
Price Code: Gr. 7
39 pages
Identical to ISO/TS 22330:2018

This document gives guidelines for the planning and development of policies, strategies and procedures for the preparation and management of people affected by an incident. This includes:
—preparation through awareness, analysis of needs, and learning and development;
—coping with the immediate effects of the incident (respond);
—managing people during the period of disruption (recover);
—continuing to support the workforce after returning to business as usual (restore). The management of people relating to civil emergencies or other societal disruption is out of the scope of this document.

ZWS ISO/TS 22331:2018
Business continuity management systems – Guidelines for business continuity strategy
Price Code: Gr. 7
25 pages
Identical to ISO 22331:2022.

This document gives guidance for business continuity strategy determination and selection. It is applicable to all organizations regardless of type, size and nature, whether in the private, public or not-for-profit sectors. It is intended for use by those responsible for, or participating in, strategy determination and selection.

ZWS ISO 22367:2020
Medical laboratories — Application of risk management to medical laboratories
Price Code: Gr. 8
89 pages
Identical to ISO/TS 22367:2020

This document specifies a process for a medical laboratory to identify and manage the risks to patients, laboratory workers and service providers that are associated with medical laboratory examinations. The process includes identifying, estimating, evaluating, controlling and monitoring the risks. The requirements of this document are applicable to all aspects of the examinations and services of a medical laboratory, including the pre-examination and post-examination aspects, examinations, accurate transmission of test results into the electronic medical record and other technical and management processes described in ISO 15189. This document does not specify acceptable levels of risk. This document does not apply to risks from post-examination clinical decisions made by healthcare providers. This document does not apply to the management of risks affecting medical laboratory enterprises that are addressed by ISO 31000, such as business, economic, legal, and regulatory risks.

ZWS ISO 22390:2020
Timber structures — Laminated veneer lumber — Structural properties
Price Code: Gr. 5
10 pages
Identical to ISO 22390:2020

This document specifies requirements for establishing the characteristic properties of structural laminated veneer lumber (LVL), including 5th percentile strength values, stiffness characteristics and other performance characteristics, related to its end use as a structural product for dry use (service class 1). It is applicable to members used in flatwise or edgewise bending orientations. It does not cover the assessment of formaldehyde requirements, biological durability, fire performance or manufacturing, such as quality control and marking.

ZWS ISO/TS 22398:2013
Societal security – Guidelines for exercises
Price Code: Gr. 7
38 pages
Identical to ISO/TS 22398:2013

This International Standard recommends good practice and guidelines for an organization to plan, conduct, and improve its exercise projects which may be organized within an exercise programme. It is applicable to all organizations regardless of type, size or nature, whether private or public. The guidance can be adapted to the needs, objectives, resources, and constraints of the organization. It is intended for use by anyone with responsibility for ensuring the competence of the organization's personnel, particularly the leadership of the organization, and those responsible for managing exercise programmes and exercise projects.

ZWS ISO 22578: Part 2:2024
Graphical symbols — Safety colours and safety signs — Part 2: Measurement of photopic luminance of phosphorescent components used in a natural disaster safety way guidance system
Price Code: Gr. 7
6 pages
Identical to ISO/TS 22578-2:2024

This document specifies the laboratory test method for the measurement of photopic luminance of phosphorescent materials classified in accordance with ISO 22578.

ZWS ISO/IEC 22602:2023
Information technology - Learning, education and training - Competency models expressed in MLR
Price Code: Gr. 8
55 pages
Identical to ISO 22602:2023

This document specifies the description of entities of the real world dealing with competencies, competencies description, competencies evaluation, and of the operations done by these entities on competencies. This document provides a model to express all information required for the exchange and integration of heterogeneous descriptions of "competency" and of heterogeneous "competency objects":
—any item of discourse in the real world related to "competency" has a representation preserving its meaning in the proposed model;
—this representation allows comparison, hierarchical classification and aggregation of different items of discourse related to "competency". The concrete content of items of discourse in the real world related to "competency" is not specified in this document, which only deals with the formal expression of the discourse.

ZWS ISO/IEC 22624:2020
Information technology - Cloud computing -Taxonomy based data handling for cloud services
Price Code: Gr. 7
37 pages
Identical to ISO 22624:2020

This document:
—describes a framework for the structured expression of data-related policies and practices in the cloud computing environment, based on the data taxonomy in ISO/IEC 19944;
—provides guidelines on application of the taxonomy for handling of data based on data subcategory and classification;
—covers expression of data-related policies and practices including, but not limited to data geolocation, cross border flow of data, data access and data portability, data use, data management, and data governance;
—describes how the framework can be used in codes of conduct for practices regarding data at rest and in transit, including cross border data transfer, as well as remote access to data;
—provides use cases for data handling challenges, i.e. control, access and location of data according to ISO/IEC 19944 data categories.
This document is applicable primarily to cloud service providers, cloud service customers (CSCs) and cloud service users, but also to any person or organization involved in legal, policy, technical or other implications of taxonomy-based data management in cloud services.

ZWS ISO 22662:2009
Milk and milk products – Determination of lactose content by high-performance liquid chromatograph (Reference method)
Price Code: Gr. 4
10 pages
Identical to ISO 22662:2007

Specifies the reference method for the determination of lactose content of raw milk, heat-treated milks , dried milk and raw and pasteurized cream.

ZWS ISO/TS 22690:2021
Genomics informatics - Reliability assessment criteria for high-throughput gene-expression data
Price Code: Gr. 5
11 pages
Identical to ISO/TS 22690:2021

This document specifies reliability assessment criteria for high-throughput gene-expression data. It is applicable to assessing the accuracy, reproducibility, and comparability of gene-expression data that are generated from microarray, next-generation sequencing, and other forms of high-throughput technologies. This document identifies the quality-related data for the process of the next-generation sequencing of RNA (RNA-seq). The sequencing platform covered by this document is limited to short-read sequencers. The use of RNA-seq for mutation detection and virus identification is outside of the scope of this document. This document is applicable to human health associated species such as human, cell lines, and preclinical animals. Other biological species are outside the scope of this document. From a biological point of view, expression profiles of all genetic sequences including genes, transcripts, isoforms, exons, and junctions are within the scope of this document

ZWS ISO/TS 22692:2020
Genomics informatics — Quality control metrics for DNA sequencing
Price Code: Gr. 6
16 pages
Identical to ISO/TS 22692:2020
This document identifies quality metrics for the detection of DNA variants using next generation sequencing (NGS) technology. It also defines the data types, relationships, optionality, cardinalities and terminology bindings of the data. This document provides a basis for sharing and for the application of “high quality” genomic data and contributes to the realization of the precision medicine and the development of relevant industries. This document is intended to serve as a catalogue of sequencing data elements used to address quality metrics for various clinical, industrial and commercial applications. The exchange of these data allows researchers, commercial entities, and regulatory bodies to assess for the purpose of selective utilization of the data by setting application-specific quality criteria. This document is not intended for
—sequencing methods other than NGS, such as the Sanger sequencing,
—targets other than genome, such as transcriptome or proteome, or
—specimens of species other than humans.

ZWS ISO/ TS 22693:2021
Genomics informatics - Structured clinical gene fusion report in electronic health records
Price Code: Gr. 6
23 pages
Identical to ISO/TS 22693:2021

The document defines the data elements and their necessary metadata to implement a structured clinical gene fusion report whose data are generated by next generation sequencing technologies. This document
—describes the reporting guideline for RNA sequencing approaches focusing on detecting novel and known fusion partners,
—defines the required data fields and their metadata for a structured clinical gene fusion report,
—defines the optional data fields and their metadata,
—covers the fusion gene from human specimen using whole transcriptome sequencing by next generation sequencing technologies for clinical practice and translational research,
—does not cover the fusion gene detection using DNA sequencing methods,
—does not cover the basic research and other scientific areas,
—does not cover the other biological species,
—does not cover the Sanger sequencing methods, and
—does not cover the other structural variations.
This document only defines the data elements and their metadata for the structured clinical sequencing report in electronic health records. Therefore, its layout can be designed based on the institutional decision if all elements are included as in this document.

ZWS ISO 22715:2006
Cosmetics - Packaging and labelling
Price Code: Gr. 4
6 pages
Identical to ISO 22715:2006

This International Standard specifies requirements for packaging and labelling of all cosmetic products as defined according to national regulations or practices intended for sale or free distribution. National regulations can, on several points, be more strict than this International Standard. This International Standard is intended for use on cosmetics.
NOTE: For packaging and labelling of toothpastes and oral rinses, see also ISO 11609 [5] and ISO 16408 [6].

ZWS ISO 22716:2007
Cosmetics – Good manufacturing practices (GMP) – Guidelines on good manufacturing practices
Price Code: Gr. 6
21 pages
Identical to ISO 22716:2007

This International Standard gives guidelines for the production, control, storage and shipment of cosmetic products. These guidelines cover the quality aspects of the product, but as a whole do not cover safety aspects for the personnel engaged in the plant, nor do they cover aspects of protection of the environment. Safety and environmental aspects are inherent responsibilities of the company and could be governed by local legislation and regulation.
These guidelines are not applicable to research and development activities and distribution of finished products.

ZWS ISO 22857:2013
Health informatics - Guidelines on data protection to facilitate transborder flows of personal health data
Price Code:Gr. 8
61 pages
Identical to ISO 22857:2013

This International Standard provides guidance on data protection requirements to facilitate the transfer of personal health data across national or jurisdictional borders. It does not require the harmonization of existing national or jurisdictional standards, legislation or regulations. It is normative only in respect of international or trans-jurisdictional exchange of personal health data. However it can be informative with respect to the protection of health information within national/jurisdictional boundaries and provide assistance to national or jurisdictional bodies involved in the development and implementation of data protection principles. This International Standard covers both the data protection principles that apply to

international or trans-jurisdictional transfers and the security policy which an organization adopts to ensure compliance with those principles. Where a multilateral treaty between a number of countries has been agreed (e.g. the EU Data Protection Directive), the terms of that treaty will take precedence. This International Standard aims to facilitate international and trans-jurisdictional health-related applications involving the transfer of personal health data. It seeks to provide the means by which health data relating to data subjects, such as patients, will be adequately protected when sent to, and processed in, another country/jurisdiction. This International Standard does not provide definitive legal advice but comprises guidance. When applying the guidance to a particular application, legal advice appropriate to that application can be sought.
National privacy and data protection requirements vary substantially and can change relatively quickly. Whereas this International Standard in general encompasses the more stringent of international and national requirements it nevertheless comprises a minimum. Some countries/jurisdictions may have some more stringent and particular requirements.

ZWS ISO 22870:2006
Point-of-care testing (POCT) – Requirements for quality and competence
Price Code:Gr. 8
11 pages
Identical to ISO 22870:2006

Gives specific requirements applicable to point-of-care testing and is intended to be used in conjunction with ISO 15189.The requirements of this international standadrd apply when POCT is carried out in hospital , clinic and by a healthcare organization providing ambulatory care.It can be applied to transcutaneous measurements the analysis of expired air and in *vivo* monitoring of physiological parameters.

ZWS ISO 22886:2020
Healthcare organization management – Vocabulary
Price Code:Gr. 6
12 pages
Identical to ISO 22886:2020

This document defines terms used in healthcare organization management.

ZWS ISO 22935:2009
Milk and milk products – Sensory analysis
Part 1: General guidance for the recruitment, selection, training and monitoring of assessors
Price Code: Gr. 6
19 pages
Identical to ISO 22935.1:2009

Gives general guidance for the recruitment,selection, training and monitoring of assessors for sensory analysis of milk and milk products.It supplements the information given in ISO 8586.1 and parts of ISO 8586.2 that deal with expert assessors.

Part 2: Recommendations methods for sensory evaluation
Price Code: Gr 6
23 pages
Specifies recommended methods for the sensory evaluation of specific milk and milk products.It specifies criteria for the sampling and preparation of samples and the assessment of the samples.

Part 3: Guidance on a method for evaluation of compliance with products specifications for sensory properties by scoring
Price Code: Gr 3
7 pages
Identical to ISO 22925.3:2009

Gives guidance on a general method for evaluation of compliance with product specifications for sensory properties based on sensory scoring and the use of a common nomenclature of terms.

ZWS ISO/IEC 22989:2022
Information technology – Artificial intelligence – Artificial intelligence concepts and terminology
Price Code: Gr. 8
61 pages
Identical to ISO ISO/IEC 22989:2022

This document establishes terminology for AI and describes concepts in the field of AI. This document can be used in the development of other standards and in support of communications among diverse, interested parties or stakeholders. This document is applicable to all types of organizations (e.g. commercial enterprises, government agencies, not-for-profit organizations).

ZWS ISO 22991:2004
Gas cylinders - Transportable refillable welded steel cylinders for liquefied petroleum gas (LPG) - Design and construction
Price Code: Gr. 7
29 pages
Identical to ISO 22991:2004

This International Standard specifies minimum requirements concerning material, design, construction and workmanship, procedure and test at manufacture of transportable refillable welded steel liquefied petroleum gas (LPG) cylinders of water capacity up to and including 150 l, exposed to ambient temperatures.

ZWS ISO 23058:2006
Milk and milk products – Ovine and caprine rennets – determination of total milk – Clotting activity
Price Code: Gr 5
13 pages
Identical to ISO 23058:2006

Specifies a method for the determination of the total milk clotting activity of an ovine or caprine rennet, including rennet paste, containing only chymosin and pepsin as the active coagulating enzymes on a standard milk susbtrate prepared using a calcium chloride solution of 0,5 per litre (pH 6,5).

ZWS ISO 23088:2020
Gas cylinders — Periodic inspection and testing of welded steel pressure drums — Capacities up to 1 000 L
Price Code: Gr. 6
19 pages
Identical to ISO 23088:2020

This document specifies the requirements for periodic inspection and testing of welded steel transportable pressure drums of water capacity from 150 l up to 1 000 l and up to 300 bar test pressure intended for compressed and liquefied gases.

ZWS ISO/IEC/TS 23167:2020
Information technology - Cloud computing - Common technologies and techniques
Price Code: Gr. 8
56 pages
Identical to ISO/IEC/TS 23167:2020

This document provides a description of a set of common technologies and techniques used in conjunction with cloud computing. These include:
— virtual machines (VMs) and hypervisors;
—containers and container management systems (CMSs);
—serverless computing;
—microservices architecture;
—automation;
—platform as a service systems and architecture;
—storage services;
—security, scalability and networking as applied to the above cloud computing technologies.

ZWS ISO/IEC TR 23187:2020
Information technology — Cloud computing — Interacting with Cloud service partners (CSNs)
Price Code: Gr. 7
36 pages
Identical to ISO/IEC TR 23187:2020

This document provides an overview of and guidance on interactions between cloud service partners (CSNs), specifically cloud service brokers, cloud service developers and cloud auditors, and other cloud service roles. In addition, this document describes how cloud service agreements (CSAs) and cloud service level agreements (cloud SLAs) can be used to address those interactions, including the following:

- definition of terms and concepts, and provision of an overview for interactions between CSNs and CSCs and CSPs;
- description of types of CSN interactions;
- description of interactions between CSNs and CSCs;
- description of interactions between CSNs and CSPs;
- description of elements of CSAs and Cloud SLAs for CSN interactions, both with CSPs and with CSCs.

ZWS ISO 23409:2011
Male condoms – Requirements and test methods for condoms made from synthetic materials
Price Code: Gr. 7
44 pages
Identical to ISO 23409:2011

Specifies the minimum requirements and the test methods applicable to male condoms produced from synthetic materials or blends of synthetic materials and natural rubber latex which are used for contraceptive purposes and to aid in the prevention of sexually transmitted infections.

ZWS ISO 23590:2020
Household biogas system requirements: design, installation, operation, maintenance and safety
Price Code: Gr 6
13 pages
Identical to ISO 23590:2020

This document covers the requirements for the design, installation, operation, maintenance and the safety of Household Biogas Systems (HBSs), producing biogas in an amount equivalent to an installation capacity of less than 100 MWh per year. The document applies to HBSs comprising of pipeline and equipment with pressure levels of less than 5 kPa. Any equipment or appliances connected to an HBS or utilizing the biogas energy of an HBS are not a part of the scope of this document.

ZWS ISO 23601:2020
Safety identification — Escape and evacuation plan signs
Price Code: Gr. 6
13 pages
Identical to ISO 23601:2020

This document establishes design principles for displayed escape plans that contain information relevant to fire safety, escape, evacuation and rescue of the facility's occupants. These plans may also be used by intervention forces in case of emergency. These plans are intended to be displayed as signs in public areas and workplaces. This document is not intended to cover the plans to be used by external safety services nor detailed professional technical drawings for use by specialists.

ZWS ISO 23640:2012
Invitro diagnostic medical devices – Evaluation of stability of Invitro diagnostic reagents
Price Code: Gr. 4
7 pages
Identical to ISO 23640:2011

Applicable to the stability evaluation of in vitro diagnostic medical devices, including reagents, calibrators, control materials, diluents, buffers and reagent kits hereinafter called IVD reagents. This international standard can also be applied to specimen collection devices that contain substances used to preserve samples or to initiate reactions for further processing of the sample in the collection device.

ZWS ISO 23876:2022
Gas cylinders - Cylinders and tubes of composite construction - Acoustic emission examination (AT) for periodic inspection and testing
Price Code: Gr. 8
16 pages
Identical to ISO 23876:2022

This document specifies the use of acoustic emission examination (AT) during periodic inspection and testing of hoop wrapped (Type 2) and fully wrapped (Types 3 and 4) composite transportable gas cylinders and tubes of water capacity up to 3 000 l, with aluminium-alloy, steel or non-metallic liner or of linerless construction (Type 5), intended for compressed and liquefied gases under pressure. It is applicable to only the verification of the composite material. Additional inspection such as internal visual inspection of the liner does not apply to this document (see ISO 11623).
NOTE: Unless noted by exception, the use of the word “cylinder” in this document refers to both cylinders and tubes.

ZWS ISO/IEC 23894:2023
Information technology - Artificial intelligence -Guidance on risk management
Price Code: Gr. 7
27 pages
Identical to ISO/IEC 23894:2023

This document provides guidance on how organizations that develop, produce, deploy or use products, systems and services that utilize artificial intelligence (AI) can manage risk specifically related to AI. The guidance also aims to assist organizations to integrate risk management into their AI-related activities and functions. It moreover describes processes for the effective implementation and integration of AI risk management. The application of this guidance can be customized to any organization and its context.

ZWS ISO 23907:2012
Sharps injury protection – Requirements and test methods – Sharps containers
Price Code: Gr. 4
10 pages
Identical to ISO 23907:2012

Specifies requirements for single-use sharps containers intended to hold potentially hazardous sharpsmedical waste with or without sharps protection features e.g. scalpel blades, trocars, hypodermic needles and syringes.

ZWS ISO 23908:2011
Sharps injury protection – Requirements and test methods – Sharps protection features for single-use hypodermic needles, introducers for catheters and needles used for blood sampling
Price Code:Gr. 4
11 pages
Identical to ISO 23908:2011

Gives requirements and test methods for evaluating the performance parameters of sharps injury protection features,whether active or passive in design for medical devices containg (sharp) hypodermic needles for single use introducers for catheters and lancets and other needles used in blood sampling.

ZWS ISO/IEC 24091:2019
Information technology - Power efficiency measurement specification for data center storage
Price Code:Gr. 8
76 pages
Identical to ISO 24091:2019

This document describes a standardized method to assess the energy efficiency of commercial storage products in both active and idle states of operation. A taxonomy is defined that classifies storage products in terms of operational profiles and supported features. Test definition and execution rules for measuring the power efficiency of each taxonomy category are described; these include test sequence, test configuration, instrumentation, benchmark driver, IO profiles, measurement interval, and metric stability assessment. Qualitative heuristic tests are defined to verify the existence of several capacity optimization methods. Resulting power efficiency metrics are defined as ratios of idle capacity or active operations during a selected stable measurement interval to the average measured power.

ZWS ISO 24165: Part 1:2025
Digital token identifier (DTI) - Registration, assignment and structure
Part 1: Method for registration and assignment
Price Code:Gr. 5
8 pages
Identical to ISO 24165-1:2025

This document defines the assignment and generation of a random, unique, fixed-length identifier for digital tokens in response to a request for registration that conforms to specified application guidelines (see also ISO 24165-2).

ZWS ISO 24165: Part 2:2025
Digital token identifier (DTI) - Registration, assignment and structure
Part 2: Data elements for registration
Price Code:Gr. 6
19 pages
Identical to ISO 24165-2:2025

This document defines the data elements included in the registry record and used to establish the 1:1 relationship between a digital token and the identifier assigned according to the method in ISO 24165-1.

ZWS ISO TS 24178:2021
Human Resources Management – Organisational culture metrics cluster
Price Code: Gr 5
17 pages
Identical to ISO 24178:2021
This document describes the elements of organizational culture and provides the formula for comparable measures for internal and external reporting. This document also highlights issues that need to be considered when interpreting the organizational culture data, especially when deciding on appropriate interventions internally and when reporting these to external stakeholders (e.g. regulators, investors).

ZWS ISO TS 24179:2020
Human Resources Management – Occupational health and safety metrics
Price Code: Gr. 5
10 pages
Identical to ISO 24179:2020

This document describes the elements of organizational health, safety and well-being. This document provides the formula for comparable measures for internal and external reporting. This document also highlights issues that need to be considered when interpreting the compliance data, especially when deciding on the appropriate intervention internally and when reporting these to external stakeholders (e.g. regulators, investors).

ZWS ISO 24266:2020
Footwear - Test methods for whole shoe - Flexing durability
Price Code: Gr.6
11 pages
Identical to ISO 24266:2020

This document specifies two test methods for the determination of the flexing durability of whole shoes. The two methods might not give comparable results.
NOTE: The selected test method depends on agreement between relative parties who use this test method or product standards which reference this test method. These methods are not applicable to the whole shoes with heel height more than 50 mm, or the thickness of flexing area of the soles more than 25 mm, or flexing angle less than 45° according to ISO 17707:2005, Clause 6.

ZWS ISO 24267:2020
Footwear - Determination of coefficient of friction for footwear and sole components
Price Code: Gr.5
8 pages
Identical to ISO 24267:2020

This document provides a method for determining the coefficient of friction between footwear and floorings under conditions simulating those experienced in the phases of a typical walking step when slip is most likely to occur. The method is applicable to all types of footwear and footwear components, outsole units, heel top pieces (top lifts) and sheet soling materials, excepting PPE footwear (Personal Protective Equipment) and special purpose footwear containing spikes, metal studs or similar.

ZWS ISO 24294:2021
Timber — Round and sawn timber — Vocabulary
Price Code: Gr. 8
57 pages
Identical to ISO 24294:2021

This document defines terms related to round and sawn timber. It applies to identification of a tree and its components, stages of processing in round and sawn forms, and timber grading, dimensions,

anatomical structure, features, moisture content and conditions relating to stain, fungal and insect attack. It does not apply to terms related to strength properties of wood, engineered timber products or timber structures.

ZWS ISO 24323:2023
Timber structures — Design method for vibrational serviceability of timber floors
Price Code: Gr.6
15 pages
Identical to ISO 24323:2023

The design method provided in this document addresses vibration induced by walking action of occupants and covers the following timber floor systems:
a) Light frame floors built with timber joists spaced at a distance of no more than 610 mm with a layer of structural wood-based subfloor that is connected to the joists using mechanical fasteners or adhesive. The area density of a bare light frame floors without a screed (topping) and ceiling is not greater than 25 kg/m2. Figure 1 shows such a light frame floor.
b) Mass timber floors built with mass timber panels such as cross laminated timber (CLT).
This document consists of three elements:
a) a baseline vibrational serviceability design criterion for timber floors using fundamental natural frequency and 1 kN static point load deflection as the design parameters including two types of design criteria, coupled and decoupled criteria;
b) equations for calculating the design parameters;
c) guidelines for the design values of the physical and mechanical properties of floor components.
The design method is based on the assumption that the floor system has a single span and simple support conditions.

ZWS ISO 24333:2009
Cereals and cereal products — Sampling
Price Code: Gr.7
28 pages
Identical to ISO 24333:2009
Replaces ISO 13690:1999
Replaces ISO 2170:1998

This International Standard specifies requirements for the dynamic or static sampling, by manual or mechanical means, of cereals and cereal products, for assessment of their quality and condition. It is applicable to sampling for the determination of heterogeneously distributed contaminants, undesirable substances, and parameters usually homogeneously distributed like those used to assess quality or compliance with specification. It can be used to determine insects in a grain lot.
NOTE 1: Other methods, e.g. trapping whilst grain is in storage, are more suitable to assess pest populations.
It is applicable to sampling for assessment of the quality and condition of lots of genetically modified organisms (GMO) but is inappropriate for the determination of the presence of adventitious genetically modified material in non-GM product.
It is not applicable to seed grain.
NOTE 2: The sampling of seed grain is governed by the rules established by the ISTA (International Seed Testing Association).
NOTE 3: At the time of publication, there is no study to support the inclusion of the sampling of non-GM product in order to determine adventitious GM presence within the scope of this International Standard.

ZWS ISO 24366:2021
Financial services — Financial services — Natural person identifier (NPI)
Price Code: Gr.5
11 pages
Identical to ISO 24366:2021

This document specifies a machine-readable, unambiguous natural person identifier (NPI) and the relevant reference data to uniquely identify the natural person relevant to any financial transaction rather than the personal identifying information.

ZWS ISO 24431:2016
Gas cylinders - Seamless, welded and composite cylinders for compressed and liquefied gases (excluding acetylene) - Inspection at time of filling
Price Code: Gr. 6
14 pages
Identical to ISO 24431:2016

This International Standard specifies the inspection requirements at the time of filling, and applies to seamless or welded transportable gas cylinders made of steel or aluminium-alloy (Type 1), and for composite transportable gas cylinders (Types 2 to 5 inclusive) for liquefied or compressed gases of a water capacity up to 150 l. It may be applicable to cylinders and tubes with a water capacity between 150 l and 450 l, provided they are inspected and filled as individual cylinders and tubes. This International Standard does not apply to acetylene cylinders, bundles of cylinders, tubes, multiple-element gas container (MEGCs) or battery vehicles. This International Standard may also be applicable to LPG. For specific LPG applications, refer to ISO 10691.
For cylinders manifolded in bundles, refer to ISO 11755.

ZWS ISO 24510:2024
Activities relating to drinking water and wastewater services - Guidelines for the assessment and for the improvement of the service to users
Price Code: Gr 8
49 pages
Identical to ISO 24510:2024

This document specifies the elements of drinking water and wastewater services of relevance and interest to users. It also provides guidance on how to identify users' needs and expectations and how to assess whether these are being met.
The following are within the scope of this document:
—the definition of a language common to the different stakeholders;
—the definition of key elements and characteristics of the service to users;
—the objectives for the service with respect to users' needs and expectations;
—guidelines for satisfying users' needs and expectations;
—assessment criteria for service to users;
—introduction to performance indicators;
—examples of performance indicators.
The following are outside the scope of this document:
—methods of design and construction of drinking water and wastewater systems;
—the regulating management structure and methodology of operation and management of activities relating to drinking water and wastewater services, including contracting;
—topics relating to the system inside buildings.

ZWS ISO 24511:2024
Activities relating to drinking water and wastewater services — Guidelines for the management of wastewater utilities and for the assessment of wastewater services
Price Code: Gr. 8
57 pages
Identical to ISO 24511:2024

This document provides guidelines for the management of wastewater utilities and the assessment of wastewater services.
This document is applicable to publicly and privately owned and operated wastewater utilities but does not favour any particular ownership or operational model.
NOTE 1: Wastewater is always generated when water is used or consumed. Accordingly, sources of wastewater can be residential, industrial, commercial or institutional. Collected storm water or (melted) snow can also be considered as wastewater, as it often carries contaminants and pathogens picked up from air or ground surfaces on its way to a collection system. In certain circumstances, especially in undeveloped areas, sanitary waste is collected in an undiluted form. This document addresses wastewater systems in their entirety and is applicable to systems at any level of development (e.g. pit latrines, on-site systems, networks, treatment facilities).
The following are within the scope of this document:
—the definition of a language common to different stakeholders;
—objectives for the wastewater utility;
—guidelines for the management of wastewater utilities;
—service assessment criteria and related examples of performance indicators, all without setting any target values or thresholds.
The following are outside the scope of this document:
—methods of design and construction of wastewater systems;
—regulation of the management structure and the methodology of wastewater service activities of operation and management;
—regulation of the content of contracts or subcontracts;
—topics related to the systems inside buildings, between the point-of-discharge and the point-of-collection.

ZWS ISO 24512:2024
Activities relating to drinking water and wastewater services — Guidelines for the management of drinking water utilities and for the assessment of drinking water services
Price Code: Gr. 8
50 pages
Identical to ISO 24512:2024

Provides guidelines for the management of drinking water utilities and for the assessment of drinking water services.It is applicable to publicly and privately owned and operated water utilities.It does not favour any particular ownership or operating model.

ZWS ISO 24516:2016
Guidelines for the management of assets of water supply and waste water systems
Part 1: Drinking water distribution networks
Price Code: Gr. 7
47 pages
Identical to ISO 24516.1:2016

The standard specifies guidelines for technical aspects, tools and good practices for the management of assets of drinking water networks to maintain value from existing assets.

ZWS ISO 24518:2016
Activities relating to drinking water and wastewater services – Crisis management of utilities
Price Code: Gr. 6
23 pages
Identical to ISO 24518:2015

Provides general guidance to water utilities to develop and implement a crisis management system.

ZWS ISO 24521:2016
Activities relating to drinking water and wastewater services – guidelines for the management of basic on-site domestic wastewater services
Price Code: Gr. 8
58 pages
Identical to ISO 24521:2016

Provides guidance for the management of basic on-site domestic wastewater services, using appropriate technologies in their entirety at any level of development.

ZWS ISO/IEC 24773: Part 1:2019
Software and systems engineering – Certification of software and systems engineering professionals
Part 1:2019: General requirements
Price Code: Gr. 6
11 pages
Identical to ISO/IEC 24773-1:2019

This document is part one of the ISO/IEC 24773 series. It contains the requirements which will be common to all other parts of the ISO/IEC 24773 series, for certifications (schemes and bodies) in the domain of software and systems engineering.

ZWS ISO/IEC 24773: Part 2:2024
Software and systems engineering — Certification of software and systems engineering professionals
Part 2: Guidance regarding description of knowledge, skills, and competencies contained in schemes
Price Code: Gr. 7
23 pages
Identical to ISO/IEC 24773-2:2024

This document contains guidance for certification that can be used by certification or qualification bodies regarding the description of knowledge, skill and competence within their particular schemes based on ISO/IEC 24773-1.

ZWS ISO/IEC 24773: Part 4:2023
Software and systems engineering - Certification of software and systems engineering professionals
Part 4:2023: Software engineering
Price Code: Gr. 6
14 pages
Identical to ISO/IEC 24773-4:2023

This document elaborates requirements and recommendations for certifications schemes based on ISO/IEC 24773-1, which are specific to the domain of software engineering.

ZWS ISO/IEC 25021:2012
Systems and software engineering - Systems and software quality requirements and evaluation (square) - Quality measure elements
Price Code: Gr. 7
37 pages
Identical to ISO/IEC 25021:2012

This International Standard contains the following information:
•Requirements for defining QMEs as part of the specification of the product quality requirements with examples (see 6.2 Tables 1 and 2);
NOTE: Product quality includes system quality, software product quality, data quality and eventually system service quality.
•An initial set of QMEs, as examples (see Annex A Table A.1);

•A guideline for defining and quantifying the property of the product (target entity) for QMEs (see Annex B)
This document is intended for, but not limited to, developers, acquirers and independent evaluators of products, particularly those responsible for defining product quality requirements and for product evaluation. This International Standard is applicable when defining the QMEs to be used to implement quality measures such as those specified in ISO/IEC 25022, ISO/IEC 25023 and ISO/IEC 25024.

ZWS ISO/IEC 25025:2021
Information technology — Systems and software Quality Requirements and Evaluation (SQuaRE) — Measurement of IT service quality
Price Code: Gr. 7
24 pages
Identical to ISO/IEC 25025:2021

This document defines quality measures useful for requirements and evaluation of IT service quality in terms of characteristics and sub-characteristics defined in ISO/IEC TS 25011. This document contains a basic set of quality measures for each characteristic and sub-characteristic. This document does not assign ranges of values of the quality measures to rated levels or to grades of compliance. Such values are defined based on the nature of the IT service, and so depends on factors such as category of the IT service or users' needs. Some attributes can have a desirable range of values, which does not depend on specific user needs but generic factors, for example, service downtime. This document includes, in Annex A, considerations for the selection and application of quality measures. The quality measures in this document are primarily intended to be used for quality evaluation and improvement of IT services during or after the development life cycle. The main users of this document are people carrying out quality requirements specification and evaluation activities for IT services as part of the following:
—development: including requirements analysis, design, implementation, testing and deployment during the development life cycle;
—quality management: monitoring activities of quality assurance and performing quality control of an IT service;
—supply: making a contract with the user for supplying an IT service under the terms of a contract;
—acquisition: including IT service selection, when acquiring or procuring an IT service from a service provider;
—maintenance: improvement of an IT service based on quality measurement. The relationship of this document to domain-specific IT service quality model and its precedence over this document is determined by the user in a specific context of use.

ZWS ISO/IEC 25045:2010
Systems and software engineering - Systems and software Quality Requirements and Evaluation (SQuaRE) - Evaluation module for recoverability
Price Code: Gr. 7
36 pages
Identical to ISO/IEC 25045:2010

This International Standard is one of the SQuaRE series of International Standards, which contains general requirements for specification and evaluation of systems and software quality and clarifies the associated general concepts. SQuaRE provides a framework for evaluating the quality of software products and states the requirements for methods of software product measurement and evaluation. This International Standard uses a methodology involving two types of evaluation for recoverability. One part of the method makes use of the disturbance injection methodology and a list of disturbances based on common categories of operational faults and events to evaluate the quality measure of resiliency. The second quality measure is based on a set of questions that is defined for each disturbance to evaluate the quality measure of autonomic recovery index by assessing how well the system detects, analyses, and resolves the disturbance without human intervention. This International Standard is applicable to information systems executing transactions in a system supporting single or multiple concurrent users, where speedy recovery and ease of managing recovery is important to the acquirer, owner/operator, and the developer.

ZWS ISO/IEC 25059:2023
Software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) - Quality model for AI systems
Price Code: Gr. 6
15 pages
Identical to ISO/IEC 25059:2023

This document outlines a quality model for AI systems and is an application-specific extension to the standards on SQuaRE. The characteristics and sub-characteristics detailed in the model provide consistent terminology for specifying, measuring and evaluating AI system quality. The characteristics and sub-characteristics detailed in the model also provide a set of quality characteristics against which stated quality requirements can be compared for completeness.

ZWS ISO/TR 25108:2006
Non-Destructive testing – Guidelines for NDT personnel training organizations
Price Code: Gr. 4
9 pages
Identical to ISO /TR 25108:2006

Gives guidelines for non-destructive testing (NDT) training organizations with the intention of harmonizing and maintaining the general standard of training of NDT personnel for industrial needs.

ZWS ISO 25720:2009
Health informatics - Genomic Sequence Variation Markup Language (GSVML)
Price Code: Gr. 9
133 pages
Identical to ISO 25720:2009

This International Standard is applicable to the data exchange format that is designed to facilitate the exchange of the genomic sequence variation data around the world, without forcing change of any database schema. From an informatics perspective, GSVML defines the data exchange format based on XML. The scope of this International Standard is the data exchange format, but the database schema itself is outside the scope of this International Standard. From a biological point of view, all genetic sequence variations are taken into consideration and are within the scope of this International Standard, while polymorphisms, especially SNPs, are the main focus of this International Standard. In other words, the annotations of variation as clinical concerns and -omics concerns are within the scope of this International Standard. Though SNPs exist in various biological species, the scope of this International Standard covers the human health associated species as human, cell line, and preclinical animals. The other biological species are outside the scope of this International Standard. The clinical field is within the scope of this International Standard, but the basic research fields and other scientific fields are outside the scope of this International Standard. Here, clinical research, including drug discovery, is within the scope of this International Standard. As for supposed application fields, the main focus is in human health, including clinical practice, preventive medicine, translational research and clinical researches.

ZWS ISO 25760:2009
Gas cylinders - Operational procedures for the safe removal of valves from gas cylinders
Price Code: Gr. 6
18 pages
Identical to ISO 25760:2009

This International Standard is intended for suppliers, operators in testing facilities, operators performing cylinder maintenance and any person authorized to remove valves from gas cylinders. It details procedures for the safe removal of valves from cylinders and includes techniques for the identification of inoperable valves. Only the risks due to gas and gas mixtures under pressure are addressed; other technical issues relating to the removal of a valve from a cylinder are not covered. Some specialized equipment and procedures are in use in parts of the gas industry to safely remove cylinder valves from low pressure gas cylinders while under pressure, e.g. liquefied petroleum gas (LPG); these techniques are not included in this International Standard.

ZWS ISO 25841:2011
Female condoms – Requirements and test methods
Price Code: Gr. 7
40 pages
Identical to ISO 25841:2011

Specifies the minimum requirements and test methods for female condoms which are supplied to consumers for contraceptive purposes assisting in the prevention of sexually transmitted infections.

ZWS ISO 26000:2010
Guidance on Social Responsibility
Price Code: Gr.10
106 pages
Identical to ISO 26000:2010

Provides guidance to all types of organizations, regardless of their size or location.

ZWS ISO 26462:2011
Milk – Determination of lactose content – enzymatic method using difference in pH
Price Code: Gr. 5
11 pages
Identical to ISO 26462:2010

Specifies an enzymatic method for the determination of the lactose content of milk and reconstituted milk by measurement of the difference in pH (differential pH measurement).

ZWS ISO/IEC 27000:2016
Information technology – Security techniques – Information security management systems – Overview and vocabulary
Price Code: Gr. 7
35 pages
Identical to ISO/IEC 27000:2016

Provides the overview of information security management systems and terms and definitions commonly used in the ISMS family of standards. This standard is applicable to all types and sizes of organizations.

ZWS ISO/IEC 27001:2022/ AMD 1:2024
Information Security, cybersecurity and privacy protection – Information security management system – Requirements
Price Code: Gr 10
18 pages
Identical to ISO/IEC 27001:2022
Replaces ZWS ISO/IEC 27001:2013

Specifies the requirements for establishing, implementing, maintaining and continually improving an information security management system within the context of the organization. This document also includes requirements for the assessment and treatment of information security risks tailored to the needs of the organization. The requirements set out in this document are generic and are intended to be applicable to all organisations, regardless of type, size or nature. Excluding any of the requirements specified in Clauses 4 to 10 is not acceptable when an organization claims conformity to this document.

ZWS ISO/IEC 27002:2022
Information security, cybersecurity and privacy protection — Information security controls
Price Code: Gr. 10
154 pages
Identical to ISO/IEC 27002:2022

This document provides a reference set of generic information security controls including implementation guidance. This document is designed to be used by organizations:
a) within the context of an information security management system (ISMS) based on ISO/IEC 27001;
b) for implementing information security controls based on internationally recognized best practices;
c) for developing organization-specific information security management guidelines.

ZWS ISO/IEC 27003:2017
Information technology – Security techniques – Information security management systems – Guidance
Price Code: Gr. 10
46 pages
Identical to ISO/IEC 27003:2017

This document provides explanation and guidance on ISO/IEC 27001:2013.

ZWS ISO/IEC 27004:2016
Information technology - Security techniques - Information security management systems - Monitoring, measurement, analysis and evaluation
Price Code: Gr. 10
57 pages
Identical to ISO/IEC 27004:2016

This document provides guidelines intended to assist organizations in evaluating the information security performance and the effectiveness of an information security management system in order to fulfil the requirements of ISO/IEC 27001:2013, 9.1. It establishes:
a) the monitoring and measurement of information security performance;
b) the monitoring and measurement of the effectiveness of an information security management system (ISMS) including its processes and controls;
c) the analysis and evaluation of the results of monitoring and measurement.
This document is applicable to all types and sizes of organizations.

ZWS ISO/IEC 27005:2022
Information security, cybersecurity and privacy protection — Guidance on managing information security risks
Price Code: Gr. 10
71 pages
Identical to ISO/IEC 27005:2022
Replaces ZWS ISO/IEC 27005:2011

This document provides guidance to assist organizations to:
fulfil the requirements of ISO/IEC 27001 concerning actions to address information security risks; perform information security risk management activities, specifically information security risk assessment and treatment. This document is applicable to all organizations, regardless of type, size or sector.

ZWS ISO/IEC 27006: Part 1:2024
Information security, cybersecurity and privacy protection -Requirements for bodies providing audit and certification of information security management systems
Part 1: General
Price Code:Gr. 8
53 pages
Identical to ISO/IEC 27006-1:2024

This document specifies requirements and provides guidance for bodies providing audit and certification of an information security management system (ISMS), in addition to the requirements contained within ISO/IEC 17021-1. The requirements contained in this document are demonstrated in terms of competence and reliability by bodies providing ISMS certification. The guidance contained in this document provides additional interpretation of these requirements for bodies providing ISMS certification.
NOTE: This document can be used as a criteria document for accreditation, peer assessment or other audit processes.

ZWS ISO/IEC/TS 27006: Part 2:2021
Requirements for bodies providing audit and certification of information security management systems
Part 2: Privacy information management systems
Price Code:Gr. 5
9 pages
Identical to ISO/IEC 27006-2:2021

This document specifies requirements and provides guidance for bodies providing audit and certification of a privacy information management system (PIMS) according to ISO/IEC 27701 in combination with ISO/IEC 27001, in addition to the requirements contained within ISO/IEC 27006 and ISO/IEC 27701. It is primarily intended to support the accreditation of certification bodies providing PIMS certification. The requirements contained in this document need to be demonstrated in terms of competence and reliability by anybody providing PIMS certification, and the guidance contained in this document provides additional interpretation of these requirements for any body providing PIMS certification.
NOTE: This document can be used as a criteria document for accreditation, peer assessment or other audit processes.

ZWS ISO/IEC 27007:2020
Information security, cybersecurity and privacy protection — guidelines for information security management systems auditing
Price Code:Gr. 7
53 pages
Identical to ISO/IEC 27007:2020

This document provides guidance on managing an information security management system (ISMS) audit programme, on conducting audits, and on the competence of ISMS auditors, in addition to the guidance contained in ISO 19011. This document is applicable to those needing to understand or conduct internal or external audits of an ISMS or to manage an ISMS audit programme.

ZWS ISO/IEC 27010:2015
Information technology - Security techniques -Information security management for inter-sector and inter-organizational communications
Price Code:Gr. 7
32 pages
Identical to ISO/IEC 27010:2015

This International Standard provides guidelines in addition to the guidance given in the ISO/IEC 27000 family of standards for implementing information security management within information sharing communities. This International Standard provides controls and guidance specifically relating to initiating, implementing, maintaining, and improving information security in inter-organizational and inter-sector communications. It provides guidelines and general principles on how the specified requirements can be met using established messaging and other technical methods. This International Standard is applicable to all forms of exchange and sharing of sensitive information, both public and private, nationally and internationally, within the same industry or market sector or between sectors. In particular, it may be applicable to information exchanges and sharing relating to the provision, maintenance and protection of an organization's or nation state's critical infrastructure. It is designed to support the creation of trust when exchanging and sharing sensitive information, thereby encouraging the international growth of information sharing communities.

ZWS ISO/IEC 27013:2021/Amd 1:2024
Information security, cybersecurity and privacy protection — Guidance on the integrated implementation of ISO/IEC 27001 and ISO/IEC 20000-1
Price Code:Gr. 10
54 pages
Identical to ISO/IEC 27013:2021/Amd 1: 2024

This document gives guidance on the integrated implementation of ISO/IEC 27001 and ISO/IEC 20000-1 for organizations intending to:
a)implement ISO/IEC 27001 when ISO/IEC 20000-1 is already implemented, or vice versa;
b)implement both ISO/IEC 27001 and ISO/IEC 20000-1 together; or
c)integrate existing management systems based on ISO/IEC 27001 and ISO/IEC 20000-1.
This document focuses exclusively on the integrated implementation of an information security management system (ISMS) as specified in ISO/IEC 27001 and a service management system (SMS) as specified in ISO/IEC 20000-1.

ZWS ISO/IEC 27014:2020
Information security, cybersecurity and privacy protection - governance of information security
Price Code: Gr. 6
16 pages
Identical to ISO/IEC 27014:2020

This document provides guidance on concepts, objectives and processes for the governance of information security, by which organizations can evaluate, direct, monitor and communicate the information security-related processes within the organization. The intended audience for this document is: governing body and top management; those who are responsible for evaluating, directing and monitoring an information security management system (ISMS) based on ISO/IEC 27001; those responsible for information security management that takes place outside the scope of an ISMS based on ISO/IEC 27001, but within the scope of governance. This document is applicable to all types and sizes of organizations. All references to an ISMS in this document apply to an ISMS based on ISO/IEC 27001. This document focuses on the

three types of ISMS organizations given in Annex B. However, this document can also be used by other types of organizations.

ZWS ISO/IEC 27017:2015
Information technology – Security techniques – Code of practice for information security controls based on ISO/IEC 27002 for cloud services
Price Code: Gr. 7
31 pages
Identical to ISO/IEC 27017:2015

This international standard gives guidelines for information security controls applicable to the provision and use of cloud services by providing:
–additional implementation guidance for relevant controls specified in ISO/IEC 27002;
–additional controls with implementation guidance that specifically relate to cloud services.
This international standard provides controls and implementation guidance for both cloud service providers and cloud service customers.

ZWS ISO/IEC 27019: 2024
Information security, cybersecurity and privacy protection — Information security controls for the energy utility industry
Price Code: Gr. 7
45 pages
Identical to ISO/IEC 27019:2024

This document provides information security controls for the energy utility industry, based on ISO/IEC 27002:2022, for controlling and monitoring the production or generation, transmission, storage and distribution of electric power, gas, oil and heat, and for the control of associated supporting processes. This includes in particular the following:
—central and distributed process control, monitoring and automation technology as well as information systems used for their operation, such as programming and parameterization devices;
—digital controllers and automation components such as control and field devices or programmable logic controllers (PLCs), including digital sensor and actuator elements;
—all further supporting information systems used in the process control domain, e.g. for supplementary data visualization tasks and for controlling, monitoring, data archiving, historian logging, reporting and documentation purposes;
—communication technology used in the process control domain, e.g. networks, telemetry, telecontrol applications and remote-control technology;
—Advanced metering infrastructure (AMI) components, e.g. smart meters;
—measurement devices, e.g. for emission values;
—digital protection and safety systems, e.g. protection relays, safety PLCs, emergency governor mechanisms;
—energy management systems, e.g. for distributed energy resources (DER), electric charging infrastructures, and for private households, residential buildings or industrial customer installations;
—distributed components of smart grid environments, e.g. in energy grids, in private households, residential buildings or industrial customer installations;
—all software, firmware and applications installed on above-mentioned systems, e.g. distribution management system (DMS) applications or outage management systems (OMS);
—any premises housing the abovementioned equipment and systems;
—remote maintenance systems for abovementioned systems.
This document does not apply to the process control domain of nuclear facilities. This domain is covered by IEC 63096.

ZWS ISO 27021:2017
Information technology – Security techniques - competence requirements for information security management systems professionals
Price Code: Gr. 6
22 pages
Identical to ISO/IEC 27021:2017

This document specifies the requirements of competence for ISMS professionals leading or involved in establishing, implementing, maintaining and continually improving one or more information security management system processes that conforms to ISO/IEC 27001.

ZWS ISO/IEC/TS 27022:2021
Information technology - Guidance on information security management system processes
Price Code: Gr. 7
43 pages
Identical to ISO/IEC 27022:2021

This document defines a process reference model (PRM) for the domain of information security management, which is meeting the criteria defined in ISO/IEC 33004 for process reference models (see Annex A). It is intended to guide users of ISO/IEC 27001 to:
—incorporate the process approach as described by ISO/IEC 27000:2018, 4.3, within the ISMS;
—be aligned to all the work done within other standards of the ISO/IEC 27000 family from the perspective of the operation of ISMS processes
—support users in the operation of an ISMS – this document is complementing the requirements-oriented perspective of ISO/IEC 27003 with an operational, process-oriented point of view.

ZWS ISO/IEC 27032:2023
Cybersecurity - Guidelines for internet security
Price Code: Gr. 7
29 pages
Identical to ISO/IEC 27032:2023

Provides guidance on concepts and principles for the governance of information security by which organizations can evaluate, direct, monitor and communicate the information security related activities within the organizations.

ZWS ISO/IEC 27033: Part 1:2015
Information technology – Security techniques -Network security
Part 1: Overview and concepts
Price code: Gr 7
50 pages
Identical to ISO/IEC 27033-1:2015

This part of ISO/IEC 27033 provides an overview of network security and related definitions. It defines and describes the concepts associated with, and provides management guidance on, network security. (Network security applies to the security of devices, security of management activities related to the devices, applications/services, and end-users, in addition to security of the information being transferred across the communication links.) It is relevant to anyone involved in owning, operating or using a network. This includes senior managers and other non-technical managers or users, in addition to managers and administrators who have specific responsibilities for information security and/or network security, network operation, or who are responsible for an organization's overall security program and security policy development. It is also relevant to anyone involved in the planning, design and implementation of the architectural aspects of network security. This part of ISO/IEC 27033 also includes the following:

—provides guidance on how to identify and analyse network security risks and the definition of network security requirements based on that analysis,
—provides an overview of the controls that support network technical security architectures and related technical controls, as well as those non-technical controls and technical controls that are applicable not just to networks,
—introduces how to achieve good quality network technical security architectures, and the risk, design and control aspects associated with typical network scenarios and network "technology" areas (which are dealt with in detail in subsequent parts of ISO/IEC 27033), and briefly addresses the issues associated with implementing and operating network security controls, and the on-going monitoring and reviewing of their implementation.
Overall, it provides an overview of this International Standard and a "road map" to all other parts.

ZWS ISO/IEC 27033: Part 2:2012
Information technology - Security techniques - Network security
Part 2: Guidelines for the design and implementation of network security
Price code: Gr 7
28 pages
Identical to ISO/IEC 27033-2:2012

This part of ISO/IEC 27033 gives guidelines for organizations to plan, design, implement and document network security.

ZWS ISO/IEC 27033: Part 3:2010
Information technology - Security techniques -Network security
Part 3: Reference networking scenarios - Threats, design techniques and control issues
Price code: Gr 7
29 pages
Identical to ISO/IEC 27033-3:2010

This part of ISO/IEC 27033 describes the threats, design techniques and control issues associated with reference network scenarios. For each scenario, it provides detailed guidance on the security threats and the security design techniques and controls required to mitigate the associated risks. Where relevant, it includes references to ISO/IEC 27033-4 to ISO/IEC 27033-6 to avoid duplicating the content of those documents. The information in this part of ISO/IEC 27033 is for use when reviewing technical security architecture/design options and when selecting and documenting the preferred technical security architecture/design and related security controls, in accordance with ISO/IEC 27033-2. The particular information selected (together with information selected from ISO/IEC 27033-4 to ISO/IEC 27033-6) will depend on the characteristics of the network environment under review, i.e. the particular network scenario(s) and 'technology' topic(s) concerned.
Overall, this part of ISO/IEC 27033 will aid considerably the comprehensive definition and implementation of security for any organization's network environment.

ZWS ISO/IEC 27033: Part 4:2014
Information technology – Security techniques – Network security
Part 4:2014: Securing communications between networks using security gateways
Price code: Gr 7
24 pages
Identical to ISO/IEC 27033-4:2014

This part of ISO/IEC 27033 gives guidance for securing communications between networks using security gateways (firewall, application firewall, Intrusion Protection System, etc.) in accordance with a documented information security policy of the security gateways, including:
a) identifying and analysing network security threats associated with security gateways;
b) defining network security requirements for security gateways based on threat analysis;
c) using techniques for design and implementation to address the threats and control aspects associated with typical network scenarios; and
d) addressing issues associated with implementing, operating, monitoring and reviewing network security gateway controls.

ZWS ISO/IEC 27033: Part 5:2013
Information technology – Security techniques – Network security
Part 5:2013: Securing communications across networks using Virtual Private Networks (VPNs)
Price code: Gr 6
14 pages
Identical to ISO/IEC 27033-5:2013

This part of ISO/IEC 27033 gives guidelines for the selection, implementation, and monitoring of the technical controls necessary to provide network security using Virtual Private Network (VPN) connections to interconnect networks and connect remote users to networks.

ZWS ISO/IEC 27033: Part 6:2016
Information technology – Security techniques – Network security
Part 6: Securing wireless IP network access
Price code: Gr 7
29 pages
Identical to ISO/IEC 27033-6:2016

Describes the threats, security requirements, security control and design techniques associated with wireless networks. It provides guidelines for the selection, implementation and monitoring of the technical controls necessary to provide secure communication using wirelss networks.

ZWS ISO/IEC 27033: Part 7:2023
Information technology - Security techniques - Network security
Part 7:2023: Guidelines for network virtualization security
Price code: Gr 7
23 pages
Identical to ISO/IEC 27033-7:2023

This document aims to identify security risks of network virtualization and proposes guidelines for the implementation of network virtualization security. Overall, this document intends to considerably aid the comprehensive definition and implementation of security for any organization's virtualization environments. It is aimed at users and implementers who are responsible for the implementation and maintenance of the technical controls required to provide secure virtualization environments.

ZWS ISO 27035: Part 1: 2023
Information technology — Information security incident management
Part 1: Principles and process
Price code: Gr 7
36 pages
Identical to ISO/IEC 27035-1:2023

This document is the foundation of the ISO/IEC 27035 series. It presents basic concepts, principles and process with key activities of information security incident management, which provide a structured approach to preparing for, detecting, reporting, assessing, and responding to incidents, and applying lessons learned. The guidance on the information security incident management process and its key activities given in this document are generic and intended to be applicable to all organizations, regardless of

type, size or nature. Organizations can adjust the guidance according to their type, size and nature of business in relation to the information security risk situation. This document is also applicable to external organizations providing information security incident management services.

ZWS ISO 27035: Part 2:2023
Information technology — Information security incident management
Part 2: Guidelines to plan and prepare for incident response
Price code: Gr 8
60 pages
Identical to ISO/IEC 27035-2:2023

This document provides guidelines to plan and prepare for incident response and to learn lessons from incident response. The guidelines are based on the "plan and prepare" and "learn lessons" phases of the information security incident management phases model presented in ISO/IEC 27035-1:2023, 5.2 and 5.6. The major points within the "plan and prepare" phase include:
—information security incident management policy and commitment of top management;
—information security policies, including those relating to risk management, updated at both organizational level and system, service and network levels;
—information security incident management plan;
—Incident Management Team (IMT) establishment;
—establishing relationships and connections with internal and external organizations;
—technical and other support (including organizational and operational support);
—information security incident management awareness briefings and training.
The "learn lessons" phase includes:
—identifying areas for improvement;
—identifying and making necessary improvements;
—Incident Response Team (IRT) evaluation.
The guidance given in this document is generic and intended to be applicable to all organizations, regardless of type, size or nature. Organizations can adjust the guidance given in this document according to their type, size and nature of business in relation to the information security risk situation. This document is also applicable to external organizations providing information security incident management services.

ZWS ISO/IEC 27035: Part 3:2020
Information technology - Information security incident management
Part 3: Guidelines for ICT incident response operations
Price code: Gr 7
36 pages
Identical to ISO/IEC 27035-3:2020

This document gives guidelines for information security incident response in ICT security operations. This document does this by firstly covering the operational aspects in ICT security operations from a people, processes and technology perspective. It then further focuses on information security incident response in ICT security operations including information security incident detection, reporting, triage, analysis, response, containment, eradication, recovery and conclusion. This document is not concerned with non-ICT incident response operations such as loss of paper-based documents. This document is based on the "Detection and reporting" phase, the "Assessment and decision" phase and the "Responses" phase of the "Information security incident management phases" model presented in ISO/IEC 27035 1:2016. The principles given in this document are generic and intended to be applicable to all organizations, regardless of type, size or nature. Organizations can adjust the provisions given in this document according to their type, size and nature of business in relation to the information security risk situation. This document is also applicable to external organizations providing information security incident management services.

ZWS ISO/IEC 27035: Part 4:2024
Information technology - Information security incident management
Part 4: Coordination
Price code: Gr 7
24 pages
Identical to ISO/IEC 27035-4:2024

This document provides guidelines for multiple organizations handling information security incidents in a coordinated manner. It also addresses the impacts of external cooperation on the internal incident management of an individual organization and provides guidelines for an individual organization to adapt to the coordination process. Furthermore, it provides guidelines for the coordination team, if it exists, to perform coordination activities supporting the cross-organization incident response. The principles given in this document are generic and are intended to be applicable to multiple organizations to work together to handle information security incidents, regardless of their types, sizes or nature. Organizations can adjust the guidance given in this document according to their type, sizes and nature of business in relation to the information security risk situation. This document is also applicable to an individual organization that participates in partner relationships.

ZWS ISO/IEC 27037:2012
Information technology — Security techniques — Guidelines for identification, collection, acquisition, and preservation of digital evidence
Price code: Gr 7
37 pages
Identical to ISO/IEC 27037:2012

This International Standard provides guidelines for specific activities in handling digital evidence, which are identification, collection, acquisition and preservation of digital evidence that may be of evidential value. This International Standard provides guidance to individuals with respect to common situations encountered throughout the digital evidence handling process and assists organizations in their disciplinary procedures and in facilitating the exchange of potential digital evidence between jurisdictions. This International Standard gives guidance for the following devices and/or functions that are used in various circumstances:
- Digital storage media used in standard computers like hard drives, floppy disks, optical and magneto optical disks, data devices with similar functions,
- Mobile phones, Personal Digital Assistants (PDAs), Personal Electronic Devices (PEDs), memory cards,
- Mobile navigation systems,
- Digital still and video cameras (including CCTV),
- Standard computer with network connections,
- Networks based on TCP/IP and other digital protocols, and
- Devices with similar functions as above.

NOTE 1: The above list of devices is an indicative list and not exhaustive.
NOTE 2: Circumstances include the above devices that exist in various forms. For example, an automotive system may include mobile navigation system, data storage and sensory system.

ZWS ISO/IEC 27038:2014
Information technology — Security techniques — Specification for digital redaction
Price code: Gr 7
9 pages
Identical to ISO/IEC 27038:2014

This International Standard specifies characteristics of techniques for performing digital redaction on digital documents. This International Standard also specifies requirements for software redaction tools and methods of testing that digital redaction has been securely completed. This International Standard does not include the redaction of information from databases.

ZWS ISO/IEC 27040:2022
Information technology – Security techniques – Storage security
Price code: Gr. 9
109 pages
Identical to 27040:2022

This document provides detailed technical requirements and guidance on how organizations can achieve an appropriate level of risk mitigation by employing a well-proven and consistent approach to the planning, design, documentation, and implementation of data storage security. Storage security applies to the protection of data both while stored in information and communications technology (ICT) systems and while in transit across the communication links associated with storage. Storage security includes the security of devices and media, management activities related to the devices and media, applications and services, and controlling or monitoring user activities during the lifetime of devices and media and after end of use or end of life. Storage security is relevant to anyone involved in owning, operating, or using data storage devices, media, and networks. This includes senior managers, acquirers of storage product and services, and other non-technical managers or users, in addition to managers and administrators who have specific responsibilities for information or storage security, storage operation, or who are responsible for an organization's overall security program and security policy development. It is also relevant to anyone involved in the planning, design, and implementation of the architectural aspects of storage network security. This document provides an overview of storage security concepts and related definitions. It includes requirements and guidance on the threats, design, and control aspects associated with typical storage scenarios and storage technology areas. In addition, it provides references to other International Standards and technical reports that address existing practices and techniques that can be applied to storage security.

ZWS ISO 27050: Part 1:2006
Information technology - Electronic discovery
Part 1:2019: Overview and concepts
Price code: Gr. 6
21 pages
Identical to 27050-1:2006

Electronic discovery is the process of discovering pertinent Electronically Stored Information (ESI) or data by one or more parties involved in an investigation or litigation, or similar proceeding. This document provides an overview of electronic discovery. In addition, it defines related terms and describes the concepts, including, but not limited to, identification, preservation, collection, processing, review, analysis, and production of ESI. This document also identifies other relevant standards (e.g. ISO/IEC 27037) and how they relate to, and interact with, electronic discovery activities. This document is relevant to both non-technical and technical personnel involved in some or all of the electronic discovery activities.

ZWS ISO/IEC 27090:2025
Cybersecurity -Artificial Intelligence- Guidance for addressing security threats to artificial intelligence systems
Price code: Gr. 7
49 pages
Identical to 27090:2025

This document provides guidance for organizations to address security threats and failures specific to artificial intelligence (AI) systems. The guidance in this document aims to provide information to organizations to help them better understand the consequences of security threats specific to AI systems, throughout their life cycle, and descriptions of how to detect and mitigate such threats. This document is applicable to all types and sizes of organizations, including public and private companies, government entities, and not-for-profit organizations, that develop or use AI systems.

ZWS ISO 27105:2016
Milk and cheese – Determination of hen's egg white lysozyme content by high performance liquid chromatography
Price Code: Gr.4
11 pages
Identical to ISO 27105/IDF216:2016,IDT

Specifies a method for the qualitative determination of hen's egg white lysozyme content in milk and cheese.

ZWS ISO/IEC TS 27110:2021
Information technology, cybersecurity and privacy protection – Cybersecurity framework development guidelines
Price Code: Gr.7
25 pages
Identical to ISO IEC TS 27110:2021

This document specifies guidelines for developing a cybersecurity framework. It is applicable to cybersecurity framework creators regardless of their organizations' type, size or nature.

ZWS ISO 27205:2010
Fermented milk products – Bacterial starter cultures – Standard of identity
Price Code: Gr.4
11 pages
Identical to ISO 27205:2010

Specifies characteristics of industrial bacterial starter cultures,which are principally lactic acid bacteria (LAB) but which also include bifidobacteria and propionibacteria used for the manufacture of fermented milk products such as yoghurt ,sour cream,cultured butter cheese.

ZWS ISO/IEC 27400:2022
Cybersecurity — IoT security and privacy — Guidelines Price Code: Gr.7
42 pages
Identical to ISO 27400:2022

This document provides guidelines on risks, principles and controls for security and privacy of Internet of Things (IoT) solutions.

ZWS ISO/IEC 27402:2023
Cybersecurity — IoT security and privacy — Device baseline requirements
Price Code: Gr.6
16 pages
Identical to ISO 27402:2023

This document provides baseline ICT requirements for IoT devices to support security and privacy controls.

ZWS ISO/IEC 27553: Part 2:2025
Information security, cybersecurity and privacy protection — Security and privacy requirements for authentication using biometrics on mobile devices
Part 2: Remote modes
Price Code: Gr.7
39 pages
Identical to ISO 27553-2:2025

This document provides high-level security and privacy requirements for authentication using biometrics on mobile devices, in particular, for functional components, communication, storage and remote processing. This document is applicable to remote modes, i.e. the cases where:
—the biometric sample is captured through mobile devices, and
—the biometric data or derived biometric data are transmitted between the mobile devices and the remote services in either or both directions. The following are out of scope of this document:
—the cases where the biometric data or derived biometric data never leave the mobile devices (i.e. local modes),
—the preliminary steps for biometric enrolment before authentication procedure, and
—the use of biometric identification as part of the authentication.

ZWS ISO/IEC 27562:2024
Information technology — Security techniques — Privacy guidelines for fintech services
Price Code: Gr.6
32 pages
Identical to ISO 27560:2024

This document provides guidelines on privacy for fintech services.
It identifies all relevant business models and roles in consumer-to-business relations and business-to-business relations, as well as privacy risks and privacy requirements, which are related to fintech services. It provides specific privacy controls for fintech services to address privacy risks. This document is based on the principles from ISO/IEC 29100, ISO/IEC 27701, and ISO/IEC 29184, the privacy impact assessment framework described in ISO/IEC 29134, and the risk management guideline described in ISO 31000. It also provides guidelines focusing on a set of privacy requirements for each stakeholder. This document can be applicable to all kinds of organizations such as regulators, institutions, service providers and product providers in the fintech service environment.

ZWS ISO/IEC 27565:2026
Information security, cybersecurity and privacy protection — Guidelines on privacy preservation based on zero-knowledge proofs
Price Code: Gr.7
37 pages
Identical to ISO 27565:2026

This document provides guidelines on using zero-knowledge proofs (ZKP) to improve privacy by reducing the risks associated with the sharing or transmission of personal data between organizations and users by minimizing unnecessary information disclosure. It includes several ZKP functional requirements relevant to a range of different business use cases, then describes how different ZKP models can be used to meet those functional requirements securely.

ZWS ISO/IEC TS 27570:2021
Privacy protection - Privacy guidelines for smart cities
Price Code: Gr.7
40 pages
Identical to ISO/IEC TS 27570:2021

The document takes a multiple agency as well as a citizen-centric viewpoint. It provides guidance on:
—smart city ecosystem privacy protection;
—how standards can be used at a global level and at an organizational level for the benefit of citizens; and
—processes for smart city ecosystem privacy protection.
This document is applicable to all types and sizes of organizations, including public and private companies, government entities, and not-for-profit organizations that provide services in smart city environments.

ZWS ISO/IEC 27701:2025
Information security, cybersecurity and privacy protection — Privacy information management systems — Requirements and guidance
Price Code: Gr.10
68 pages
Identical to ISO/IEC 27701:2025

This document specifies requirements and provides guidance for establishing, implementing, maintaining and continually improving a Privacy Information Management System (PIMS) in the form of an extension to ISO/IEC 27001 and ISO/IEC 27002 for privacy management within the context of the organization. This document specifies PIMS-related requirements and provides guidance for PII controllers and PII processors holding responsibility and accountability for PII processing. This document is applicable to all types and sizes of organizations, including public and private companies, government entities and not-for-profit organizations, which are PII controllers and/or PII processors processing PII within an ISMS.

ZWS ISO 27871:2011
Cheese and processed cheese – Determination of the nitrogenous fractions
Price Code: Gr.
10 pages
Identical to ISO 27871:2011

Specifies a method for determining the nitrogenous fractions in cheese and processed cheese from cow milk.

ZWS ISO 28001:2007
Security management systems for the supply chain — Best practices for implementing supply chain security, assessments and plans — Requirements and guidance
Price Code: Gr. 7
27 pages
Identical to ISO 28001:2007

This International Standard provides requirements and guidance for organizations in international supply chains to;
- develop and implement supply chain security processes;
- establish and document a minimum level of security within a supply chain(s) or segment of a supply chain;
- assist in meeting the applicable authorized economic operator (AEO) criteria set forth in the World Customs Organization Framework of Standards and conforming national supply chain security programmes.

NOTE: Only a participating National Customs Agency can designate organizations as AEOs in accordance with its supply chain security programme and its attendant certification and validation requirements. In addition, this International Standard establishes certain documentation requirements that would permit verification. Users of this International Standard will;
- define the portion of an international supply chain within which they have established security (see 4.1);
- conduct security assessments on that portion of the supply chain and develop adequate countermeasures;
- develop and implement a supply chain security plan;
- train security personnel in their security related duties.

ZWS ISO 28564: Part 2:2016
Public information guidance systems
Part 2: Guidelines for the design and use of location signs and direction signs
Price Code: Gr. 7
32 pages
Identical to ISO 28564-2:2016

This part of ISO 28564 gives a range of guidelines for various stages of preparation, design, construction, inspection, updating and testing which comprise a location sign or a direction sign used in public places and working areas. This part of ISO 28564 is applicable to the design and use of location signs and direction signs used in all sorts of public places, such as shopping centres, stores, hospitals, bus and railway stations, airports, sporting, exhibition halls and entertainment complexes, urban areas, parks, gardens and countryside, public attractions, museums and commercial office buildings. The design and use of location signs and direction signs in working areas can also resort to the content for reference. It is not applicable to those sectors (for example, traffic signs on a public highway), which are subject to regulations or specified design principles. However, in a given public environment or within a wayfinding and signing design brief, public information sometimes needs to be associated with other messaging, so many of the principles contained in this part of ISO 28564 can be relevant in the planning of a coordinated scheme.

ZWS ISO 28564: Part 4:2023
Public information guidance systems
Part 4: Installation and assessment
Price Code: Gr. 5
10 pages
Identical to ISO 28564-4:2023

This document specifies principles, requirements and methods for the installation of public information guidance systems. It also provides guidelines on the assessments of the outcomes of public information guidance systems. It is intended for use by organizations providing design and installation services in the field of public information guidance systems and organizations selecting, using or developing relative assessments. This document is applicable to the installation and assessment of public information guidance systems used in public places, such as bus and railway stations, airports, shopping centres, shops, hospitals, exhibition halls, sports and entertainment complexes, urban areas, parks, gardens and countryside, public attractions, museums and commercial office buildings.
This document is not applicable to:
—variable message signs (e.g. dynamic message signs, matrix signs and electronic traffic displays);
—sectors (e.g. traffic signs on a public highway) which are subject to specific regulations or specified installation principles; however, in a given public environment or within a wayfinding and signing design brief, public information sometimes needs to be associated with other messaging, so many of the principles contained in this document can be relevant in the planning of a coordinated scheme.

ZWS ISO TS 29001:2020
Petroleum, petrochemical and natural gas industries - Sector-specific quality management systems - Requirements for product and service supply organizations
Price Code: Gr. 8
53 pages
Identical to ISO TS 29001:2020

This International Standard specifies requirements for a quality management system when an organization: (a) needs to demonstrate its ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements, and (b) aims to enhance customer satisfaction through the effective application of the system, including processes for improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements. All the requirements of this International Standard are generic and are intended to be applicable to any organization, regardless of its type or size, or the products and services it provides.

ZWS ISO/IEC/TS 29003: 2017
Information technology - Security techniques -Specification for digital redaction
Price Code: Gr. 6
20 pages
Identical to ISO TS 29003:2017

This document:
—gives guidelines for the identity proofing of a person;
—specifies levels of identity proofing, and requirements to achieve these levels.
This document is applicable to identity management systems.

ZWS ISO/IEC 29184:2020
Information technology — Online privacy notices and consent
Price Code: Gr. 7
25 pages
Identical to ISO/IEC 29184:2020

This document specifies controls which shape the content and the structure of online privacy notices as well as the process of asking for consent to collect and process personally identifiable information (PII) from PII principals. This document is applicable in any online context where a PII controller or any other entity processing PII informs PII principals of processing.

ZWS ISO/IEC 29191:2012
Information technology — Security techniques — Requirements for partially anonymous
Price Code: Gr. 5
13 pages
Identical to ISO/IEC 29191:2012

This International Standard provides a framework and establishes requirements for partially anonymous, partially unlinkable authentication.

ZWS ISO 29783: Part 2:2015
Prosthetics and orthotics – Vocabulary
Part 2: Prosthetic gait
Price Code: Gr. 6
14 pages
Identical to ISO 29783-2:2015

This part of ISO 27983 specifies a vocabulary for the description of prosthetic gait.

ZWS ISO 29783: Part 3:2016
Prosthetics and orthotics -Vocabulary
Part 3: Pathological gait (excluding prosthetic gait)
Price Code: Gr. 4
3 pages
Identical to ISO 29783-3:2016

This part of ISO 29783 specifies a method of describing abnormal gait patterns resulting from pathology (excluding prosthetic gait) by identifying the deviations from the normal pattern of gait during each sub-phase of the gait cycle. The description of the deviations includes references to abnormal foot contact and abnormalities of joint motion.

ZWS ISO/IEC 29794: Part 4:2024
Information technology – Biometric sample quality
Part 4:2024: Finger image data
Price Code: Gr. 6
61 pages
Identical to ISO 29794-4:2024

This document establishes:
—terms and definitions for quantifying finger image quality;
—methods used to quantify the quality of finger images; and
—standardized encoding of finger image quality;
for finger images at 196,85 px/cm spatial sampling rate and a bit depth of 8 bit for the greyscale pixel intensity values scanned or captured using optical area sensors in direct contact with friction ridges.

ZWS ISO 29942:2011
Prophylactic dams – Requirements and test methods
Price Code:Gr. 7
29 pages
Identical to ISO 29942:2011

Specifies the minimu requirements and test methods for prophylactic dams used to assist in the prevention of sexually transmitted infections.

ZWS ISO 29991:2014
Language learning services outside formal education -requirements
Price Code: Gr. 6
13 pages
Identical to ISO 29991:2014

This document specifies requirments for language learning services outside formal education.

ZWS ISO 29992:2018
Assessment of outcomes of learning services -Guidelines
Price Code: Gr. 6
14 pages
Identical to ISO 29992:2018

This document provides guidance on the planning ,development, implementation and review of assessments of the outcomes of learning services

ZWS ISO 29993:2017
Learning services outside formal education -requirements
Price Code: Gr. 6
13 pages
Identical to ISO 29993:2017

This document specifies requirments for language learning services outside formal education.

ZWS ISO 29994:2021
Education and learning services - Requirements for distance learning
Price Code: Gr. 5
8 pages
Identical to ISO 29994:2021

This document specifies requirments for distance learning services not specified in ISO 29993. It is applicable to any distance learning services that are addressed to learners themselves as well as to sponsors who are acquiring the services on behalf of learners.

ZWS ISO 29996:2024
Education and learning services — Distance and digital learning services (DDLS) — Case studies
Price Code: Gr. 6
18 pages
Identical to ISO 29996:2024

This document provides real cases, situational understanding and practical solutions to apply the related contents of ISO 29992, ISO 29993 and ISO 29994 in the scenario of DDLS. This document can be used as a reference and/or inspiration for DDLSP analysing and improving their DDLS, and pursuing quality DDLS, by applying ISO 29992, ISO 29993 and ISO 29994.

ZWS ISO 29997:2024
Internships – Quality guidelines for host organizations
Price Code: Gr. 5
11 pages
Identical to ISO 29997:2024

This document outlines guidance for the management of internships to enable host organizations to consistently offer and enhance internship experiences aligned with intended learning outcomes.

ZWS ISO 30024:2024
Animal feeding stuffs – Determination of phytase activity
Price Code: Gr. 7
22 pages
Identical to ISO 30024:2024

This document specifies the determination of phytase activity in feeding stuff samples, including feed raw materials from plant origin, compound feeds (complete, complementary, mineral feeds), premixtures and feed additives. The method is applicable to, and is collaboratively validated for, the determination of phytase activity in complete feed, complementary feed including mineral feed, premixtures and feed additives. The method does not distinguish between phytase added as a feed additive and endogenous phytase already present in the feed materials. Therefore, the method is also applicable for feed materials from plant origin. The method does not apply to evaluating or comparing the in vivo efficacy of the phytase product. It is not a predictive method of the in vivo efficacy of phytases present on the market as they can develop different in vivo efficacy per unit of activity.

ZWS ISO/IEC TS 30104:2015
Information technology — Security techniques — Physical security attacks, mitigation techniques and security requirements
Price Code: Gr. 7
30 pages
Identical to ISO 30104:2015

Physical security mechanisms are employed by cryptographic modules where the protection of the modules sensitive security parameters is desired. This Technical Specification addresses how security assurance can be stated for products where the risk of the security environment requires the support of such mechanisms. This Technical Specification addresses the following topics:
— a survey of physical security attacks directed against different types of hardware embodiments including a description of known physical attacks, ranging from simple attacks that require minimal skill or resources, to complex attacks that require trained, technical people and considerable resources;
— guidance on the principles, best practices and techniques for the design of tamper protection mechanisms and methods for the mitigation of those attacks; and
— guidance on the evaluation or testing of hardware tamper protection mechanisms and references to current standards and test programs that address hardware tamper evaluation and testing.

The information in this Technical Specification is useful for product developers designing hardware security implementations, and testing or evaluation of the final product. The intent is to identify protection methods and attack methods in terms of complexity, cost and risk to the assets being protected. In this way cost effective protection can be produced across a wide range of systems and needs.

ZWS ISO/IEC 30162:2022
Internet of Things (IoT) – Compatibility requirements and model for devices within industrial IoT systems
Price Code: Gr. 7
48 pages
Identical to ISO/IEC 30162:2022

This document specifies network models for IoT connectivity and general compatibility requirements for devices and networks within IoT systems in terms of:
a) data transmission protocols interaction;
b) distributed data interoperability and management;
c) connectivity framework;
d) connectivity transport;
e) connectivity network;
f) best practices and guidance to use in IoT area.

ZWS ISO 30400:2016
Human Resource Management – Vocabulary
Price Code: Gr. 5
29 pages
Identical to ISO 30400:2016

This document defines terms used in human resource management standards.

ZWS ISO 30401:2018/ AMD 2:2024
Knowledge management systems – Requirements
Price Code: Gr. 10
23 pages
Identical to ISO 30401:2018

This document sets requirements and provides guidelines for establishing, implementing, maintaining, reviewing and improving an effective management system for knowledge management in organizations. All the requirements of this document are applicable to any organization, regardless of its type or size, or the products and services it provides.

ZWS ISO 30405:2016
Human Resources Management-Guidelines on Recruitment
Price Code: Gr. 5
23 pages
Identical to ISO 30405:2016

Provides guidance on how to attract, source, assess and recruit people. It focuses on key processes and practices, including recruitment policy development, the flow from the sourcing of potential applicants to the boarding of new recruits as well as evaluation and measurement.

ZWS ISO TR 30406:2017
Human Resources Management - Sustainable Employability Management for Organizations
Price Code: Gr. 6
12 pages
Identical to ISO 30406:2017

This document provides guiding principles for developing and implementing sustainable employability policies. Sustainable employability is relevant on different levels:government , organizational and individual. This document focuses exclusively on the organizational level.

ZWS ISO 30407:2017
Human Resources Management-Cost Per Hire
Price Code:Gr.6
14 pages
Identical to ISO 30407:2017

The purpose of this standard is to measure the economic value of the effort taken to fill an open position in an organization. It describes actions to be taken when calculating CPH to maintain quality and transparency.

ZWS ISO 30408:2016
Human Resource Management – Guidelines On Human Governance
Price Code: Gr. 5
29 pages
Identical to ISO 30408:2016

This document provides guidelines on tools, processes and practices to be put in place in order to establish, maintain and continually improve effective human governance within organizations.
This document is applicable to organizations of all sizes and sectors, whether public or private, for profit or not for profit.
This document does not address relations with trade unions or other representative bodies.

ZWS ISO 30409:2016
Human Resource Management – Workforce Planning
Price Code: Gr. 7
29 pages
Identical to ISO 30409:2016

This document provides guidelines and a framework for workforce planning that are scalable to the needs of any organization regardless of size, industry or sector.

ZWS ISO TS 30410:2018
Human Resources Management – Impact of Hire Metric
Price Code: Gr. 5
8 pages
Identical to ISO 30410:2018

This document identifies principles for determining critical positions by using workforce segmentation approaches. It also identifies measures to determine the impact of critical positions, and the performance of people hired into these positions, on organizational value creation and performance.

ZWS ISO TS 30414:2018
Human Resources Management – Diversity and Inclusion
Price Code: Gr 7
38 pages
Identical to ISO 30414:2018

This document provides guidelines for internal and external human capital reporting (HCR). The objective is to consider and to make transparent the human capital contribution to the organization in order to support sustainability of the workforce. This document is applicable to all organizations, regardless of the type, size, nature or complexity of the business, whether in the public, private or voluntary sector, or a not-for-profit organization.

ZWS ISO TS 30415:2021
Human Resources Management – Diversity and Inclusion
Price Code: Gr 7
47 pages
Identical to ISO 30415:2021

This document provides guidance on D&I for organizations, including their governance body, leaders, workforce and recognized

representatives, and other stakeholders. It is intended to be scalable to the needs of all types of organizations in different sectors, whether in public, private, government or non-governmental organizations (NGO), regardless of size, type, activity, industry or sector, growth phase, external influences and country-specific requirements.

ZWS ISO TS 30423:2021
Human Resources Management – Compliance and ethics metrics cluster
Price Code: Gr 5
15 pages
Identical to ISO 30423:2021

This document describes the elements of compliance and ethics. This document provides the formula for comparable measures for internal and external reporting. This document also highlights issues that need to be considered when interpreting the compliance data, especially when deciding on the appropriate intervention internally and when reporting these to external stakeholders (e.g. regulators, investors).

ZWS ISO TS 30425:2021
Human Resource Management – Workforce availability metrics cluster
Price Code: Gr. 5
15 pages
Identical to ISO 30425:2021

This document describes the measurement elements of workforce availability for organizations. This document provides the formula for comparable measures for internal and external reporting. This document also highlights issues that need to be considered when interpreting compliance data, especially when deciding on appropriate interventions internally and when reporting these to external stakeholders (e.g. regulators, investors).

ZWS ISO TS 30427:2021
Human Resources Management – Costs metrics cluster
Price Code: Gr 5
11 pages
Identical to ISO 30427:2021

This document describes the elements of organizational workforce costs. This document provides the formula for comparable measures for internal and external reporting. This document also highlights issues for consideration when interpreting the cost data, especially when deciding on the appropriate intervention internally and when reporting these to external stakeholders (e.g. regulators, investors).

ZWS ISO TS 30428:2021
Human Resources Management – skills and capabilities metrics cluster
Price Code: Gr 6
22 pages
Identical to ISO 30428:2021

This document describes and defines the five metrics of skills and capabilities. This document also provides the formula for each metric and describes the common metrics which employ the five metrics. This document also highlights issues that need to be considered when interpreting the skills and capabilities data, especially when deciding on the appropriate intervention internally and when reporting these to external stakeholders (e.g. regulators, investors).

ZWS ISO TS 30430:2021
Human Resources Management – recruitment metrics cluster
Price Code: Gr 5
9 pages
Identical to ISO 30430:2021

This document describes the elements of recruitment in the recruitment, mobility and turnover cluster. This document provides the formulae for comparable measures for internal and external reporting. This document also highlights issues that need to be considered when interpreting the recruitment data, especially when deciding on the appropriate intervention internally and when reporting these to external stakeholders, such as regulators and investors.

ZWS ISO TS 30431:2021
Human Resources Management – leadership metrics cluster
Price Code: Gr 5
9 pages
Identical to ISO 30431:2021

This document describes the elements of the leadership metrics cluster. This document provides the formula for comparable measures for internal and external reporting. This document also highlights issues that need to be considered when interpreting the leadership data, especially when deciding on the appropriate intervention internally and when reporting these to external stakeholders (e.g. regulators, investors).

ZWS ISO TS 30432:2021
Human Resources Management – workforce productivity metrics cluster
Price Code: Gr 5
9 pages
Identical to ISO 30432:2021

This document describes the elements of workforce productivity metrics cluster. This document provides the formula for comparable measures for internal and external reporting. This document also highlights issues to be considered when interpreting the productivity data, especially when deciding on the appropriate intervention internally and when reporting this to external stakeholders (e.g. regulators, investors).

ZWS ISO TS 30433:2021
Human Resources Management – Succession planning metrics cluster
Price Code: Gr 6
18 pages
Identical to ISO 30433:2021

This document specifies the elements of succession planning metrics and provides comparable measures for internal and external reporting. The document also highlights issues that need to be considered when interpreting the succession planning data, especially when deciding on the appropriate intervention internally and when reporting this to external stakeholders such as regulators or investors.

ZWS ISO 30435:2023
Human resource management — Workforce data quality Price Code: Gr. 6
13 pages
Identical to ISO 30435:2023

This document provides the basis for organizational improvement underpinned by quality workforce data that supports analysis and evidenced-based decision-making. Workforce data quality, for the purpose of this document, is the process of:
a) workforce data determination;
b) data capture;

c) data maintenance;
d) data review processes.
The focus of this document is on the quality of data itself rather than on other critical aspects relating to the overall management of data, such as privacy and security of personal data, the analysis and reporting of data and the use of technology. This document does not cover the analysis of data and reporting structure or the definition of any metric other than quality of workforce data. Technology platforms in the form of human resource information systems, databases, spreadsheets, and the like, can improve the process of the capture and management of data. The focus of this document is the data itself. While data security and data privacy are also critical to the overall management of data, they are not dealt with in this document. This document is applicable to all types and sizes of organization across all industry sectors and regions.

ZWS ISO TS 30437:2023
Human resource management — Learning and development metrics
Price Code: Gr. 7
42 pages
Identical to ISO 30437:2023

This document provides recommendations on how to measure learning. Since the selection of metrics depends on the reason to measure and the user of the metrics, and since a balanced set of metrics is important to avoid unintended consequences, the document begins with a framework for organizational learning and development (L&D), including five categories of users, four broad reasons to measure and three types of metrics. This framework is then used to recommend 50 metrics organized by user, type of metric and size of organization, and provide a description of each. The document concludes with guidance on reporting metrics, including a description of the different types of reports and guidance on their selection based on the user's reasons for measuring. Metrics for both formal and informal learning are included. The guidance is intended for all types of organizations, including commercial and nonprofit, as well as for all sizes. No previous knowledge of L&D metrics is required, although those new to L&D measurement can consult the suggested references on matters of frameworks, metrics and programme evaluation to learn more.

ZWS ISO 30500:2018
Non- sewered sanitation systems – Prefabricated integrated treatment units – General safety and performance requirements for design and testing
Price Code: Gr 8
90 pages
Identical to ISO 30500:2018

This document specifies general safety and performance requirements for design and testing as well as sustainability considerations for non-sewered sanitation systems (NSSS).

ZWS ISO 31000:2018
Risk Management - Guidelines
Price Code: Gr. 10
16 pages
Supercedes ZWS ISO 31000:2010

This document provides guidelines on managing risk faced by organisations.The application of these guidelines can be customized to any organization and its context.It provides a common approach to managing any type risk of risk and is not industry or sector specific.

ZWS ISO/IEC 31010:2019
Risk management – Risk assessment techniques
Price Code: Gr. 10
114 pages
Identical to ISO/IEC 31010:2019

This International Standard provides guidance on the selection and application of techniques for assessing risk in a wide range of situations. The techniques are used to assist in making decisions where there is uncertainty, to provide information about particular risks and as part of a process for managing risk. The document provides summaries of a range of techniques, with references to other documents where the techniques are described in more detail..

ZWS ISO 31022:2020
Risk management – Guidelines for the management of legal risk
Price Code: Gr. 7
32 pages
Identical to ISO 31022:2020

This document gives guidelines for managing the specific challenges of legal risk faced by organizations, as a complementary document to ISO 31000. The application of these guidelines can be customized to any organization and its context. This document provides a common approach to the management of legal risk and is not industry or sector specific.

ZWS ISO 31030:2021
Travel risk management – Guidance for organisations
Price Code: Gr. 8
52 pages
Identical to ISO 31030:2021

This document gives guidance to organizations on how to manage the risk(s), to the organization and its travellers, as a result of undertaking travel. This document provides a structured approach to the development, implementation, evaluation and review of: policy; programme development; threat and hazard identification; opportunities and strengths; risk assessment; prevention and mitigation strategies. This document is applicable to any type of organization, irrespective of sector or size, including but not limited to: commercial organizations; charitable and not-for-profit organizations; governmental organizations; non-governmental organizations; educational organizations. This document does not apply to tourism and leisure-related travel, except in relation to travellers travelling on behalf of the organization.

ZWS ISO 31073:2020
Risk management – Vocabulary
Price Code: Gr. 6
13 pages
Identical to ISO 31073:2020

This document defines generic terms related to the management of risks faced by organizations.

ZWS ISO 33402:2025
Good practice in reference material preparation
Price Code: Gr. 7
42 pages
Identical to ISO 33402:2025

This document gives general information on the key steps for the preparation of candidate matrix reference materials (RMs) including the material specification, sourcing and selection of bulk material, and the processing of the material, which are important steps for the production of matrix RMs. The document provides information on the preparation of candidate RMs for laboratory staff

who prepare and use matrix materials for their specific applications. This document can also be used by reference material producers (RMPs) as an information source for the preparation of the RMs that they produce. This document also offers examples of specific case studies covering the preparation of matrix RMs in different fields of application (see Annexes A to F). These are not complete "production manuals" but highlight key considerations for the preparation steps of RMs.

ZWS ISO TS 34700:2016
Animal welfare management – General requirements and guidelines for organizations in the food supply chain
Price Code: Gr. 6
16 pages
Identical to ISO TS 34700:2016

Provides requirements and guidance for the implementation of the animal welfare principles as described in the introduction to the recommendations for animal welfare of the OIE TAHC.

ZWS ISO 37000:2021
Governance of organisations — Guidance
Price Code: Gr. 7
41 pages
Identical to ISO TS 37000:2021

This document gives guidance on the governance of organizations. It provides principles and key aspects of practices to guide governing bodies and governing groups on how to meet their responsibilities so that the organizations they govern can fulfil their purpose. It is also intended for stakeholders involved in, or impacted by, the organization and its governance. It is applicable to all organizations regardless of type, size, location, structure or purpose.

ZWS ISO 37001:2025
Anti-bribery management systems — Requirements with guidance for use
Price Code: Gr. 10
48 pages
Identical to ISO 37001:2025

This document specifies requirements and provides guidance for establishing, implementing, maintaining, reviewing and improving an anti-bribery management system. The system can be stand-alone or can be integrated into an overall management system. This document addresses the following in relation to the organization's activities:
— bribery in the public, private and not-for-profit sectors;
— bribery by the organization;
— bribery by the organization's personnel acting on the organization's behalf or for its benefit;
— bribery by the organization's business associates acting on the organization's behalf or for its benefit; — bribery of the organization;
— bribery of the organization's personnel in relation to the organization’s activities;
— bribery of the organization's business associates in relation to the organization’s activities; — direct and indirect bribery (e.g. a bribe offered or accepted through or by a third party). This document is applicable only to bribery. It sets out requirements and provides guidance for a management system designed to help an organization to prevent, detect and respond to bribery and comply with antibribery laws and voluntary commitments applicable to its activities. The requirements of this document are generic and are intended to be applicable to all organizations (or parts of an organization), regardless of type, size and nature of activity, and whether in the public, private or not-for-profit sectors. The extent of application of these requirements depends on the factors specified in 4.1, 4.2 and 4.5.
NOTE 1: See Clause A.2 for guidance.
NOTE 2: The measures necessary to prevent, detect and mitigate the risk of bribery by the organization can be different from the measures used to prevent, detect and respond to bribery of the organization (or its personnel or business associates acting on the organization's behalf). See A.8 for guidance.

ZWS ISO 37301:2021
Compliance management systems — Requirements with guidance for use
Price Code: Gr. 10
41 pages
Identical to ISO TS 37301:2021

This document specifies requirements and provides guidelines for establishing, developing, implementing, evaluating, maintaining and improving an effective compliance management system within an organization. This document is applicable to all types of organizations regardless of the type, size and nature of the activity, as well as whether the organization is from the public, private or nonprofit sector. All requirements specified in this document that refer to a governing body apply to top management in cases where an organization does not have a governing body as a separate function.

ZWS ISO 38500:2024
Information technology — Governance of IT for the organization
Price Code: Gr. 6
12 pages
Identical to ISO 38500:2015

This International Standard provides guiding principles for members of governing bodies of organizations (which can comprise owners, directors, partners, executive managers, or similar) on the effective, efficient, and acceptable use of information technology (IT) within their organizations. It also provides guidance to those advising, informing, or assisting governing bodies. They include the following:
— executive managers;
— members of groups monitoring the resources within the organization;
— external business or technical specialists, such as legal or accounting specialists, retail or industrial associations, or professional bodies;
— internal and external service providers (including consultants);
— auditors. This International Standard applies to the governance of the organization’s current and future use of IT including management processes and decisions related to the current and future use of IT. These processes can be controlled by IT specialists within the organization, external service providers, or business units within the organization. This International Standard defines the governance of IT as a subset or domain of organizational governance, or in the case of a corporation, corporate governance. This International Standard is applicable to all organizations, including public and private companies, government entities, and not-for-profit organizations. This International Standard is applicable to organizations of all sizes from the smallest to the largest, regardless of the extent of their use of IT. The purpose of this International Standard is to promote effective, efficient, and acceptable use of IT in all organizations by
— assuring stakeholders that, if the principles and practices proposed by the standard are followed, they can have confidence in the organization’s governance of IT,
— informing and guiding governing bodies in governing the use of IT in their organization, and — establishing a vocabulary for the governance of IT.

ZWS ISO IEC/TR 38502:2017
Information technology – Governance of IT – Framework and model
Price Code: Gr. 6
16 pages
Identical to ISO/IEC 38502:2017

This Technical Report provides guidance on the nature and mechanisms of governance and management together with the relationships between them, in the context of IT within an organization. The purpose of this Technical Report is to provide information on a framework and model that can be used to establish the boundaries and relationships between governance and management of an organization's current and future use of IT. This Technical Report provides guidance for: governing bodies; managers who have to work within the authority and accountability established by governance; advisors or those assisting in the governance of organizations of all sizes and types; and developers of standards in the areas of governance of IT and management of IT. Provides guidance on the nature and mechanisms of governance and mangement together with the relationships between them in the context of IT within an organization.

ZWS ISO/IEC/TR 38508:2026
Information technology - Governance of IT - Governance implications of the use of a shared digital service platform among ecosystem organizations
Price Code: Gr. 7
16 pages
Identical to ISO/IEC 38508:2026

This document provides guidance for members of governing bodies of organizations on the effective, efficient and acceptable use of a shared digital service platform among ecosystem organizations by:
— establishing a vocabulary for the governance of a shared digital service platform among ecosystem organizations;
— providing a framework for understanding the implications of the use of a shared digital service platform among ecosystem organizations;
— guiding governing bodies to evaluate, direct and monitor the introduction and use of a digital service platform, applying the governance principles of ISO/IEC 38500;
— assuring stakeholders that, if the guidance proposed by this document is followed, they can have confidence in the organization's use of shared digital service platform among ecosystem organizations.
This document also provides guidance to those advising, informing or assisting governing bodies, including:
— executive managers;
— members of groups monitoring the resources within the organization;
— external businesses or technical specialists, such as legal or accounting specialists, retail or industrial associations, or professional bodies;
— public authorities and policy makers;
— internal and external service providers (including consultants);
— auditors.

ZWS ISO 39001:2012
Road traffic safety (RTS) Management systems – Requirements with guidance for use
Price Code: Gr. 10
36 pages
Identical to ISO 39001:2012

Specifies requirements for a road traffic safety (RTS) management system to enable an organization that interacts with the road traffic system to reduce death and serious injuries related to road traffic crashes which it can influence.

ZWS ISO 39294: Part 1-1:2025
Learning technology - JavaScript object notation (json) data model format and representational state transfer (restful) web service for learner experience Data tracking and access
Part 1-1: 2025: xAPI using JSON serialization and restful data transport
Price Code: Gr. 9
108 pages
Identical to ISO 39294: Part 1-1:2025

This standard describes a JavaScript Object Notation (JSON) data model format and a Representational State Transfer (RESTful) Web Service Application Programming Interface (API) for communication between Activities experienced by an individual, group, or other entity and a Learning Record Store (LRS). The LRS is a system that exposes the xAPI RESTful Web Service API for the purpose of tracking and accessing experiential data, especially in learning and human performance.

ZWS ISO 39794: Part 2:2023
Information technology — Extensible biometric data interchange formats
Part 2: Finger minutiae data
Price Code: Gr.7
77 pages
Identical to ISO 39794-2:2023

This document specifies:
—generic extensible data interchange formats for the representation of finger minutia data:
—a tagged binary data format based on an extensible specification in ASN.1,
—a textual data format based on an XML schema definition that is capable of holding the same information as the tagged binary format, and
—an on-card biometric comparison format based on extensible TLV encoding;
—on-card biometric comparison parameters based on extensible TLV encoding for constructing valid probe data in the on-card biometric comparison format;
—examples of data record contents;
—application-specific requirements, recommendations and best practices in determining minutiae location, direction and type; and
—conformance test assertions and conformance test procedures applicable to this document.
NOTE: Whereas ISO/IEC 39794-4 covers finger, palm, toe and foot image data, this document covers only finger minutiae and is not applicable to palms, toes or feet.

ZWS ISO/IEC 39794: Part 16:2021
Information technology — Extensible biometric data interchange formats
Part 16: Full body image data
Price Code: Gr. 9
145 pages
Identical to ISO 39794-16:2021

This document is intended to provide a generic extensible full body image data format for biometric recognition applications requiring exchange of human full body image data. Typical applications are:
a)automated body biometric verification and identification of an unknown individual or cadaver (one-to-one as well as one-to-many comparison);
b)support for human verification of identity by comparison of individuals against full body images; and
c)support for human examination of full body images with sufficient resolution to allow a human examiner to verify identity or identify a living individual or a cadaver.

This document ensures that full human body images and image sequence data generated by video surveillance and other similar systems are suitable for identification and verification.
The structure of the data format in this document is compatible with ISO/IEC 39794-5. In addition to the data format, this document specifies application-specific profiles including scene constraints, photographic properties and digital image attributes like image spatial sampling rate, image size, etc. These application profiles are contained in a series of annexes.
The 3D encoding types "3D point map" and "range image" are not supported by this document.

ZWS ISO 42001:2023
Information technology — Artificial intelligence — Management system
Price Code: Gr. 10
52 pages
Identical to ISO 42001:2023

This document specifies the requirements and provides guidance for establishing, implementing, maintaining and continually improving an AI (artificial intelligence) management system within the context of an organization. This document is intended for use by an organization providing or using products or services that utilize AI systems. This document is intended to help the organization develop, provide or use AI systems responsibly in pursuing its objectives and meet applicable requirements, obligations related to interested parties and expectations from them. This document is applicable to any organization, regardless of size, type and nature, that provides or uses products or services that utilize AI systems.

ZWS ISO/IEC 42006:2025
Information technology - Artificial intelligence - Requirements for bodies providing audit and certification of artificial intelligence management systems
Price Code: Gr. 10
31 pages
Identical to ISO 42006:2025

This document specifies additional requirements to ISO/IEC 17021-1. The requirements contained in this document, when implemented, support the demonstration of competence, consistency and reliability by the bodies performing auditing and certification of an artificial intelligence management system (AIMS) according to ISO/IEC 42001 for organizations that provide, develop or use AI systems. Certification of AIMS is a third-party conformity assessment activity (as described in ISO/IEC 17000:2020, 4.5), and bodies performing this activity are third-party conformity assessment bodies. This document also provides the necessary information and confidence to customers about the way certification has been granted.
NOTE: This document can be used as a criteria document for accreditation or peer assessment.

ZWS ISO 45001:2018/ AMD 1:2024
Occupational health and safety management systems – requirements with guidance for use
Price Code: Gr. 10
39 pages
Identical to ISO 45001:2018

Specifies requirements for an occupational health and safety (OH&S) management system and gives guidance for its use to enable organisations to provide safe and healthy workplaces by preventing work-related injury and ill health as well as by proactively improving its OH&S performance. This document is applicable to any organization that wishes to establish, implement and maintain an OH&S management system to improve occupational health and safety.

ZWS ISO 45002:2023
Occupational health and safety management systems – General guidelines for the implementation of ISO 45001:2018
Price Code: Gr. 10
78 pages
Identical to ISO 45002:2023

This document gives guidance on the establishment, implementation, maintenance and continual improvement of an occupational health and safety (OH&S) management system that can help organizations conform to ISO 45001:2018.
NOTE 1: While the guidance in this document is consistent with the ISO 45001:2018 OH&S management system model, it is not intended to provide interpretations of the requirements in ISO 45001.
NOTE 2: The use of the term “should” in this document does not weaken any of the requirements in ISO 45001:2018 or add new requirements.
NOTE 3: For most of the clauses in this document, there are real-life cases on how different types of organizations have implemented the requirements. These are not intended to suggest the only or best way to do this, but to describe one way this was done by an organization.

ZWS ISO 45003:2021
Occupational health and safety management – Psychological health and safety at work – Guidelines for managing psychosocial risks
Price Code: Gr. 7
26 pages
Identical to ISO 45003:2021

This document gives guidelines for managing psychosocial risk within an occupational health and safety (OH&S) management system based on ISO 45001. It enables organizations to prevent work-related injury and ill health of their workers and other interested parties, and to promote well-being at work. It is applicable to organizations of all sizes and in all sectors, for the development, implementation, maintenance and continual improvement of healthy and safe workplaces.

ZWS ISO 45004:2024
Occupational health and safety management — Guidelines on performance evaluation
Price Code: Gr. 7
30 pages
Identical to ISO 45004:2024

This document gives guidance regarding how organizations can establish monitoring, measurement, analysis and evaluation processes, including the development of relevant indicators for the assessment of occupational health and safety (OH&S) performance. It enables organizations to determine if intended results are being achieved, including continual improvement of OH&S performance. This document is applicable to all organizations regardless of type, industry sector, level of risk, size or location. It can be used independently or as part of OH&S management systems, including those based on ISO 45001:2018, or other standards or guidelines.

ZWS ISO PAS 45005:2020
Occupational health and safety management – General guidelines for safe working during the COVID 19 pandemic
Price Code: Gr. 7
39 pages
Identical to ISO/PAS 45005

This document gives guidelines for organizations on how to manage the risks arising from COVID-19 to protect work-related health, safety and well-being. This document is applicable to organizations of all sizes and sectors, including those that:

a) have been operating throughout the pandemic; b)are resuming or planning to resume operations following full or partial closure; c) are re-occupying workplaces that have been fully or partially closed;
d) are new and planning to operate for the first time. This document also provides guidance relating to the protection of workers of all types (e.g. workers employed by the organization, workers of external providers, contractors, self-employed individuals, agency workers, older workers, workers with a disability and first responders), and other relevant interested parties (e.g. visitors to a workplace, including members of the public). This document is not intended to provide guidance on how to implement specific infection control protocols in clinical, healthcare and other settings. NOTE: Applicable legislation and guidance is provided by government, regulators and health authorities for workers in these settings or in related roles.

ZWS ISO 45006:2023
Occupational health and safety management — Guidelines for organizations on preventing, controlling and managing infectious diseases
Price Code: Gr. 8
36 pages
Identical to ISO 45006:2023

This document gives guidelines for organizations on how to prevent or control exposure to infectious agents at the workplace and manage the risks associated with infectious diseases that:
—present a risk of severe ill health or death and can impact the health, safety and well-being of workers and other relevant interested parties;
—present a lower risk to health yet have a significant impact on the organization, its workers and other relevant interested parties.
This document is applicable to organizations of all sizes and sectors.
NOTE: This document does not provide comprehensive guidance to those parts of an organization that implement mandated infection controls such as hospitals and medical or biological laboratories because there is an inherent potential for exposure to infectious diseases. Applicable legislation and guidance are provided by government, regulators and health authorities for specific infection controls for the protection of workers in such settings and for work activities on or with pathogenic microorganisms.

ZWS ISO PAS 45007:2026
Occupational health and safety management - Risks arising from climate change and climate change action - Guidance for organizations
Price Code: Gr. 7
36 pages
Identical to ISO 45007:2026

This document gives guidance to organizations on planning for and addressing occupational health and safety (OH&S) risks arising from climate change and climate change action, including:
—OH&S risks which arise as a result of climate change adaptation efforts, including changing ways of working and work processes, and infrastructure upgrades;
—OH&S risks arising from climate change mitigation actions;
—OH&S opportunities arising from both climate change adaptation and mitigation actions.
This document is applicable to all organizations taking a systematic approach to addressing OH&S risks arising from climate change. It is applicable to organizations of all sizes including small and medium-sized enterprises (SMEs).

ZWS ISO 50001:2018/ AMD 1:2024
Energy Management Systems – Requirements with guidance for use
Price Code: Gr.10
34 pages
Identical to ISO 50001:2018

Specifies requirements for establishing, implementing, maintaining and improving an energy management system whose purpose is to enable an organization to follow a systematic approach in achieving continual improvement of energy performance including energy efficiency energy use and consumption.

ZWS ISO 50002:2014
Energy audits – Requirements with guidance for use
Price Code: Gr.10
26 pages
Identical to ISO 50002:2014

Specifies requirements for carrying out an energy audit in relation to energy performance. Applicable to all types of establishments and organizations and all forms of energy and energy use.

ZWS ISO 50003:2014
Energy management systems – Requirements for bodies providing audit and certification of energy management systems
Price Code: Gr.6
20 pages
Identical to ISO 50003:2014

Specifies requirements for competency, consistency and impartiality in the auditing and certification of EMS for bodies providing these services. It addresses the auditing process, competence requirements for personnel involved in the certification process for EMS the duration of audits and multi-site sampling

ZWS ISO 50004:2014
Energy management systems – Guidance for the implementation, maintenance and improvement
Price Code: Gr.7
44 pages
Identical to ISO 50004:2014
The standard provides practical guidance and examples for establishing, implementing, maintaining and improving EMS in accordance with the systematic approach of ISO 50001

ZWS ISO 50006:2014
Energy management systems – Measuring performance using energy baselines
Price Code: Gr.7
34 pages
Identical to ISO 50006:2014

The standard provides guidelines to organisations on how to establish, use and maintain energy performance indicators (EnPIs) and energy baselines (EnBs) as part of the process of measuring energy performance.

ZWS ISO 50007:2017
Energy Services– Guidelines For The Assessment And Improvement Of The Energy Service To Users
Price Code: Gr.7
46 pages
Identical to ISO 50007:2017

The standard addresses the relevant elements of energy service provided by energy suppliers to users.It envisages energy service as including two broad categories.1)Energy supply 2)Advice on and improvement to energy efficiency.

ZWS ISO/TS 50008:2018
Energy management and energy savings – Building energy data management for energy performance – Guidance for a systemic data exchange approach
Price Code: Gr.6
14 pages
Identical to ISO/TS 50008:2018

It gives guidelines for how the energy management team (EnMT) in an organization can define, request and regularly access the data needed to implement an energy management (EnMS) designed to continually improve energy performance in buildings.

ZWS ISO 50015:2014
Energy management systems – Measurement and verification of energy performance of organisations
Price Code: Gr.6
22 pages
Identical to ISO 50015:2014

The standard establishes general principles and guidelines for the process of measurement and verification (M&V) of energy performance of an organisation or its components.

ZWS ISO 50021:2014
Energy management and energy savings — General guidelines for selecting energy savings evaluators
Price Code: Gr.6
22 pages
Identical to ISO 50021:2019

This document gives guidelines for selecting energy savings evaluators to determine ex-post (realized) energy savings for projects, organizations and regions. It gives general principles and identifies the key factors to consider. It also defines roles and responsibilities, recommends the required competence and provides key elements for assessing the knowledge and skills of energy savings evaluators.

ZWS ISO 50044:2019
Energy saving projects (EnSPs) – Guidelines for economic and financial evaluation
Price Code: Gr.7
43 pages
Identical to ISO 50044:2019

The standard gives guidelines for how to compare and prioritize energy saving projects (EnSPs) before implementation, using economic and financial evaluation. It includes a common set of principles.

ZWS ISO TS 50045:2019
Technical guidelines for the evaluation of energy savings of thermal power plants
Price Code: Gr.7
23 pages
Identical to ISO 50045:2019
This document gives general technical guidelines for evaluating energy savings of thermal power plants before and/or after implementing energy performance improvement action(s) (EPIAs). It includes evaluation, unit component efficiency, indexes calculation, analyses and reporting.

ZWS ISO 50046:2019
General methods for predicting energy savings
Price Code: Gr. 8
56 pages
Identical to ISO 50046:2019

This document specifies general methods for the calculation of predicted energy savings (PrES). It provides a process that should result in PrES satisfactory for the relevant stakeholders.

ZWS ISO 50049:2020
Calculation methods for energy efficiency and energy consumption variations at country, region and city levels: Relation to energy savings and other factors
Price Code: Gr.8
56 pages
Identical to ISO 50049:2020

Concerned with the evaluation of energy consumption and energy intensity changes through explanatory factors, as well as the calculation of energy efficiency index at national and regional levels.

ZWS ISO 50100:2026
Energy management systems and energy savings — Decarbonization — Requirements with guidance for use
Price Code: Gr.10
53 pages
Identical to ISO 50100:2026

This document specifies requirements and provides guidance that enable an organization to reduce its energy-related greenhouse gas (GHG) emissions (ERGE).
This document is applicable:
a) to any organization regardless of its type, size, complexity, geographical location, organizational culture or the products and services it provides;
b) to energy-related Scope 1 emissions and Scope 2 emissions;
c) irrespective of the quantity, use or types of energy consumed.
This document requires demonstration of absolute ERGE reduction aligned with ERGE target(s).
Annex A provides information on the relationship between ISO 50001:2018 and this document.
Annex B provides information on GHG emissions and GHG emission factors.
Annex C provides guidance related to the decarbonization planning.

ZWS ISO 53800:2024
Guidelines for the promotion and implementation of gender equality and women's empowerment
Price Code: Gr.8
59 pages
Identical to ISO 53800:2024

This document gives guidance on how to promote and implement gender equality and women's empowerment. It provides guidelines for organizations to develop the capabilities to achieve a culture of gender equality and women's empowerment. The guidelines include the framework, resources, policies, tools and good practices for contextualizing, promoting and implementing gender equality. This document focuses on the inequality resulting from the gender specific roles assigned to women, girls, men and boys and is applicable to all types of organizations (public or private), regardless of their size, location or field of activity. This document does not address the specific aspects of relations with labour unions or work councils, nor the country-specific regulations and compliance relating to gender diversity.

ZWS ISO 55000:2024
Asset management – Overview, principles and terminology Price Code: Gr.10
16 pages
Superseeds ISO 55000:2014
Identical to ISO 55000:2024

This document defines terms and establishes principles and outcomes for asset management. It describes:
—the benefits of asset management and an asset management system;
—the relationship between asset management, the asset management system and asset portfolio;
—asset management improvement and maturity.
This document is applicable to all types of assets and all types and sizes of organizations. This document does not provide financial, accounting, human resources nor technical guidance for managing specific asset types.
NOTE:For the purposes of this document, ISO 55001 and ISO 55002, the term “asset management system” is used to refer to a management system for asset management.

ZWS ISO 55001:2024
Asset management – Management systems - Requirements
Price Code: Gr.10
19 pages
Superseeds ISO 55001:2014
Identical to ISO 55001:2024

This document specifies requirements for an asset management system. This document is applicable to all types of assets and all types and sizes of organizations. Consistent with the organization’s asset management policy, the intended results of an asset management system include:
—realized value from assets throughout their life for the organization and its stakeholders;
—achievement of asset management objectives and fulfilment of applicable requirements;
—continual improvement of asset management, the asset management system and the performance of assets. This document does not specify financial, accounting nor technical requirements for managing specific asset types.
NOTE: For the purposes of ISO 55000, this document and ISO 55002, the term “asset management system” is used to refer to a management system for asset management.

ZWS ISO 55002:2018
Asset management – Management systems – Guidelines for the application of ISO 55001
Price Code: Gr.10
75 pages
Identical to ISO 55002:2018

This document gives guidelines for the application of an asset management system, in accordance with the requirements of ISO 55001. This document can be applied to all types of assets and by all types and sizes of organizations.

ZWS ISO 55010:2024
Asset management — Guidance on the alignment of financial and non-financial functions in asset management
Price Code: Gr.10
62 pages
Identical to ISO 55010:2024

This document gives guidance on the alignment between financial and non-financial asset management functions, to improve internal controls as part of an organization’s management system. This document is applicable to all types of assets and by all types and sizes of organizations.

ZWS ISO 55011:2024
Asset management — Guidance for the development of public policy to enable asset management
Price Code: Gr.6
36 pages
Identical to ISO 55011:2024

This document provides guidance to advance the adoption of asset management through public policy, specifically focused on the external context of all organizations that manage assets. This guidance defines and describes an enabling environment for asset management, and outlines how it can be created, sustained and improved through the use of public policy (see Clause 4). It outlines how participants in that environment can act and interact with one another to influence the development and deployment of public policies to enable asset management in their countries and jurisdictions (see Annexes A and B). This document provides a consistent approach (see Annexes C and D) to the development of public policy instruments (see 5.2.1) that enable asset management and help achieve government objectives. These can include implementing a framework of recommended practices for effective public investment (see Table 1), achieving the United Nations Sustainable Development Goals (UN SDGs), and otherwise generating greater value to society.

ZWS ISO 55013:2024
Asset management — Guidance on the management of data assets
Price Code: Gr.6
21 pages
Identical to ISO 55013:2024

This document gives guidance on managing data to support an organization in meeting its asset management objectives and by extension its organizational objectives. This document is applicable to any organization, regardless of its type or size. This document does not provide methodologies to derive or appraise value for data assets. This document does not provide methodologies to derive financial values for data assets. This document does not provide direction to organizations on the need (or not) for calculating financial values for asset data.

ZWS ISO 56001:2024
Innovation management system - Requirements
Price Code: Gr.6
23 pages
Identical to ISO 56001:2024

This document specifies requirements for an innovation management system that an organization can use to develop and demonstrate its innovation capability, enhance its innovation performance, and realize value for users, customers and other interested parties. The requirements in this document are generic. This document is applicable to any organization, regardless of type or size, products and services provided, or the types of innovations and innovation approaches used.

ZWS ISO 56002:2019
Innovation management - Innovation management system – Guidance
Price Code: Gr.6
28 pages
Identical to ISO 56002:2019

This document provides guidance for the establishment, implementation, maintenance, and continual improvement of an innovation management system for use in all established organizations. It is applicable to:

a)organizations seeking sustained success by developing and demonstrating their ability to effectively manage innovation activities to achieve the intended outcomes;
b)users, customers, and other interested parties, seeking confidence in the innovation capabilities of an organization;
c)organizations and interested parties seeking to improve communication through a common understanding of what constitutes an innovation management system;
d)providers of training in, assessment of, or consultancy for, innovation management and innovation management systems;
e)policy makers, aiming for higher effectiveness of support programs targeting the innovation capabilities and competitiveness of organizations and the development of society.
All the guidance within this document is generic and intended to be applicable to:
a)all types of organizations, regardless of type, sector, or size. The focus is on established organizations, with the understanding that both temporary organizations and start-ups can also benefit by applying these guidelines in all or in part;
b)all types of innovations, e.g. product, service, process, model, and method, ranging from incremental to radical;
c)all types of approaches, e.g. internal and open innovation, user-, market-, technology-, and design-driven innovation activities.
It does not describe detailed activities within the organization, but rather provides guidance at a general level. It does not prescribe any requirements or specific tools or methods for innovation activities.

ZWS ISO 56003:2019
Innovation management — Tools and methods for innovation partnership — Guidance
Price Code: Gr.6
22 pages
Identical to ISO 56003:2019

This document provides a guidance for innovation partnerships. It describes the innovation partnership framework (see Clause 4 to Clause 8) and the sample corresponding tools (see Annex A to Annex E) to
—decide whether to enter an innovation partnership,
—identify, evaluate and select partners,
—align the perceptions of value and challenges of the partnership,
—manage the partner interactions.
The guidance provided by this document is relevant for any type of partnerships and collaborations and it is intended to be applicable to any organizations, regardless of its type, size, product/service provided, such as:
a)start-ups collaborating with larger organizations;
b)SMEs or larger organizations;
c)private sector entities with public or academic entities;
d)public, academic or not-for-profit organizations.
Innovation partnerships start with a gap analysis, followed by the identification, and engagement, of potential innovation partners and the governance of their interaction.
NOTE: The essence of an innovation partnership is for all parties to mutually benefit from working together in the context of an opportunity for innovation.
This document is not applicable to organizations seeking innovation by merger or acquisition.

ZWS ISO 56004:2019
Innovation Management – Assessment – Guidance
Price Code: Gr.7
31 pages
Identical to ISO 56004:2019

This document will help the user understand why it is beneficial to carry out an Innovation Management Assessment (IMA), what to assess, how to carry out the IMA, and thus maximize the resulting benefits, which are universally applicable to:
—organizations seeking sustained success in their innovation activities;
—organizations performing IMAs;
—users and other interested parties (e.g. customers, suppliers, partners, funding organizations, universities and public authorities) seeking confidence in an organization's ability to manage innovation effectively;
—interested parties seeking to improve communication through a common understanding of Innovation Management (IM), via an assessment;
—providers of training, assessment, or advice in IM;
—developers of related standards;
—academics interested in research related to IMA.
Further, this document is intended to be applicable to:
—all types of organizations, regardless of sector, age, size, or country;
—all approaches to IM regardless of their level of sophistication, and complexity;
—all modalities of managing innovation whether centralized or decentralized;
—all ways to innovate, e.g. internal, collaborative, open, user-, market- or technology-driven innovation;
—all types of innovation such as product, service, process, business model, organizational innovation from incremental to radical.

ZWS ISO 56005:2020
Innovation management — Tools and methods for intellectual property management— Guidance
Price Code: Gr.7
41 pages
Identical to ISO 56005:2020

Efficient management of IP is key to support the process of innovation, is essential for organizations' growth and protection, and is their engine for competitiveness. This document proposes guidelines for supporting the role of IP within innovation management. It aims to address the following issues concerning IP management at strategic and operational levels:
—Creating an IP strategy to support innovation in an organization;
—Establishing systematic IP management within the innovation processes;
—Applying consistent IP tools and methods in support of efficient IP management.
This document can be used for any type of innovation activities and initiatives.

ZWS ISO 56006:2021
Innovation management — Tools and methods for strategic intelligence management — Guidance
Price Code: Gr.4
12 pages
Identical to ISO 56006:2021

This document provides guidelines for supporting strategic intelligence within innovation management. It aims at addressing the following areas concerning strategic intelligence at strategic and operational levels:
—creating a strategic intelligence management strategy to support innovation in an organization;
—establishing strategic intelligence management in support of the innovation activities and initiatives within the innovation management system and the related innovation processes;
—applying strategic intelligence tools and methods in support of the innovation activities and initiatives within the innovation management system and the related innovation processes.
Strategic intelligence is transversal and cross-sectorial by nature. It is not limited to innovation activities and can apply to all areas

where knowledge is required for strategic decision-making and consequent actions. This document is not applicable to:
—certification;
—data protection.

ZWS ISO 56007:2023
Innovation management — Tools and methods for managing opportunities and ideas — Guidance
Price Code: Gr.8
59 pages
Identical to ISO 56007:2023

This document provides guidance on managing opportunities and ideas by:
—explaining the reasons for and the value of managing ideas effectively;
—describing how to prepare for front end innovation activities;
—addressing people and organization issues, including innovation leadership, culture and strategy;
—detailing innovation activities and their interrelationships;
—outlining activity and process evaluation considerations that are important for innovation success.
A sub-set of processes are addressed as described in ISO 56002, i.e. identifying opportunities, creating concepts, and validating them. The activities within these processes, when managed together, bring forward viable innovation concepts for development. Developing these innovation concepts into solutions and deploying these solutions is addressed by ISO 56002 and is outside the scope of this guidance document. This document provides guidance for any innovation type along the continuum from incremental to radical innovation, as defined in ISO 56000. This guidance is intended for:
—any user involved in innovation, whether for an organization or individual;
—any organization type or scale;
—any understanding of value creation and realization, whether for profit, social impact, changes in strategic direction, or any other purpose. This document can help organizations to systematically manage their opportunities and ideas to realize greater value from front end innovation activities to arrive at go/no–go decisions for development. There is no one method or set of tools for use in all situations. Choice is impacted by a range of related considerations to be addressed in this document.

ZWS ISO 59004:2024
Circular economy - Vocabulary, principles and guidance for implementation
Price Code: Gr.8
61 pages
Identical to ISO 59004:2024

This document defines key terms, establishes a vision and principles for a circular economy, and gives guidance, including possible actions, for an organization to implement. It is applicable to organizations seeking to understand and commit or contribute to a circular economy while contributing to sustainable development. These organizations can be either private or public, acting individually or collectively, regardless of type or size, and located in any jurisdiction, or position within a specific value chain or value network.

ZWS ISO 59010:2024
Circular economy - Guidance on the transition of business models and value networks
Price Code: Gr.7
39 pages
Identical to ISO 59010:2024

This document gives guidance for an organization seeking to transition its value creation models and value networks from linear to circular.

This document is applicable to any organization regardless of size, sector or region.

ZWS ISO 59014:2024
Environmental management and circular economy -Sustainability and traceability of the recovery of secondary materials — Principles, requirements and guidance
Price Code: Gr.7
39 pages
Identical to ISO 59014:2024

This document provides principles, requirements and guidance for organizations in fostering the sustainability and traceability of activities and processes for the recovery of secondary materials. This document also specifies requirements and provides guidance for organizations that engage with individuals involved in subsistence activities (SAs) as part of the organization's activities and processes for the recovery of secondary materials, with the aim of ensuring safe and healthy working conditions and the continual improvement of the well-being, livelihoods and professional practices of those individuals. This document is applicable to organizations seeking to recover secondary materials systematically and responsibly using life cycle and circular economy perspectives, regardless of their size, type and location. This document does not provide quality criteria for specific types of secondary materials recovered. Energy recovery and disposal are outside the scope of this document. The collection, classification, sorting and non-destructive processes can lead to the recovery of components and products. The preparation and processing of products or components for their reuse or reprocessing (e.g. for repurposing, remanufacturing, refurbishment and repair) are outside the scope of this document.

ZWS ISO 59020:2024
Circular economy — Measuring and assessing circularity performance
Price Code: Gr.8
84 pages
Identical to ISO 59020:2024

This document specifies requirements and gives guidance to organizations for measuring and assessing a defined economic system to determine their circularity performance at a specific time. Measurement and assessment are performed by the collection and calculation of data with the help of mandatory and optional circularity indicators. This document provides a framework to guide users within organizations of all types and sizes through the measurement and assessment process, including system boundary setting and choice of indicators, as well as processing and interpreting data in a consistent and reproducible manner to generate meaningful and verifiable results. The framework is applicable to multiple levels of an economic system, ranging from regional, interorganizational and organizational to the product level. To measure and assess social, environmental and economic impacts that are caused by the actions of the organization to achieve circular goals and objectives, the document provides a list of complementary methods that can be used in addition to this document.

ZWS ISO 59040:2025
Circular economy - Product circularity data sheet
Price Code: Gr.8
84 pages
Identical to ISO 59020:2024

This document establishes a general methodology for information exchange supporting the interoperability of circular economy related information, based on the use of a product circularity data sheet (PCDS). This document specifies requirements for completing a PCDS by an organization, regardless of its type, size and nature, when acquiring or supplying products in order to permit the

exchange of circular economy related information about those products, without disclosing confidential business information. This document also specifies requirements for the reporting format to be used when creating a PCDS template, based on the selection and use of various product circularity statements, according to the characteristics of the product. In addition, this document gives guidance on managing and sharing a PCDS, as well as guidance on creating a PCDS template.

ZWS IWA 42:2023
Net zero guidelines
Price Code: Gr. 7
38 Pages
Identical to IWA 42:2023

This document provides guiding principles and recommendations to enable a common, global approach to achieving net zero greenhouse gas emissions through alignment of voluntary initiatives and adoption of standards, policies and national and international regulation. This document provides guidance on what governance organizations and other organizations can do to effectively contribute to global efforts to limit warming to 1,5 °C by achieving net zero no later than 2050. It provides guidance on a common and equitable contribution and recognizes the capability of individual organizations in contributing to achieving global net zero. This document, when used in combination with applicable science-based pathways, provides guidance for organizations seeking to set robust climate strategies.

ZWS IWA 48:2024
Framework for implementing environmental, social and governance (ESG) principles
Price Code: Gr. 7
59 Pages
Identical to IWA 48:2024

This document provides a high-level framework and set of principles to give guidance on how to implement and embed environmental, social and governance (ESG) within the culture of an organization to support management of ESG performance, measurement and reporting, enabling consistency, comparability and reliability of ESG reporting and practices globally. This document provides guidance that identifies high-level principles and thinking that cover all elements of ESG, thus providing integrated solutions, with measurable key performance indicators (KPIs) to support the evaluation of maturity levels within the organization. This document is applicable to a wide range of organizations of all types and sizes across the globe including SMEs and organizations in low- and middle-income countries. It is complementary and interoperable with existing voluntary and regulatory reporting frameworks to facilitate global harmonization and alignment on ESG principles and approaches and is not in itself a reporting framework.

ARSO ADOPTIONS

ARSO ZW HS 72:2016
Fertilizers – Sampling from a conveyor by stopping the belt
Price Code: Gr. 3
2 pages
Identical to ARS 72:1986

Specifies a reference method for sampling all solid fertilizers transported on a conveyor belt from the place of manufacture or storage to some other location.

ARSO ZW HS 73:2016
Fertilizers – Determination of nitrate nitrogen content
Price Code: Gr. 3
4 pages
Identical to ARS 73:1986

Specifies the nitron gravimetric method for the determination of nitrate nitrogen content of fertilizer. It is suitable for use as a reference method and is applicable to all fertilizers.

ARSO ZW HS 74:2016
Fertilizers – Determination of bulk density (Loose)
Price Code: Gr. 3
3 pages
Identical to ARS 74:1986

Specifies a method for the determination of the bulk density (loose) of solid fertilizers, except powder fertilizers. The method is applicable to dry fertilizers only.

ARSO ZW HS 212:2016
Fertilizers – Marking – Presentation and Declaration
Price Code: Gr. 3
2 pages
Identical to ARS 212:1988

Specifies the procedure for marking containers or labels for fertilizers, where national legislation permits.

ARSO ZW HS 213:2016
Fertilizers and solid conditioners – Final samples – Practical arrangements
Price Code: Gr. 3
2 pages
Identical to ARS 213:1990

Establishes practical arrangements relating to final samples of solid fertilizers and soil conditioners.

ARSO ZW HS 461:2022
Maize Grains (corn)
Price Code: Gr. 5
8 pages
Identical to ARS 461:2022

This African Standard specifies the requirements and methods of sampling and test for maize grains (corn) of varieties grown from common maize grains, Zea mays indentata L., and/or Zea mays indurata L., or their hybrids intended for human consumption. It does not apply to processed maize (corn).

ARSO ZW HS 462:2023
Sorghum Grains
Price Code: Gr. 5
10 pages
Replacing ARS 462:2022.

This African Standard specifies requirements, methods of sampling and test for sorghum grains (whole or decorticated) of varieties (cultivars) grown from Sorghum bicolor (L.) Moench intended for human food. This standard does not apply to processed sorghum.

ARS ZW HS 463:2023
Pearl Millet Grains
Price Code: Gr. 5
10 pages
Replacing ARS 463:2022.

This African Standard specifies the requirements, methods of sampling and test for whole and decorticated pearl millet of the of the species Pennisetum glaucum (L.) R.Br. intended for food consumption. This standard also specifies grading requirements for pearl millet grains. It does not apply to processed pearl millet.

ARSO ZW HS 464:2023
Milled rice
Price Code: Gr. 5
10 pages
Replaces COMESA ZWS HS 404:2004
Replaces ARSO ZW HS 464:2022

This African Standard specifies the requirements and methods of sampling and test for milled rice of the varieties grown from Oryza spp. intended for human consumption.

ARS ZW HS 465:2024
Wheat grains – Specification
Price Code: Gr. 5
15 pages
Adoption of African Standard ARS 465:2023
Superseeds ARS ZW HS 465:2018
Superseeds ZWS 391:1996

This African Standard specifies the requirements and methods of sampling and test for wheat grains of varieties (cultivars) grown from common wheat (Triticum aestivum L.), club wheat (T. compactum Host.) and Triticum tauschii (soft wheat) intended for human consumption. Durum wheat (Triticum durum) is excluded from this standard.

ARSO ZW HS 466:2023
Milled maize (corn) products
Price Code: Gr 5
7 pages
Replacing ARSO ZW HS 466:2022

This African Standard specifies requirements, sampling and test methods for whole maize meal, granulated maize meal, sifted maize meal, maize grits and maize flour from the grains of common maize (Zea mays L.) intended for human consumption. This standard does not apply to fortified milled maize (corn) products and maize grits intended for brewing, manufacturing of starch and any other industrial use.

ZWS ARS HS 467:2018
Degermed maize and maize grints -Specification
Price Code: Gr. 5
5 pages
Adoption of African Standard ARS 467:2016

This standard specifies the requirements, methods of sampling and test for degermed maize (corn) meal and degermed maize (corn) grits for human consumption milled from kernels of common maize, Zea mays L.

ZWS ARS 468:2024
Sorghum flour
Price Code: Gr. 5
6 pages
Identical to ARS 468:2023
Supercedes Comesa ZW HS 716
Supersedes ARS 468:2018

This African Standard specifies requirements, methods of sampling and test for sorghum flour obtained from whole or decorticated sorghum grain of varieties Sorghum bicolor (L) Moench. for human consumption. It does not apply to grits or meal obtained from sorghum.

ARSO ZW HS 469:2026
Millet flour
Price Code: Gr. 5
15 pages
Identical to ARS 469:2023

This African Standard specifies requirements, methods of sampling and test for millet flour obtained from whole or decorticated pearl millet from varieties Penicum maliaceum or finger millet grown from Eleusine coracana (L.) Gaertner. or proso millet from Panicum millaceum for human consumption. It does not apply to grits obtained from pearl millet.

ARS ZW HS 470:2025
Wheat flour — Specification
Price Code: Gr. 4
7 pages
Identical to ARS 470:2025
Replaces ZWS 500:2021

This African Standard specifies the requirements and test methods of sampling and test for wheat flour prepared from common wheat (Triticum aestivum L.) or club wheat (Triticum compactum Host), or their mixtures intended for human consumption.

ARSO ZW HS 500:2016
Solid fertilizers – Sampling
Price Code: Gr. 4
7 pages
Identical to ARS 500:1991

Describes a method for sampling solid fertilizers which are packed for delivery to customers.

ARSO ZW HS 501:2016
Compound fertilizers – Methods of test
Price Code: Gr. 4
5 pages
Identical to ARS 501:1991

Specifies methods for the determination of moisture content, pH and magnesium for compound fertilizers.

ARSO ZW HS 504:2016
Fertilizers – Ammonium sulphate – Methods of test
Price Code: Gr. 4
2 pages
Identical to ARS 504:1991

Specifies the methods of test for am1oniu1 sulphate fertilizer for the following characteristics: free acidity, moisture content and arsenic.

ARSO ZW HS 505:2016
Fertilizers – Ammonium sulphate
Price Code: Gr. 4
2 pages
Identical to ARS 505:1991
Specifies requirements for ammonium sulphate fertilizer.

ZWS ARS HS 825:2018
Yams
Price Code: Gr. 7
5 pages
Adoption of African Standard ARS 825:2016

This standard applies to yarms of varieties grown from Dioscorea spp. Tyo be marketed or supplied fresh to the consumer ,yams for industrial processing being excluded. The purpose of this standard is to specify the minimum grade requirements of the tubers at the dispatching stage.

ARSO ZW HS 827:2020
Sweet Potato Flour
Price Code: Gr. 5
11 pages
Identical to ARS HS 827:2017

Specifies the requirements and methods of sampling and test for dried sweet potato chips intended for human consumption

ARSO ZW HS 828:2020
Dried Sweet Potato Chips
Price Code: Gr. 5
11 pages
Identical to ARS HS 828:2017

Specifies the requirements and methods of sampling and test for dried sweet potato chips intended for human consumption.

ARSO ZW HS 829:2020
Sweet Potato Crisps
Price Code: Gr. 5
11 pages
Identical to ARS HS 829:2017

Specifies the requirements and methods of sampling and test for crisps made from storage of sweet potato

ARSO ZW HS 831:2020
Fresh Bananas -Specification
Price Code: Gr. 5
11 pages
Identical to ARS HS 831:2017

Applies to commercial varieties of bananas grown from Musa spp. Of the Musaceae family, in the green state to be supplied fresh to the consumer, after preparation and packaging.

ARSO ZW HS 833:2020
Fried Banana Chips
Price Code: Gr. 5
11 pages
Identical to ARS HS 833:2017

Specifies the requirements and methods of sampling and test for fried banana chips

ARSO ZW HS 834:2020
Dried Bananas
Price Code: Gr. 5
11 pages
Identical to ARS HS 834:2017

Prescribes requirements and methods of sampling and tests for dried banana from Musa spp of the family Musaceae intended for direct human consumption or for other use in the food industry

ARSO ZW HS 852:2020
Fried Potato Chips
Price Code: Gr. 5
11 pages
Identical to ARS HS 852:2017

Specifies the requirements and methods of sampling and test for deep fried potato chips ready for consumption.

ARSO ZW HS 855:2020
Fresh Tannia
Price Code: Gr. 4
11 pages
Identical to ARS HS 855:2017

Applies to the tubercles of commercial varietis of lilac grown from Xanthosoma violaceum Schott and white tannia grown Xanthosoma sagittifolium.

ARSO ZW HS 857:2024
Finger Millet Grains
Price Code: Gr. 6
10 pages
Identical to ARS HS 857:2023
Supersedes ARS HS 857:2016

This African Standard specifies the requirements, methods of sampling and test for finger millet grains of varieties (cultivars) grown from Eleusine coracana (L.) Gaertner intended for human consumption.

ARS ZW HS 858:2024
Rough (Paddy) rice - specification
Price Code: Gr. 6
8 pages
Identical to ARS 858:2022
Supersedes ARS 858:2017

This African Standard specifies the requirements and methods of sampling and test for rough (paddy) rice of the varieties grown from Oryza spp intended for human consumption.

ARS ZWS HS 859:2024
Brown rice
Price Code: Gr. 6
10 pages
Identical to ARS 859:2023
Supersedes ARS 859:2015

This African Standard specifies the requirements and methods of sampling and test for brown rice of the varieties grown from Oryza spp., intended for human consumption or for further processing. This standard does not apply to parboiled rice

ARSO ZWS HS 864:2024
Dry beans
Price Code: Gr. 5
7 pages
Identical to ARS 864:2023
Supersedes ARS 864:2015

This African Standard specifies requirements and methods of sampling and test for dry beans (Phaseolus vulgaris) intended for human consumption. It does not apply to processed beans.

ARSO ZW HS 865:2015
Dry green grams
Price Code: Gr. 5
7 pages
Identical to ARSO 865:2014

Specifies the requirements and methods of sampling and test for dry chickpeas of varieties (cultivars) grown from Cicer arietinum (L) intended for human consumption.

ARSO ZW HS 866:2015
Dry chickpeas
Price Code: Gr. 5
7 pages
Identical to ARSO 866:2014

Specifies the requirements and methods of sampling and test for dry chickpeas of varieties (cultivars) grown from Cicer arietinum (L) intended for human consumption.

ARS ZWS HS 867:2024
Dry cowpeas
Price Code: Gr. 5
7 pages
Identical to ARS 867:2023
Supersedes ARSO 867:2015

This African Standard specifies the requirements and methods of sampling and test for dry cowpeas of the varieties (cultivars) grown from Vigna unguiculata (L.) Sync. Vigna sinensis (L.) intended for human consumption. It does not apply to processed cowpeas.

ARS ZWS HS 868:2024
Dry Pigeon Peas
Price Code: Gr. 5
7 pages
Identical to ARSO 868:2023
Supersedes ARSO 868:2015

This African Standard specifies the requirements, methods of sampling and test for dry pigeon peas of the varieties (cultivars) grown from Cajanus cajan (L.) intended for human consumption. It does not apply to processed pigeon peas.

ARSO ZW HS 869:2024
Dry whole Peas
Price Code: Gr. 5
6 pages
Identical to ARSO 869:2023
Supersedes ARSO 869:2015

This African Standard specifies the requirements and methods of sampling and test for dry whole peas of varieties (cultivars) grown

from Pisum sativum (L.) and Pisum sativum var. arvense (L.) intended for human consumption. It does not apply to processed whole peas.

ARSO ZW HS 870:2024
Lentils
Price Code: Gr. 5
6 pages
Identical to ARSO 870:2023
Supersedes ARSO 870:2015

This African Standard specifies the requirements and methods of sampling and test for shelled whole lentils of varieties (cultivars) grown from Lens culinaris Medic. Syn. Lens esculenta Moench. intended for human consumption.

ARS ZWS HS 871:2024
Dry split peas
Price Code: Gr. 5
6 pages
Identical to ARSO 871:2023

This African Standard specifies the requirements and methods of sampling and test for dry split peas of varieties (cultivars) grown from Pisum sativum L. and Pisum sativum var. arvense L. intended for human consumption.

ARSO ZW HS 873:2015
Faba beans - specification
Price Code: Gr. 5
6 pages
Identical to ARSO 873:2014

Specifies the requirements and methods of sampling and test for faba beans of cultivated varieties (cultivars) grown from Vicia faba l. intended for human consumption.

ARSO ZW HS 874:2015
Dry lima beans - specification
Price Code: Gr. 5
7 pages
Identical to ARSO 874:2014

Specifies the requirements and methods of sampling and test for lima beans of cultivated varieties (cultivars) grown from Phaseollus lunatus L. intended for human consumption.

ARS ZW HS 878:2025
Barley grains — Specification
Price Code: Gr. 8
57 pages
Identical to ARSO 878:2025

This African Standard specifies the requirements and methods of test for barley grains of varieties (cultivars) grown from Hordeum vulgare Lin and Hordeum bulbosum intended for human consumption.

ARS ZW HS 893:2026
Fresh Apples
Price Code: Gr. 5
20 pages
Identical to ARSO 893:2026

This African Standard specifies requirements, sampling and test methods for apples of varieties (cultivars) grown from Malus domestica Borkh, of the Rosaceae family, to be supplied fresh to the consumer. This standard does not apply to apples for industrial processing.

ARS ZW HS 894:2026
Fresh apricots
Price Code: Gr. 5
13 pages
Identical to ARSO 894:2026

This African Standard specifies requirements, sampling and test methods for fresh apricots. This standard applies to apricots of varieties (cultivars) grown from Prunus armeniaca L. and inter- specific hybrids derived from apricot (Prunus armeniaca) and plums (Prunus domestica or Prunus salicina) showing apricot characteristics to be supplied fresh to the consumer.
This standard does not apply to apricots for industrial processing.

ARS ZW HS 900:2026
Fresh strawberries - Specification
Price Code: Gr. 5
14 pages
Identical to ARSO 900:2026

This African Standard specifies requirements, sampling and test methods for fresh strawberries. This standard applies to strawberries of varieties (cultivars) grown from the genus Fragaria L. to be supplied fresh to the consumer.
This standard does not apply to strawberries for industrial processing.

ARS ZW HS 901:2026
Fresh berry fruits
Price Code: Gr. 5
13 pages
Identical to ARSO 901:2026

This African Standard specifies requirements, sampling and test methods for berry fruits of species and varieties (cultivars) grown from the following species to be supplied fresh to the consumer:
a) raspberries (Rubus idaeus L.)
b) blackberries (Rubus sect. Rubus)
c) loganberries (Rubus loganobaccus L. H. Bailey)
d) currants (Ribes rubrum L., Ribes nigrum L.)
e) gooseberries (Ribes uva-crispa L.)
f) bilberries (Vaccinium myrtillus L.)
g) blueberries (Vaccinium corymbosum L., Vaccinium formosum Andrews, Vaccinium angustifolium Aiton, Vaccinium virgatum Aiton)
h) cowberries, lingonberries (Vaccinium vitis-idaea L.)
i) cranberries (Vaccinium macrocarpon Aiton)
j) wild cranberries (Vaccinium oxycoccos L.)
k) cloudberries (Rubus chamaemorus L.)
l) hybrids of these species such as boysenberries (Rubus ursinus Cham. et Schltdl. x
m) rubus idaeus L.), tayberries (Rubus sect. Rubus x Rubus idaeus L.), jostaberries (Ribes nigrumL. x Ribes uva-crispa L.)

This standard does not apply to berry fruits for industrial processing.

ARS ZW HS 906:2026
Fresh annonas
Price Code: Gr. 5
13 pages
Identical to ARSO 906:2026

This African Standard specifies requirements, sampling and test methods for fresh annonas. This standard applies to the following fruits, classified as "Annonas", to be supplied fresh to the consumer:
a) Cherimoya of varieties (cultivars) grown from the species Annona cherimola Mill.

b) Sugar apple of varieties (cultivars) grown from the species Annona squamosa L.
c) Atemoya hybrid from the species Annona cherimola Mill. and Annona squamosa L.
d) Soursop of varieties (cultivars) grown from the species Annona muricata L.
This standard does not apply to annonas for industrial processing.

ARS ZW HS 923:2026
Fresh chinese cabbages -Specification
Price Code: Gr. 5
13 pages
Identical to ARSO 923:2026

This African Standard specifies requirements, sampling and test methods for fresh chinese cabbages of varieties (cultivars) grown from Brassica rapa subsp. pekinensis (Lour).
This standard does not apply to hanelt of the long and the round types after preparation and packaging to be supplied fresh to the consumer for industrial processing.

ARS ZW HS 924:2026
Fresh brussels sprouts
Price Code: Gr. 5
13 pages
Identical to ARSO 924:2026

This African Standard specifies requirements, sampling and test methods for fresh brussels sprouts being the axillary buds of varieties (cultivars) grown from Brassica oleracea var. gemmifera DC. to be supplied fresh to the consumer.
This standard does not apply to fresh brussels sprouts for industrial processing.

ARS ZW HS 925:2026
Fresh broccoli
Price Code: Gr. 5
15 pages
Identical to ARSO 925:2026

This African Standard specifies requirements, sampling and test methods for fresh broccoli of varieties (cultivars) grown from Brassica oleracea var.italica Plenck to be supplied fresh to the consumer.
This standard does not apply to fresh broccoli for industrial processing.

ARS ZW HS 928:2026
Fresh lettuces and endives -Specification
Price Code: Gr. 5
14 pages
Identical to ARSO 928:2026

This African Standard specifies requirements, sampling and test methods for lettuces of varieties (cultivars) grown from:Lactuca sativa L. var. capitata L. (head lettuces including crisphead and "Iceberg" type lettuces), Lactuca sativa L. var. longifolia Lam. (cos or romaine lettuces), Lactuca sativa L. var. crispa L. (leaf lettuces), crosses of these varieties, curled-leaved endives of varieties (cultivars) grown from Cichorium endivia L. var. crispa Lam and broad-leaved (Batavian) endives (escaroles) of varieties (cultivars) grown from Cichorium endivia L. var. latifolium Lam to be supplied fresh to the consumer. This standard does not apply to fresh lettuces and endives produce for industrial processing.

ARS ZW HS 933:2026
Fresh leafy vegetables -Specification
Price Code: Gr. 5
13 pages
Identical to ARSO 933:2026
Replaces ZWS 1040:2021

This African Standard specifies requirements, sampling and test methods for fresh leafy vegetables of varieties (cultivars) grown from the following species to be supplied fresh to the consumer:
a) Amaranth leaves (Amaranthus spp.).
b) Fresh nightshades (Solanum scabrum, S. americanum, S. villosum, Solanum retroflexum Dun.).
c) Fresh cabbage / Spider plant (Cleome gynandra L.).
d) Leaves of cowpeas (Vigna unguiculata(L.) Walp.).
e) Blackjack (Biddens pilosa, B. Biternata).
f) Jute leaves (Jew's Mallow) (Mallow leaves) Corchorus tridens.
g) Lamb's quarter (Chenopodium album L.).
h) Tackweed (Tribulus terrestris).
i) Pumpkin leaves (Cucurbita maxima).
j) Fresh spinach (Basella alba L.).
k) Watercress (Nasturtium officinale R. Br.).
l) Rocket (Eruca sativa Mill., Diplotaxis tenuifolia (L.) DC. and Diplotaxis muralis (L.) DC.).
m) Spinach (Spinacia oleracea L.).
n) Turnip tops or turnip greens (Brassica rapa L. Rapa Group).
o) Broccoli raab or ruvo kale (Brassica rapa L. Broccoletto Group).
p) Chard (Beta vulgaris subsp. cicla (L.) W.D.J. Koch Flavescens Group).
q) Pak choi (Brassica rapa L. subsp. chinensis (L.) Hanelt).
r)Swisschard (Beta vulgaris forma Cicla).
s) Sweet potato leaves (Ipomea batata).
t) Cassava leaves (Manihot esculentum).
u) Cabbage (Brassica oleraceae var Capitat).
This standard does not apply to fresh leafy vegetables for industrial processing.

ARSO ZW HS 935:2015
Edible full fat soya flour
Price Code: Gr. 5
7 pages
Identical to ARSO 935:2014

Specifies the requirements and methods of sampling and test for edible full fat soya flour intended for human consumption.

ARSO ZW HS 936:2015
Soy milk
Price Code: Gr. 4
6 pages
Identical to ARSO 936:2014

Specifies the requirements and methods of sampling and test for soy milk intended for human consumption.

ARSO ZW HS 937:2015
Soy protein products
Price Code: Gr. 5
8 pages
Identical to ARSO 937:2014

Specifies the requirements and methods of sampling and for test for soy protein products intended for human consumption.

ARSO ZW HS 938:2015
Textured soy protein products
Price Code: Gr. 5
8 pages
Identical to ARSO 938:2014

Specifies the requirements and methods of sampling and test for textured soy protein products for human consumption.

ARS ZW HS 939:2026
Feed maize — Specification
Price Code: Gr. 5
6 pages
Identical to ARSO 939:2025

This African Standard specifies requirements, sampling, and test methods for maize grains of varieties grown from common maize grains (Zea mays) intended for the preparation of animal feeds. It does not apply to maize intended for human consumption.

ARSO ZW HS 950:2017
African Traditional Medicine – Terms and Terminology
Price Code: Gr. 6
17 pages
Identical to ARSO 950:2017

Standard provides the various terms and terminology used in the field of African Traditional Medicine

ARSO ZW HS 951:2017
African Traditional Medicine – Good Manufacturing Practises (GMP)For Herbal Medicines
Price Code: Gr. 7
30 pages
Identical to ARSO 951:2017

Standard provides guidelines on good manufacturing practices aimed at ensuring the safety, efficacy and quality of herbal medicinal products for human consumption.

ARSO ZW HS 952:2017
African Traditional Medicine – Guidelines on Good Agricultural and Collection Practices (GACP) for Medicinal Plants
Price Code: Gr. 7
38 pages
Identical to ARSO 952:2017

Standard provides aimed at advising plant procedures and collectors on how to improve the safety, efficacy and quality standards of raw materials used in the production and preparation of herbal medicines.

ARSO ZW HS 953:2017
African Traditional Medicine – Certification Scheme For Medicinal Plant Produce
Price Code: Gr. 7
40 pages
Identical to ARSO 953:2017

Standard covers certification of medicinal plants produce both from cultivated and wild collected sources

ARSO ZW HS 954:2017
Minimum requirements for registration of plant based traditional medicinal products
Price Code: Gr. 6
22 pages
Identical to ARSO 954:2017

Specifies minimum criteria for plant based traditional medicinal products on safety of use, quality and therapeutic efficacy to facilitate the registration, marketing and distribution of standardized traditional medicines.

ARSO ZW HS 955:2017
African Traditional Medicine – Technical Guidelines For Safety, Efficacy and quality of raw materials and herbal medicines
Price Code: Gr. 7
33 pages
Identical to ARSO 955:2017

The standard provides technical guidelines to assure the safety, efficancy and quality of herbal raw materials and herbal medicines

ARSO ZW HS 956: Part 1:2017
African Traditional Medicine – Medicinal plant Standards
Part 1: Aloe Vera
Price Code: Gr. 7
43 pages
Identical to ARSO 956-1:2017

Standard provides requirements and related methods for Aloe Vera raw material to be used in customer products including health, cosmetics, health food, medical, veterinary and industrial products.

ARS ZWS HT 956: Part 2:2024
African Traditional Medicine — Medicinal plant standards
Part 2: Ambrosia maritima
Price Code: Gr. 7
24 pages
Identical to ARSO 956-2:2024

This ARSO Standard specifies requirements and related tests methods for Ambrosia maritima raw material intended for use in manufacturing of consumer, medicinal and industrial products.

ARS ZWS HT 956: Part 3:2024
African Traditional Medicine - Medicinal plant standards
Part 3: Urtica dioica and Urtica urens
Price Code: Gr. 7
30 pages
Identical to ARSO 956-3:2024

This ARSO Standard specifies requirements and related tests methods for Urtica dioica L. Urticaceae and Urtica urens L. Urticaceae raw material for use in manufacturing of consumer products including health, medicinal and cosmetic products.

ARS ZWS HT 956: Part 4:2024
African traditional medicine - Medicinal plant standards:
Part 4: Calotropis procera
Price Code: Gr. 7
28 pages
Identical to ARSO 956-4:2024

This African standard specifies requirements and related tests methods for Calotropis procera raw material to be used in consumer products including health, medicinal, veterinary and industrial products.

ARS ZWS HT 956: Part 5-1:2024
African traditional medicine- Medicinal plant standards - Anacardium occidentale
Part 5-1: Seed-nut
Price Code: Gr. 7
21 pages
Identical to ARSO 956-5.1:2024

This African Standard specifies requirements and related tests methods for seeds or nuts of Anacardium occidentale raw material

to be used in consumer products including health, food, medicinal and industrial products.

ARS ZWS HT 956: Part 5-3:2024
African Traditional Medicine- Medicinal plant standards- Anacardium occidentale
Part: 5-3: 2024: Cashew apple
Price Code: Gr. 7
24 pages
Identical to ARSO 956-5.3:2024

This African Standard specifies requirements and tests methods for cashew apple from the Cashew Tree [Anarcardium occidentale L] intended for use in consumer products including healthy food, medicinal and industrial products.

ARS ZWS HT 956: Part 6:2024
African Traditional Medicine- Medicinal plant standards
Part 6: Moringa oleifera
Price Code: Gr. 7
26 pages
Identical to ARSO 956-6:2024

This African Standard specifies requirements and related tests methods for Moringa oleifera raw material to be used in consumer products including food, health and health-food, medicinal and industrial products.

ARS ZWS HT 956: Part 7:2024
African Traditional Medicine - Medicinal Plant
Part 7: Prunus africana
Price Code: Gr. 7
17 pages
Identical to ARSO 956-7:2024

This African Standard specifies requirements and related test methods for Prunus africana raw material intended for in consumer products including health, health foods, medicinal and industrial products.

ARS ZWS HT 956: Part 8:2024
African Traditional Medicine - Medicinal Plant
Part 8: Vernonia Amygdalina
Price Code: Gr. 6
22 pages
Identical to ARS 956-8:2023

This African Standard specifies requirements and related tests methods for Adansonia digitata seed be used in consumer products including health, health food, medicinal and industrial products.

ARS ZWS HT 956: Part 10:2024
African traditional medicine- Medicinal plant standards
Part 10: Adansonia digitata seed oil
Price Code: Gr. 7
21 pages
Identical to ARS 956-10:2023

This African Standard specifies requirements and related tests methods for Adansonia digitata seed be used in consumer products including health, health food, medicinal and industrial products.

ARS ZWS HT 956: Part 11:2024
African traditional medicine — Medicinal plant standards
Part 11: Garcinia kola
Price Code: Gr. 7
31 pages
Identical to ARS 956-11:2023

This African Standard specifies minimum requirements and related tests methods for Garcinia kola raw material to be used in consumer products including health, health food, medicinal and industrial products.

ARS ZWS HT 956: Part 12:2024
African traditional medicine - Medicinal plant standards
Part 12: Hibiscus sabdariffa Linn variety Rahad and other species Hibiscus
Price Code: Gr. 7
28 pages
Identical to ARS 956-12:2023

This African Standard specifies minimum requirements and related tests methods for Hibiscus sabdariffa Linn variety Rahad and other species raw material to be used in consumer products including health, medicinal and cosmetic products.

ARS ZWS HT 956: Part 14:2024
African traditional medicine - Medicinal plant standards
Part 14: Scent leaf (Ocimum gratissimum)
Price Code: Gr. 6
16 pages
Identical to ARS 956-14:2023

This African Standard specifies requirements and related tests methods for Ocimum. gratissimum raw material to be used in consumer products including health, medicinal and cosmetic products.

ARS ZW HS 972:2026
Fresh artichokes
Price Code: Gr. 5
13 pages
Identical to ARS 972:2026

This African Standard specifies requirements, sampling and test methods for fresh artichoke heads of varieties (cultivars) grown from Cynara cardunculus L. Scolymus group to be supplied fresh to the consumer. The names 'Poivrade' and 'Bouquet' refer to young, cone-shaped artichokes of the violet type. This standard does not apply to artichokes for industrial processing.

ARS ZW HS 988:2023
Plastic crates
Price Code: Gr. 4
5 pages
Identical to ARSO 988:2023

This African Standard specifies the requirements and test methods for rigid plastic crates for holding and transportation of beverages, fruits, vegetables, bread and milk among others.

ARS ZW HS 1000: Part 1:2021
Sustainable cocoa
Part 1: Requirements for cocoa farmer as an entity/farmer group/ farmer cooperative — management Systems and performance
Price Code: Gr. 7
37 pages
Identical to ARSO 1000-1:2021

This African Standard specifies the requirements for Cocoa Farmer as an Entity/Farmer Group/ Farmer Cooperative also called

Recognized Entity to comply with Management Systems and for performance relating to structuring their management to enhance performance and meet the economic, social and environmental pillars for sustainable cocoa bean (Theobroma cacao Linnaeus) production

Part 2: Requirements for cocoa quality and traceability
Price Code: Gr. 7
25 pages
Identical to ARSO 1000-2:2021

This African Standard specifies the requirements for quality including classification, sampling, test methods, packaging and marking of cocoa beans (Theobroma cacao Linnaeus). It also specifies the basic requirements for the design and implementation of one or more traceability systems within the cocoa supply chain for sustainably produced cocoa beans from farm to the point of export (Free On Board), as well as to the factory gate at the local level for grinders

Part 3: Requirements for cocoa certification schemes
Price Code: Gr. 6
24 pages
Identical to ARSO 1000-3:2021

This draft African Standard specifies requirements for the Cocoa Certification Scheme for sustainable cocoa, in relation to cocoa supply chain actors and for the certification of Farmer as an Entity/Farmer Group/Cooperative. It is to be used jointly with ARS 1000-1 and ARS 1000-2. Only Certification Bodies that fulfil the requirements in this Standard shall audit Farmer as an Entity/Farmer Group/Cooperative, which produce sustainable cocoa beans. Only Farmer as an Entity/Farmer Group/Cooperative that fulfil the requirements in this Standard can make claims of sustainably produced cocoa beans.

ARS ZW HS 1041:2026
Raw milk
Price Code: Gr. 6
18 pages
Identical to ARSO 1041:2026

This African Standard specifies requirements, sampling and test methods of raw milk of (Cow milk (Bos spp.); Goat (Capra spp.); Sheep (Ovis spp.); Camel (Camelus dromedarius) for further processing.

ARS ZW HS 1050:2026
Camembert cheese
Price Code: Gr. 5
13 pages
Identical to ARSO 1050:2026

This African standard specifies requirements, sampling and test methods for Camembert cheese intended for direct human consumption or for further processing.

ARS ZW HS 1051:2026
Coulommiers cheese
Price Code: Gr. 5
13 pages
Identical to ARSO 1051:2026

This African standard specifies requirements, sampling and test methods for Coulommiers cheese intended for direct human consumption or for further processing.

ARS ZW HS 1052:2026
Danbo cheese
Price Code: Gr. 5
11 pages
Identical to ARSO 1052:2026

This African standard specifies requirements, sampling and test methods for Danbo cheese intended for direct human consumption or for further processing.

ARS ZW HS 1053:2026
Havarti cheese - Specification
Price Code: Gr. 5
13 pages
Identical to ARSO 1053:2026

This African standard applies to Havarti cheese intended for direct human consumption or for further processing.

ARS ZW HS 1054:2026
Provolone cheese
Price Code: Gr. 5
12 pages
Identical to ARSO 1054:2026

This African standard specifies requirements, sampling and test methods for Provolone cheese intended for direct human consumption or for further processing.

ARS ZW HS 1055:2026
Saint-Paulin cheese
Price Code: Gr. 5
13 pages
Identical to ARSO 1055:2026

This African standard specifies requirements, sampling and test methods for Saint-Paulin cheese intended for direct human consumption or for further processing.

ARS ZW HS 1056:2026
Samsø cheese
Price Code: Gr. 5
14 pages
Identical to ARSO 1056:2026

This African standard specifies requirements, sampling and test methods for Samsø cheese intended for direct human consumption or for further processing.

ARS ZW HS 1072:2026
Blend of skimmed milk and vegetable fat in powdered form
Price Code: Gr. 5
15 pages
Identical to ARSO 1072:2026

This African Standard specifies requirements, sampling and test methods for a blend of skimmed milk and vegetable fat in powder form or reduced / medium fat blend variety, intended for direct consumption or for further processing.

ARS ZW HS 1073:2026
Cheese
Price Code: Gr. 5
13 pages
Identical to ARSO 1073:2026

This African Standard specifies the requirements, sampling and test methods for cheese intended for direct human consumption or further processing. This general standard applies in addition to any further specifications for individual varieties of cheese, or groups

of varieties of cheese which is a subject of specific African Standard designated by a specific name.

ARS ZW HS 1076:2026
Extra hard grating cheeses
Price Code: Gr. 5
11 pages
Identical to ARSO 1076:2026

This African Standard specifies requirements, sampling and test methods for extra hard grating cheeses, intended for direct consumption or further processing.

ARS ZW 1098:2025
Agricultural Structures – Warehouses for the storage of bagged cereals and pulses
Price Code: Gr. 6
11 pages
Identical to ARSO 1098:2025

This standard specifies the requirements for warehouses for bag type storage of cereals and pulses. It does not include storage for seeds.

ARS ZW 1099:2025
Good warehousing practice for storage of bagged cereals and pulses
Price Code: Gr. 6
8 pages
Identical to ARSO 1099:2025

This Code covers warehouse and warehousing practices relevant to handling, and storage and transport of bagged cereals and pulses specifically for food consumption. It also considers the provisions of the Good Agricultural Practices (GAP) and Good Manufacturing Practices (GMP) to ensure food safety, quality of produce and worker's health, safety and welfare.

ARS ZWS 1106:2024
Tilapia production aquaculture farms - Good aquaculture practices
Price Code: Gr. 7
34 pages
Identical to ARS 1106:2024

This African Standard applies to good aquacultural practices (GAP) for Tilapia in pond, tanks and cage farming including harvesting and post-harvest handling in order to produce tilapia of good quality and safe for consumption with minimal effects to the environment. This standard does not cover hatchery and nursery.

ARS ZWS 1107:2024
Freshwater Aquatic Animal Production Farms - Good aqua cultural Practices
Price Code: Gr. 6
18 pages
Identical to ARS 1107:2024

This African standard applies to good aquacultural practices (GAP) at all stages in freshwater aquatic animal culture for shellfish, finfish, amphibians and reptiles in order to produce products of good quality and safe for human consumption. This standard, however, does not cover hatching and nursing.

ARSO ZW HS 1109:2020
Good Agricultural Practices For Food Crops
Price Code: Gr. 7
37 pages
Identical to ARS HS 1109:2018

Specifies the requirements for compliance, the reasponsible procurement of inputs, safe production, handling and marketing of fresh fruits and vegetables excluding herbs and spices.

ARS ZWS HT 1110: Part 1:2024
Dried small sardine and sardine-type pelagic fish
Part 1:2024: Freshwater
Price Code: Gr. 4
6 pages
Identical to ARS HT 1110-1:2024

This African Standard specifies the requirements and methods of test for dried small freshwater sardine and sardine-type pelagic fish.

ARS ZWS HT 1110: Part 2:2024
Dried small sardine and sardine-type pelagic fish
Part 2: 2024: Dried anchovies
Price Code: Gr. 4
6 pages
Identical to ARS HT 1110-2:2024

This African standard shall apply to all commercial species of anchovies belonging to the family Engraulidae that have been soaked in brine, and dried. This product is intended for consumption after cooking and for further processing This Standard shall not cover products that have undergone heat treatment prior to drying.
NOTE: The product shall be prepared from fresh or frozen split or whole fish of the family Engraulidae with some of the species listed, but not limited in Annex A.

ARS ZWS HT 1110: Part 3:2024
Dried small sardine and sardine-type pelagic fish
Part 3: 2024: Boiled, salted, and dried anchovies
Price Code: Gr. 4
11 pages
Identical to ARS HT 1110-3:2024

This African standard shall apply to all commercial species of anchovies belonging to the family Engraulidae that have been boiled in brine, and dried. This product is intended for consumption after cooking and for further processing. It does not cover products which have undergone an enzymatic maturation in brine.
NOTE: The product shall be prepared from fresh and/or frozen split or whole fish of the family Engraulidae with some

ARS ZW HS 1113:2026
Frozen octopus
Price Code: Gr. 4
5 pages
Identical to ARS 1113:2025

This African Standard specifies requirements, sampling and test methods for frozen octopus intended for human consumption.

ARS ZW HS 1114:2026
Frozen tuna loins
Price Code: Gr. 5
5 pages
Identical to ARS 1114:2025

This African Standard specifies requirements, sampling and test methods for frozen tuna loins intended for human consumption.

ARS ZW HS 1120: Part 1:2026
Fresh and frozen finfish
Part 1: 2026: Whole fish
Price Code: Gr. 5
5 pages
Identical to ARS 1120-1:2025

This African Standard specifies requirements and methods of sampling and test for fresh and frozen whole finfish intended for human consumption.

ARS ZW HS 1132: Part 9:2026
Test methods for fish and fishery products
Part 9: Determination of Histamine in fish and fishery products
Price Code: Gr. 5
7 pages
Identical to ARS 1132-9:2025

This African standard specifies the method of test for determination of histamine in fish and fishery products.

ARS ZW HS 1133:2026
Transport of live fish seeds for inland pisciculture purposes Price Code: Gr. 5
6 pages
Identical to ARS 1133:2025

This African standard describes the code of practice of conditions for transport of live seeds of inland fish species for pisciculture purposes.
NOTE: This Code excludes seeds of freshwater shellfish.

ARS ZW HS 1138:2026
Transport of fresh aquarium fish
Price Code: Gr. 3
3 pages
Identical to ARS 1138:2025

This African standard applies to the code of practice for transport of fresh water aquarium fish.

ARS ZW HS 1157:2026
Frozen frog legs
Price Code: Gr. 5
6 pages
Identical to ARS 1157:2025

This African Standard specify the requirements, sampling and test methods for frozen frog legs intended for human consumption.

ARS ZW HS 1158:2026
Shark liver oil for veterinary use
Price Code: Gr. 5
10 pages
Identical to ARS 1158:2025

This African Standard specifies the requirements and the methods of test for shark liver oil for veterinary use fortified with vitamin D. This standard does not cover shark liver oil meant for human consumption.

ARS ZW HS 1159:2026
Frozen lobster tails
Price Code: Gr. 5
10 pages
Identical to ARS 1159:2025

This African Standard prescribes the requirements, sampling and test method for tails of all the species of the genera Panulirus, and Peurulus intended for human consumption.

ARS ZW HS 1160:2026
Tuna/Bonito canned in oil
Price Code: Gr. 5
9 pages
Identical to ARS 1160:2025

This African Standard specifies the requirements, sampling and test method for tuna canned in oil.

ARS ZW HS 1172:2026
Edible Fish Powder
Price Code: Gr. 5
5 pages
Identical to ARS 1172:2025

This African Standard specifies requirements, for sampling and test methods for edible fish powder intended for human consumption.

ARS ZW HS 1175:2026
Frozen Minced Fish Meat
Price Code: Gr. 5
6 pages
Identical to ARS 1175:2025

This African Standard specifies the requirements, sampling and test method for frozen minced fish meat intended for human consumption.

ARS ZW HS 1177:2026
Beche-de-mer (Sea Cucumber) – Specification
Price Code: Gr. 5
6 pages
Adoption of ARS 1177:2025

This African Standard specifies requirements, sampling, and test methods for dried Beche-de-mer (sea cucumber) for human consumption.

ARS ZW HS 1181:2026
Fish processing industry -Water and ice requirements
Price Code: Gr. 5
6 pages
Identical to ARS 1181:2025

This African Standard specifies the requirements for water and ice used in the fish and fishery products handling.

ARS ZW HS 1183: Part 1:2026
Code of hygienic conditions for fish industry
Part 1: Pre-processing stages
Price Code: Gr. 5
12 pages
Identical to ARS 1183-1:2025

This African standard specifies the hygienic requirements for fish holds, handling of fish on board and transport of fish from fishing vessel to the processing site.

ARS ZW HS 1183: Part 2:2026
Code of hygienic conditions for fish industry
Part 2: Canning stage
Price Code: Gr. 5
12 pages
Identical to ARS 1183-2:2025

This African Standard specifies the hygienic conditions required for establishing and maintaining a fish canning unit.

ARS ZW HS 1184:2026
Fresh, frozen and canned mackerel
Price Code: Gr. 6
11 pages
Identical to ARS 1184:2025

This African standard specifies the requirements and methods of sampling and test for fresh, frozen and canned mackerel for human consumption.

ARS ZW HS 1185:2026
Fresh and frozen threadfin fish — Specification
Price Code: Gr. 5
6 pages
Identical to ARS 1185:2025

This African Standard specifies the requirements and the method of sampling and test for fresh and frozen threadfin fish.

ARS ZW HS 1186:2026
Accelerated freeze dried prawns/shrimps — Specification
Price Code: Gr. 5
8 pages
Identical to ARS 1186:2025

This African standard specifies the requirements and the methods of sampling and test for accelerated freeze-dried prawns/shrimps suitable for human consumption. The accelerated freeze-dried prawns/shrimps shall be of any edible species including the following:

(a) Penaeidae
(b) Pandalidae
(c) Crangonidae
(d) Palaemonidae

ARSO ZW HS 1199:2023
Edible hen eggs-in-shell
Price Code: Gr. 5
19 pages
Identical to ARS HS 1199:2023
Replaces ZWS 885:2003

This African Standard specifies safety and quality requirements, method of sampling and test methods for edible hen eggs in shell intended for human consumption. This standard applies to hen eggs-in-shell fit for direct human consumption and for use in the food and/or non-food industries. All eggs must originate from laying hens or laying hens of breeding stock kept on farms regularly operated under the applicable regulations pertaining to food safety and inspection.

ARSO ZW HS 1200:2023
Eggs-in-shell for processing – Specification
Price Code: Gr. 4
6 pages
Identical to ARS 1200:2023

This African Standard specifies safety and quality requirements and test methods for chicken hen eggs -in-shell for processing.

ARSO ZW HS 1203:2023
Hens egg products — Specification
Price Code: Gr. 4
31 pages
Identical to ARS 1203:2023
This African Standard specifies quality and safety requirements, sampling and test methods for products made from eggs obtained from hens of the species Gallus gallus intended for use in the manufacture of food for human consumption.

ARSO ZW HS 1205:2023
Egg powder
Price Code: Gr. 7
13 pages
Identical to ARS 1205:2023

This African Standard specifies the safety and quality requirements, sampling and test methods for egg powder.

ARSO ZW HS 1216:2023
Chicken essence
Price Code: Gr. 5
10 pages
Identical to ARS HS 1216:2023

This African Standard specifies the quality and safety requirements, referenced test methods and sampling for chicken essence.

ARSO ZW HS 1217:2023
Ante-mortem and post-mortem inspection of poultry
Price Code: Gr. 5
12 pages
Identical to ARS HS 1217:2023

This African Standard specifies the procedure for the ante-mortem and post-mortem inspection of poultry.

ARSO ZW HS 1218:2023
Handling, processing, quality evaluation, storage, and transportation of poultry and poultry products
Price Code: Gr. 5
6 pages
Identical to ARS HS 1218:2023

This code lays down guidelines for efficient handling, processing, quality evaluation, cold storage and transportation of poultry and poultry products.

ARS ZW HS 1219:2024
Poultry — Glossary of terms
Price Code: Gr. 5
5 pages
Identical to ARS HS 1219:2023

This African Standard covers definitions of terms relating to poultry and poultry meat products.

ARSO ZW HS 1224:2023
Chicken meat – Carcasses and cuts
Price Code: Gr. 4
6 pages
Identical to ARS HS 1224:2023

This African standard specifies the quality and safety requirements, methods of sampling and test for raw chicken meat, carcasses and parts intended for human consumption. This excludes products with added ingredients or “chicken preparations”.

ARS ZW HS 1225:2025
Turkey meat – Carcases and cuts - Specification
Price Code: Gr. 4
4 pages
Identical to ARS HS 1225:2025

This African Standard specifies requirements, sampling and test methods for fresh turkey (Meleagris gallopavo) carcasses and cuts intended for human consumption.

ARSO ZW HS 1226:2023
Duck meat – Carcasses and cuts
Price Code: Gr. 4
6 pages
Identical to ARS HS 1226:2023

This African standard specifies the quality and safety requirements, sampling and test methods for raw Duck meat carcass and parts intended for human consumption. This excludes Products with added ingredients or "duck preparations".

ARSO ZW HS 1242:2023
Goose meat – Carcasses and cuts
Price Code: Gr. 5
6 pages
Identical to ARS HS 1242:2023

This African standard specifies the quality and safety requirements, method of sampling and test methods for raw Goose meat carcasses and parts intended for human consumption. This excludes Products with added ingredients or "goose preparations".

ARSO ZW HS 1245:2023
Bovine (beef) meat – Carcasses and cuts
Price Code: Gr. 5
10 pages
Identical to ARS HS 1245:2023

This African Standard specifies methods of grading and grades of beef, quality and safety requirements and methods of test of carcasses thereof, intended for human consumption. This standard also defines major portions of meat cuts from the carcasses for sale.

ARSO ZW HS 1246:2023
Bovine (veal) meat – Carcasses and cuts
Price Code: Gr. 6
9 pages
Identical to ARS HS 1246:2023

This African Standard specifies grading of Veal, quality and safety requirements, sampling and referenced test methods of carcasses thereof, intended for human consumption. This standard also defines major portions of meat cuts from the carcasses for sale.

ARSO ZW HS 1247:2023
Caprine (goat) meat – Carcasses and cuts
Price Code: Gr. 5
9 pages
Identical to ARS HS 1247:2023
This African Standard defines the requirements, methods of sampling and test for goat carcasses and meat cuts intended for human consumption.

ARSO ZW HS 1250:2023
Rabbit meat – Carcasses and cuts
Price Code: Gr. 4
5 pages
Identical to ARS HS 1250:2023

This African Standard specifies the quality and safety requirements, sampling and test methods for raw rabbit meat (carcasses and cuts) intended for human consumption.

ARS/PAS ZW HS 1261:2026
Edible insects — Edible crickets — Specification
Price Code: Gr. 5
10 pages
Identical to ARS HS 1261:2025

This African standard specifies the requirements, sampling and test methods for edible crickets processed and offered for human consumption.

ARS/TR ZW HS 1291:2026
Edible insects' products - Specification
Price Code: Gr. 4
8 pages
Identical to ARS HS 1291:2025

This African standard specifies the requirements, sampling and test methods for edible insects' products intended for human consumption or for further processing.

ARS/PAS ZW HS 1292:2026
Edible insects — Good farming and wild harvesting practices
Price Code: Gr. 6
11 pages
Identical to ARS HS 1292:2025

This code of practice provides the requirements for sustainable establishment and operation of wild harvesting and/or domesticated insect farming for human and animal consumption.
Annex A provides general guidance for farming and wild harvesting of insects.
The code of practice is not applicable to post-harvest handling and processing of insects into value added products.

ARS/TR ZW HS 1293:2026
Insect products for animal feeds — Code of good practice in production, processing and use in animal feeding
Price Code: Gr. 7
32 pages
Identical to ARS HS 1293:2025

This code covers insect production, processing, placing on the market and use in animal feeding.

ARS ZW 1348:2025
Amaranth flour - Specification
Price Code: Gr. 6
3 pages
Identical to ARS HS 1348:2024

This African standard specifies the requirements and methods of sampling and test for flour prepared from dried grain obtained from amaranth plant (Amaranthus caudutus, A.hypochondaricus, A.cruentus and any other variety duly approved as a grain amaranth species) intended for human consumption.

ARS ZW 1350:2025
Teff flour – Specification
Price Code: Gr. 5
6 pages
Identical to ARS HS 1350:2024

This African standard specifies the requirements and methods of sampling and test for teff flour prepared from teff grains (Eragrostis tef) that include all the classifications magna (very white), nech (white), quey (brown) and sergegna (mixed) for human consumption

ARS ZW 1351:2024
Teff Grain – Specification
Price Code: Gr. 4
4 pages
Identical to ARS HS 1351:2024

This African Standard specifies the requirements and methods of sampling and test for teff grain (Eragrosties teff) for human consumption.

ARSO ZW HS 1357:2022
Vehicle testing station evaluation
Price Code: Gr. 7
14 pages
Adoption of ARS 1357:2021

This African Standard covers general provisions for the evaluation of the technical competence of a vehicle testing station. It also serves as a basis for determining the grading and registration of the vehicle testing station on the grounds of its adherence to the provisions of this standard, the suitability of the equipment and the competence of registered examiners of vehicles employed.

ARSO ZW HS 1362:2022
Automotive fuels – unleaded petrol – requirements and test methods
Price Code: Gr. 6
13 pages
Adoption of ARS 1362:2021
Supersedes ZWS 753:2012

This African Standard specifies requirements and test methods for marketed and delivered unleaded petrol. It is applicable to unleaded petrol for use in petrol engine vehicles designed to run on unleaded petrol.

ARSO ZW HS 1363:2022
Automotive fuels – diesel – requirements and test methods
Price Code: Gr. 5
10 pages
Adoption of ARS 1363:2021

This African Standard specifies requirements and test methods for marketed and delivered automotive diesel fuel. It is applicable to automotive diesel fuel for use in diesel engine vehicles designed to run on automotive diesel fuel containing up to 7.0 % (v/v) Fatty Acid Methyl Ester.

ARSO ZW HS 1379:2022
Definitions and classifications of power-driven vehicles and trailers
Price Code: Gr. 6
12 pages
Adoption of ARS 1379:2021

This African Standard provides the general definitions and the classifications which apply to all wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles.

ARS ZW HS 1465 :2023
Liquid detergents – hand dishwashing and light duty
Price Code: Gr. 5
11 pages
Identical to ARS 1465:2020

This African Standard specifies the requirements for hand dishwashing and light duty liquid detergents used for cleaning of dishes, hard surfaces such as painted surfaces, floors, ceilings, ceramic and plastics tiles, and the surfaces of equipment. This standard does not cover products with speckles.

ARS ZW HS 1468:2024
Anti-bacterial liquid toilet soap
Price Code: Gr. 6
17 pages
Identical to ARS 1464:2021

This Standard specifies the requirements, sampling and methods of test for antibacterial liquid toilet soap. It includes antibacterial (bacteriostatic) and antifungal (fungal static). The standard does not cover synthetic hand wash liquid detergents, shampoo and products for specific purposes such as those for industrial and surgical uses.

ARS ZW HS 1470 :2020
Hand sanitizers (Alcohol based)
Price Code: Gr. 5
10 pages
Adoption of FDARS HS 1470:2019

This standard prescribes the requirements and methods of test for alcohol based instant hand sanitizers. The standard does not cover non- alcohol- based sanitizers.

ZWS ARS HS 1474:2024
Anti-bacterial bathing bars
Price Code: Gr. 7
27 pages
Adoption of ARS HS 1470:2018

This African Standard specifies the requirements and methods of sampling and test for solid antibacterial bathing bars used for personal care. This Standard applies to antibacterial bathing bars supplied in the form of bars and produced from vegetable or animal oils or fats, fatty acids, or from a blend of all or part of these materials, with or without the addition of rosins or non-soapy/synthetic surfactants.

ARS ZW HS 1551:2019
Textiles and Textile Merchandise – Terms And definitions
Price Code: Gr. 9
6 pages
Identical to ARS 1551:2017

Standard provides a comprehensive list of general terms ,each followed by an applicable definition ,for use in the textile industry

ARS ZW HS 1553 :2019
Leather- Men's and women's belts-specification
Price Code: Gr. 5
6 pages
Identical to ARS 1553:2017

Standard covers the requirments for the materials, basic design, size and construction of lined ,unlimited and revesible men's and women leather belts

ARS ZW HS 1554 :2019
Leather- ladies fashion handbags-specification
Price Code: Gr. 5
16 pages
Identical to ARS 1554:2017

Standard specifies the requirments for the materials and construction of three basic types of handbag with a leather or coated outer fabric.

ARS ZW HS 1555:2023
Leather - gloves
Price Code: Gr. 6
18 pages
Identical to ARS 1555:2022
Replaces CAS Z19

This African Standard covers requirements for the materials, construction for five types of men's and ladies' lined or unlined gloves made from leather.
NOTE: The standard excludes industrial and safety gloves.

ARS ZW HS 1556:2023
Leather – Chrome tanned bend outer sole
Price Code: Gr. 4
3 pages
Identical to ARS 1556:2022

This African Standard specifies requirements for chrome-tanned, wax impregnated, bend outer sole leather.

ARS ZW HS 1557:2023
Leather – Vegetable tanned bend outer sole
Price Code: Gr. 4
4 pages
Identical to ARS 1557:2022
Replaces ZWS Z19

This African Standard specifies requirements for vegetable-tanned bend outer sole leather.

ARS ZW HS 1558:2023
Footwear – Children's school shoes with direct injection
Price Code: Gr. 6
23 pages
Identical to ARS 1558:2022
Replaces ZWS Z10

This African Standard covers the requirements for children's leather school shoes made according to the direct injection-moulded principle

ARS ZW HS 1559:2023
Footwear – Men's open shoes
Price Code: Gr. 6
17 pages
Identical to ARS 1559:2022

This African Standard specifies the requirements for men's open shoes made of all types of materials.

ARS ZW HS 1561:2019
Footwear –women open shoes specification
Price Code: Gr. 5
42 pages

This African Standard specifies the requirements for ladies' open shoes made of all types of materials

ARS ZW HS 1562:2019
Footwear –women closed shoes specification
Price Code: Gr. 5
42 pages

This African Standard specifies the requirements for ladies closed shoes made of all types of materials.

ARS ZW HS 1563:2023
Footwear – Children's shoes (2 years and below)
Price Code: Gr. 6
17 pages
Identical to ARS 1563:2022

This African Standard specifies the requirements for children's shoes (2 years and below). This standard applies to children's shoes of all constructions and all types of materials and designs.

ARS ZW HS 1564:2023
Footwear – Children's shoes (Above 2 years to 6 years)
Price Code: Gr. 6
15 pages
Identical to ARS 1564:2022

This African Standard specifies the requirements for children's shoes (above 2 to 6 years). This standard applies to children's shoes (above 2 to 6 years) of all constructions and all types of materials and designs.

ARS ZW HS 1565:2019
Footwear –sports shoes specification
Price Code: Gr. 5
13pages
Identical to ARS 1565:2019

The African Standard specifies the requirements for sports shoes used for light physical training activities, casual use and other non-professional activities.

ARS ZW HS 1567:2019
Part 1
School Wear Fabrics- basic requirements
Price Code: Gr. 5
42 pages
Identical to ARS 1567-1:2019

This part of ARS 1567 covers the definitions, basic requirements, requirements for packing, labelling, marking, and the inspection and testing of fabrics that are suitable for use in the manufacture of school clothing. Specific requirements are covered by the relevant individual parts of ARS 1567.

ARS ZW HS 1567:2019
Part 2
School Wear Fabrics-blazer fabrics
Price Code: Gr. 5
42 pages
Identical to ARS 1567-2:2019

This part of ARS 1567 covers the specific requirements for six types of plain dyed fabric and one type of striped fabric suitable for use in the manufacture of school-wear blazers.

ARS ZW HS 1567:2019
Part 3
Polester and Wool Blend Fabrics
Price Code: Gr. 5
42 pages
Identical to ARS 1567-3:2019

Standard specifies requirements and related test methods for Calotrophis procera raw material to be used in consumer products including health, medicinal, veterinary and industrial products

ARS ZW HS 1567:2019
Part 4
Polyester and Viscose Fabrics
Price Code: Gr. 5
42 pages
Identical to ARS 1567-4:2019

Standard specifies requirements and related test methods for Calotrophis procera raw material to be used in consumer products including health, medicinal,veterinary and industrial products

ARS ZW HS 1567 :2019
Part 6
School wear fabrics-shirting and blouse fabrics
Price Code: Gr. 3
7 pages
Identical to ARS 1567-6:2019

Standard covers the requirments for suitable for use in the manufacture of school wear shirts and blouses.

ARS ZW HS 1567 :2019
Part 7
School wear fabrics-shirting and blouse fabrics
Price Code: Gr. 3
7 pages
Identical to ARS 1567-7:2017

Standard covers the requirments for fabrics ,of two weave structures, containing textured yarns and suitable for use in the manufacture of school clothing.

ARS ZW HS 1568 :2019
Part 1
School clothing-general requirements
Price Code: Gr. 4
9 pages
Identical to ARS 1568:2019

Standard specifies requirements for the materials, workmanship, packing, carelabelling, marking and inspection of school clothing.

ARS ZW HS 1568 :2019
Part 2
School clothing-blazers
Price Code: Gr. 4
4 pages

Standard specifies requirements for the materials for and the sizes, make ,packaging ,sampling care and labelling for school blazers for boys and girls

ARS ZW HS 1568 :2019
Part 3
School clothing - Trousers and shorts
Price Code: Gr. 4
4 pages

Standard covers the requirements for the materials for and the sizes, make, packing, packaging, sampling care and labelling for boys trousers and shorts

ARS ZW HS 1568 :2019
Part 4
School clothing-Shirts
Price Code: Gr. 3
5 pages

Standard covers the requirements for materials for and sizes, make, packaging, sampling, care and labelling for school shirts for boys and girls.

ARS ZW HS 1568 :2019
Part 6
School clothing -Dresses ,Tunics and Gyms
Price Code: Gr. 5
9 pages

Standard covers the requirements for the materials for, and the sizes, make, packing, packaging, sampling, care and labeling for girls dresses, tunics and gyms.

ARS ZW HS 1568 :2019
Part 7
School clothing-slacks and skirts
Price Code: Gr. 4
5 pages

Standard specifies the materials, cut, make, trim of girls slcks and skirts.

ARS ZW HS 1568 :2019
Part 8
School clothing-Wrap knitted fabrics
Price Code: Gr. 4
5 pages
Standard covers the specific requirements for one type of wrap knitted favric suitable for use in the manufacture of school clothing.

ARS ZW HS 1568 :2019
Part 9
School clothing-Knee highs
Price Code: Gr. 4
9 pages
Standard specifies requirements for the materials, workmanship, packing, carelabelling, marking and inspection of school clothing

ARS ZW HS 1568 :2019
Part 10
School clothing-Jersey and Cardigans
Price Code: Gr. 4
11 pages

Standard covers the requirments for the materials, size and make of school jersey and cardigans.

ARS ZW HS 1568 :2019
Part 12
School clothing-Tracksuits
Price Code: Gr. 4
5 pages
Identical to ARS 1568-12:2017

Standard covers the requirments for the materials size and make of tracksuits

ARS ZW HS 1568 :2019
Part 13
School clothing-Athletic Wear
Price Code: Gr. 4
5 pages
Identical to ARS 1568-13:2017

Standard covers the requirments for the materials .size and make of athletic wear made from woven or knitted fabrics.

ZWS ARS 1573: Part 1:2024
Textiles woven cotton and similar household fabrics and articles Part 1:2024: Basic requirements for piece-goods and made-up articles
Price Code: Gr. 5
8 pages
Adoption of ARS 1573-1:2019

This part of African Standard covers the requirements for household fabric piece-goods and made-up articles.

Part 2: 2024: Winter sheeting, sheets and pillowcases
Price Code: Gr. 5
8 pages
Adoption of ARS 1573-2:2019

This part of African Standard covers the specific requirements of three types of raised sheeting fabric, and articles in the form of winter sheets and pillowcases.

Part 3: Cotton sheeting, sheets and pillowcases
Price Code: Gr. 5
8 pages
Adoption of ARS 1573-3:2019

This part of African Standard covers the specific requirements of four types of cotton sheeting fabric and articles in the form of sheets and pillowcases.

Part 4: 2024: Polyester /cotton blend sheeting, sheets and pillowcases
Price Code: Gr. 5
8 pages
Adoption of ARS 1573-4:2019

This part of African Standard covers the specific requirements of six types of polyester-and cotton sheeting fabric, and articles in the form of sheets and pillowcases.

Part 5: 2024: Terry towelling, towels, and other terry weave articles, sheets and pillowcases
Price Code: Gr. 5
7 pages
Adoption of ARS 1573-5:2019

This part of African Standard covers the specific requirements of five types of cotton terry towelling fabric, and articles in the form of bibs, face cloths, napkins, towels and bathmats.

Part 6: Cotton curtain fabrics, sheets and pillowcases
Price Code: Gr. 5
6 pages
Adoption of ARS 1573-6:2019

This part of African Standard covers the specific requirements of two types of cotton fabric suitable for curtaining.

Part 7: Cotton curtain lining
Price Code: Gr. 5
6 pages
Adoption of ARS 1573-7:2019
This part of African Standard covers the specific requirements of two types of cotton fabric suitable for curtain linings.

ARS ZW HS 1595 :2022
Vehicle homologation
Price Code: Gr. 7
42 pages
Adoption of ARS 1595:2021

This African Standard covers the homologation requirements for motor vehicles categories not previously registered or licensed in any country.

ARS ZW HS 1600:2026
Non-woven bags — Specification
Price Code: Gr. 6
6 pages
Adoption of ARS 1600:2025

This African Standard specifies requirements, sampling and test methods for non-woven bags. The standard does not cover feel and lustre of the fabric.

ARS ZW 1698:2024
Disinfectants / sanitizers
Price Code: Gr. 6
16 pages
Adoption of ARS 1698:2021

This African Standard specifies requirements, sampling and test methods for disinfectants/sanitizers intended for general use on inanimate surfaces including food contact and non-food contact surfaces. It is applicable to disinfectants/sanitizers represented for use on non-critical medical devices, environmental surfaces and other inanimate objects. This standard does not apply to disinfectants/sanitizers containing iodophor(s) and aldehydes as active ingredients.
NOTE 1: Using this standard, it is not possible to determine the bactericidal activity of the undiluted product. Some dilution is always produced by the addition of inoculum, standard hard water and sterile skimmed milk.
NOTE 2: If a product complies with the test requirements, it can be considered to be bactericidal, but it should not necessarily be inferred that the product is a suitable disinfectant/sanitizer for a defined purpose.

ARS ZW 1699:2024
Disinfectants/sanitizers based on iodophors – Specification
Price Code: Gr. 5
12 pages
Adoption of ARS 1699:2021

This African Standard specifies requirements, requirements, sampling and test methods for disinfectants/sanitizers that contain iodophor(s) as active ingredients and are intended for use on inanimate surfaces. This standard is applicable to all disinfectants/sanitizers where iodophors are present. An example of an iodophor is povidone- iodine.

ZWS ARS HS 1700:2024
Disinfectants/sanitizers based on glutaraldehyde for general use – Specification
Price Code: Gr. 5
13 pages
Adoption of ARS 1700:2021

This African Standard specifies requirements, requirements, sampling and test methods for disinfectants/sanitizers that contain iodophor(s) as active ingredients and are intended for use on inanimate surfaces. This standard

ARS ZW HS 1702:2023
Disinfectants – Glossary of terms
Price Code: Gr. 3
3 pages
Adoption of ARS 1702:2021

This African Standard defines the terms used in disinfectants industry. This will help eliminate confusing terms in related specifications.

ARS ZW HS 1709:2023
Corrugated fibre boards
Price Code: Gr. 6
15 pages
Adoption of ARS 1709:2022

This African Standard specifies requirements, sampling and test methods for corrugated fibreboard boxes for general packaging. This standard does not include special treatment measures of the boxes in case of expected contamination of the contents.

ARS ZW HS 1710:2023
Natural and extensible sack Kraft paper
Price Code: Gr. 4
4 pages
Adoption of ARS 1710:2022

This African Standard specifies requirements, sampling and test methods for natural and extensible sack Kraft paper for packaging.

ARS ZW HS 1711:2023
Paper and board food contact packaging material
Price Code: Gr. 5
6 pages
Adoption of ARS 1711:2022

This African Standard specifies requirements, sampling and test methods for paper and board food contact packaging material.

ARS ZW HS 1712:2023
Paper plates and cups for food packaging
Price Code: Gr. 5
8 pages
Adoption of ARS 1712:2022

This African Standard specifies requirements, sampling and test methods for paper plates and cups, with or without lids, used for food packaging.

ARS ZW HS 1713:2023
Nutritional labelling – Requirements
Price Code: Gr. 5
9 pages
Adoption of ARS 1713:2022

This African Standard specifies requirements, for the nutrition labelling of foods. The standard applies to the nutrition labelling of all foods except for foods for special dietary uses.

ARS ZW HS 1714:2023
Claims on food - General requirements
Price Code: Gr. 4
3 pages
Adoption of ARS 1714:2022

This African standard prescribes the requirements for claims made on a food irrespective of whether or not the food is covered by an individual African Standard.

ARS ZW HS 1715:2023
Use of nutrition and health claims – Requirements
Price Code: Gr. 5
8 pages
Adoption of ARS 1715:2023

This African Standard prescribes the requirements for the use of nutrition and health claims in food labelling and in advertising. This African Standard applies to all foods for which nutrition and health claims are made without prejudice to specific provisions under other standards or guidelines relating to foods for special dietary uses and foods for special medical purposes.

ARS ZW HS 1716:2023
Migration of constituents of plastic materials and articles intended to come into contact with foodstuffs
Price Code: Gr. 6
13 pages
Adoption of ARS 1716:2022

This African standard specifies the basic rules for the determination of overall migration of plastic constituents intended to come into contact with foodstuff. It therefore specifies the list of simulants to be used, the standard test conditions likely to reproduce the phenomena being to result from the contact object-food. It also gives the overall migration limit to be respected for articles intended for food contact.

ARS ZW HS 1718:2023
Aluminium cans for beverages
Price Code: Gr. 5
13 pages
Adoption of ARS 1718:2022

This African Standard specifies requirements and test methods for aluminium cans used as primary pack for packaging of beverages.

ARS ZW HS 1719:2023
Packaging – Code of practice – Glass containers
Price Code: Gr. 5
12 pages
Adoption of ARS 1719:2022

This African Standard specifies requirements and test methods for aluminium cans used as primary pack for packaging of beverages.

ARS ZW HS 1748: Part 1:2023
Glass containers
Part 1: Bottles for carbonated and non-carbonated drinks
Price Code: Gr. 4
4 pages
Adoption of ARS 1748-1:2022

This African Standard specifies the requirements, methods of sampling and test for glass bottles used for packaging of carbonated and non-carbonated drinks. This standard does not cover glass containers used in pharmaceutical industry.

ARS ZW HS 1755:2025
Breakfast cereals — Specification
Price Code: Gr. 4
6 pages
Adoption of ARS 1755:2025

This African Standard specifies the requirements, sampling and test methods for breakfast cereals intended for human consumption.

ARS ZW HS 1756:2025
Fonio grains
Price Code: Gr. 4
5 pages
Adoption of ARS 1756:2025

This African Standard specifies the requirements, sampling and test methods for fonio grains (Digitaria exilis Staph and Digitaria Ibura Staph) intended for human consumption.

ARS ZW HS 1757:2025
Fonio flour — Specification
Price Code: Gr. 4
5 pages
Adoption of ARS 1757:2025

This African Standard specifies the requirements, sampling and test methods for fonio flour derived from grain of fonio plant (Digitaria iburua or Digitaria exilis intended for human consumption.

ARS ZW HS 1795:2026
Fishing vessels — Guidelines for construction and use
Price Code: Gr. 5
8 pages
Adoption of ARS 1795:2025

This African guideline applies to the design, construction, equipment and safety on board fishing vessels.

ARS ZW HS 1809:2026
Catfish Farming- Good Aquaculture Practices
Price Code: Gr. 4
6 pages
Adoption of ARS 1809:2025

This African Standard applies to good aquaculture practices (GAP) at all stages of African Catfish (Clarias) farming in order to produce good quality and safe products intended for human consumption.

ARS ZW HS 1825: Part 1:2026
Hay as animal feed - Specification
Part 1: Rhodes and natural grass hay
Price Code: Gr. 5
5 pages
Adoption of ARS 1825-1:2025

This African Standard specifies requirements, sampling and test methods for rhodes and natural grass hay used as animal feed.

ARS ZW HS 1825: Part 2:2026
Hay as animal feed - Specification
Part 2: Alfalfa (lucerne) hay
Price Code: Gr. 5
5 pages
Adoption of ARS 1825-2:2025

This African Standard specifies the requirements, sampling and test methods for alfalfa (lucerne) hay used as animal feed.

ARS ZW HS 1830:2026
Compounded goat and sheep feed - Specification
Price Code: Gr. 6
15 pages
Adoption of ARS 1830:2025

This African Standard specifies requirements, sampling and test methods for compounded goat and sheep feed.

ARS ZW HS 1838:2026
Fish meal as animal feed - Specification
Price Code: Gr. 5
6 pages
Adoption of ARS 1838:2025

This African Standard specifies requirements, sampling and test methods for fish meal used in compounding animal feeds.

ARS ZW HS 1912:2026
Farmed freshwater fish — Specification
Price Code: Gr. 4
5 pages
Adoption of ARS 1912:2025

This African standard applies to farmed freshwater fish for direct consumption or further processing.

ARS ZW HS 1913:2026
Fresh and chilled fish — Specification
Price Code: Gr. 6
10 pages
Adoption of ARS 1913:2025

This African standard specified requirement for sampling and test method for fresh and chilled fish intended for direct human consumption without further processing. It does not apply to fish products indicated for further processing or for other industrial use.

ARS TR ZW HS 2054:2026
Insect value-added products — Procedures, hygiene, quality, safety, environmental concerns standards for commercialization
Price Code: Gr. 7
26 pages
Adoption of ARS 2054:2025

This technical report provides a global compilation of insect value added products including the procedures, hygiene, quality, safety, environmental and standards requirements for commercialization.

ARS ZW HS 2139:2026
Good animal feeding — Code of practice
Price Code: Gr. 4
11 pages
Adoption of ARS 2139:2025

This African Standard provides guidelines aimed at ensuring the safety of food for human consumption through adherence to good animal feeding practices at the farm level and good manufacturing practices (GMPs) during the procurement, handling, storage, processing, and distribution of animal feed and feed ingredients for food-producing animals. This standard applies to the production and use of all materials destined for animal feed and feed ingredients at all levels whether produced industrially or on farm.
This standard also includes grazing or free-range feeding, forage crop production and aquaculture.

ZWS ARS AES 01:2017
Agriculture – Sustainability And Eco-Labelling –Requirements
Price Code: Gr. 7
13 pages
Identical to ARS 01:2017

Provides requirements for the sustainable production,processing and trading of agricultural products including food, beverages and non-food products; and agricultural fibre products the standard applies to all production, processing and trading within the operator's sphere of influence.

ZWS ARS AES 02:2017
Fisheries – Sustainability and ecolabelling Requirements
Price Code: Gr. 6
13 pages
Identical to ARS 02:2014

Provides requirements for the sustainable harvesting of fish up to the point at which the fish are landed. It applies to marine and inland capture fisheris only.

ZWS ARS AES 03:2018
Forestry – Sustainability and ecolabelling Requirements
Price Code: Gr. 7
13 pages
Identical to ARS 03:2018

Provides requirements for the sustainable production ,harvesting and processing of forest products.The standard can be applied to any defined forest area irrespective of scale or type of ownership,or whether natural forests or plantation.

ZWS ARS AES 04:2018
Tourism – Sustainability And Ecolabelling – Requirements
Price Code: Gr. 7
21 pages
Adoption of African Standard ARS AES 04:2014

This standard specifies the requirements principles, minimum requirements (criteria) and indicators for an operator applying for ecolabel in the tourism sector

ZWS AFSEC

ZWS AFSEC 1041:1049
Guide for application of Stanadrds for rural Electrification In Africa
Price Code: Gr. 5
18 pages

Standard provides an overview of standards for technologies suitable for application in electrification of rural areas in Africa. The guide takes into account the small to large scale systems

ZWS COMESA ADOPTIONS

NOTE: Some COMESA endorsed standards appear under the IEC and ISO sections.

COMESA ZWS HS 353:2004
Sweetened condensed milks
Price Code: Gr 3
4 pages
Identical to Codex – Stan A-4, CHS 003:2004
Replaces ZWS 799:2003

Applies to sweetened condensed milks, intended for direct consumption or further processing, in conformity with the description in section 2 of this standard.

COMESA ZWS HS 358:2004
Certain pulses
Price Code: Gr 3
4 pages
Identical to Codex – Stan 171-1989 (Rev 1-1995), CHS 005:2001

Applies to the whole, shelled or split pulses intended for direct human consumption. It does not apply to pulses intended for factory grading and packaging, industrial processing, or to those pulses intended for use in the feeding of animals. It does not apply to fragmented pulses when sold as such, or to other legumes for which separate standards may be elaborated.

COMESA ZWS HS 364:2004
Peanuts
Price Code: Gr 3
5 pages
Identical to Codex – Stan200-1995, CHS 016:2004
Amended by MD583:1999
Replaces ZWS 389:1995

Applies to peanuts intended for processing for direct human consumption.

COMESA ZWS HS 403:2004
Whole and decorticated pearl millet grains
Price Code: Gr 3
4 pages
Identical to Codex – Stan 169-1989 (Rev 1-1995), CHS 012:2004

Applies to whole and decorticated pearl millet grains destined for human consumption which is obtained from *Pennisetum americanum L,* senegalese varieties "souna" and "sanio".

COMESA ZWS HS 412:2004
Quick frozen fish fillets
Price Code: Gr 3
7 pages
Identical to Codex – Stan 190-1995, CHS 009:2004

Applies to quick frozen fillets of fish as defined below and offered for direct consumption without further processing. It does not apply to products indicated as intended for further processing or for other industrial purposes.

COMESA ZWS HS 413:2004
Quick frozen fish sticks (fish fingers) fish portions and fish fillets – Breaded or in batter.
Price Code: Gr 3
9 pages
Identical to Codex – Stan 166-1989 (Rev1-1995), CHS 008:2004

Applies to quick frozen fish sticks (fish fingers) and fish portions cut from quick frozen fish flesh blocks, or formed from fish flesh, and to natural fish fillets, breaded or batter coatings, singly or in combination, raw or partially cooked offered for direct human consumption without further industrial processing.

COMESA ZWS HS 415:2004
Quick frozen blocks of fish fillets, minced fish flesh and mixtures of fillets and minced fish flesh.
Price Code: Gr 4
9 pages
Identical to Codex – Stan 165-1989 (Rev 1-1995), CHS 007:2004

Applies quick frozen blocks of cohering fish flesh, prepared from fillets or minced fish flesh or mixture of fillets and minced fish which are intended for further processing.

COMESA ZWS HS 416:2004
Quick frozen shrimps and prawns
Price Code: Gr 3
8 pages
Identical to Codex – Stan 093-1981 (Rev 1-1995), CHS 004:2004

Applies to quick frozen raw or partially or fully cooked shrimps or prawns, peeled or unpeeled.

COMESA ZWS HS 419:2004
Canned tuna and bonito
Price Code: Gr 3
10 pages
Identical to Codex – Stan 70-1981 (Rev 1-1995), CHS 001:2004

Applies to canned tuna and bonito. It does not apply to specialty products where the fish content constitutes less than 50%m/m of the contents.

COMESA ZWS HS 427:2005
Babycorn
Price Code: Gr 4
7 pages
Identical to Codex – Stan 188:1993, CHS 037:2004

Applies to the cobs of commercial varieties of baby corn to be supplied fresh to the consumer after preparation and packaging.

COMESA ZWS HS 450:2005
Milkfat products
Price Code: Gr 3
3 pages
Identical to Codex – Stan A-1971 (Rev 1-1999), CHS 084:2005

Applies to milkfat products which are intended for further processing or culinary use, in conformity with the description in Section 2 of this standard.

COMESA ISO HS 452:2005
Packaging and transportation of fresh fruit and vegetables
Price Code: Gr 3
13 pages
Identical to Codex – Stan CAC/RCP 44 1995, CHS 103:2005

Recommends proper packaging and transport of fresh fruit and vegetables in order to maintain produce quality during transportation and marketing.

COMESA ZWS HS 453:2005
Avocado
Price code: Gr 3
6 pages
Identical to Codex – Stan 197-1995 (Rev1-1995), CHS 068:2005

Applies to commercial varieties (cultivars) of avocados grown from Persea Americana Mill of the Lauraceae family, to be supplied fresh to the consumer, after preparation and packaging.

COMESA ZWS HS 454:2005
Fresh mangoes
Price Code: Gr 3
6 pages
Identical to Codex – Stan 184-1993, CHS 072:2005

Applies to commercial varieties of mangoes grown from *Mangi-fera indica L, of the Anacardiaceae* family , to be supplied fresh to the consumer, after preparation and packaging.

COMESA ZWS HS 455:2005
Fresh papaya
Price Code: Gr 3
4 pages
Identical to Codex – Stan 183-1993 (Rev 1-2001), CHS 070:2005

Applies to fruits of commercial varieties of papayas to be supplied fresh to the consumer, after preparation and packaging.

COMESA ZWS HS 456:2005
Dried apricots
Price Code: Gr 3
6 pages
Identical to Codex – Stan 130-1981, CHS 033:2005

Applies to dried fruits of *Ameniaca vulgarea Lam,* which have been suitably treated or processed and which are offered for direct consumption. Also covers dried apricots which are packaged in bulk containers and which are in tended for repackaging into consumer size containers or for direct sale to consumers.

COMESA ZWS HS 460:2005
Dehydrated fruits and vegetables including edible fungi
Price Code: Gr 4
8 pages
Identical to Codex – Stan CAC/RCP 5-1971, CHS 039:2005

Applies to fruits and vegetables which are artificially dehydrated (including freeze-dried), either from the succulent stage or in combination with sun-drying, and covers the products commonly associated with the phrase “dehydrated food”.

COMESA ZWS HS 476:2005
Desiccated coconut
Price Code: Gr 3
8 pages
Identical to Codex – Stan CAC/RCP 4-1971, CHS 047:2005

Applies to desiccated coconut, the dried product prepared for human consumption without requiring further processing which is obtained by shredding or otherwise comminuting the pared kernel of coconut, the fruits of the palm.

COMESA ZWS HS 501:2005
Canned mangoes
Price Code: Gr 4
11 pages
Identical to Codex – Stan 159-1987, CHS 022:2005
Partially replaces ZWS 747-2003

Applies to canned mango prepared from stemmed, peeled, fresh, sound, clean and mature fruit of commercial varieties conforming to the characteristics of the fruits of *Mangifera Indica L,* which may be packed with a suitable liquid packing medium, rurtitive sweeteners and other seasoning or flavouring ingredients appropriate to the product.

COMESA ZWS HS 516:2005
Canned strawberries
Price Code: Gr 4
6 pages
Identical to Codex – Stan 62-1981, CHS 050:2005
Partially replaces ZWS 747:2003

Applies to canned strawberries prepared from strawberries of varieties packed with water or other suitable liquid packing medium, processed by heat in an appropriate manner before or after being sealed in a container to prevent spoilage.

COMESA ZWS HS 539:2005
Canned Mandarin oranges
Price Code: Gr 4
9 pages
Identical to Codex – Stan 68-1981, CHS 054:2005

Applies to canned mandarin oranges offered for direct consumption.

COMESA ZWS HS 552:2005
Canned apricots
Price Code: Gr 4
9 pages
Identical to Codex – Stan 129-1970, CHS 059:2005
Partially replaces ZWS 747-2003

Applies to canned apricots processed by heat, in an appropriate manner before or after being sealed in a container, so as to prevent spoilage.

COMESA ZWS HS 563:2005
Quick frozen peas
Price Code: Gr 3
5 pages
Identical to Codex – Stan 41-1981, CHS 048:2004

Applies to quick frozen peas for direct consumption without further processing, except for size grading or repacking if required. Does not apply to product intended for further processing or industrial purposes.

COMESA ZWS HS 565:2003
Canned pineapple
Price Code: Gr 4
9 pages
Identical to Codex – Stan 42-1981, CHS 071:2005
Partially replaces ZWS 747-2003

Applies to canned pineapples intended for human consumption.

COMESA ZWS HS 566:2005
Quick frozen broccoli
Price Code: Gr 4
8 pages
Identical to Codex – Stan 110-1981, CHS 031:2005

Applies to quick frozen broccoli for direct consumption without further processing, except for repacking if required.

COMESA ZWS HS 570:2005
Quick frozen French fried potatoes
Price Code: Gr 4
8 pages
Identical to Codex – Stan 114-1981, CHS 043:2004

Applies to quick frozen French fried potatoes which have been prepared from tubers and meant for direct consumption without further processing except for repacking if required.

COMESA ZWS HS 607:2005
Quick frozen cauliflower
Price Code: Gr 4
8 pages
Identical to Codex Stan 111-1984, CHS 055:2005

Applies to quick frozen French cauliflower offered for direct consumption without further processing, except for repacking if required.

COMESA ZWS HS 621:2005
Quick frozen carrots
Price Code: Gr 4
11 pages
Identical to Codex – Stan 140-1983, CHS 060:2005

Applies to quick frozen carrots offered for direct consumption without further processing, except for repacking if required.

COMESA ZWS HS 635:2005
Canned sweet corn
Price Code: Gr 3
6 pages
Identical to Codex – Stan 18-1981, CHS 045:2005

For further purposes of this standard, canned sweet corn does not include corn-on-the –cob.

COMESA ZWS HS 638:2005
Canned carrots
Price Code: Gr 4
9 pages
Identical to Codex –Stan 129-1970, CHS 057:2005
Partially replaces ZWS 65-1970

Applies to canned carrots meant for direct consumption, processed by heat in an appropriate manner before or after being sealed in a container.

COMESA ZWS HS 640:2005
Processed meat and poultry products
Price Code: Gr 7
30 pages
Technically equivalent to CAC/RCP 13 -1978(Rev 1-1985), CHS 024:2005

Specifies the minimum requirements of hygienic in the productions, handling, packaging, storing and transportation of processed meat products to assure a healthful and wholesome supply of products.

COMESA ZWS HS 644:2005
Canned tomatoes
Price Code: Gr 3
6 pages
Identical to Codex – Stan 13-1981, CHS 079:2005
Partially replaces ZWS S5-1970

Applies to processed canned tomatoes meant for human consumption.

COMESA ZWS HS 713:2005
Processed cereal – based foods for infants and children.
Price Code: Gr 3
7 pages
Amended by MD 668:2007
Identical to Codex – Stan74-1981, CHS 078:2004

Applies to processed cereal-based foods for infants and children which are intended to supplement the diet of infants and children.

COMESA ZWS HS 714:2006
Use of Dairy Terms
Price Code: Gr 3
3 pages
Technically equivalent to Codex – Stan 206-1999, CHS 090:2005

Specifies the use of dairy terms in relation to foods to be offered to the consumer or for further processing.

COMESA ZWS HS 876:2005
Margarine
Price Code: Gr 3
5 pages

Identical to Codex – Stan 32 1981 (Rev 1-`989), CHS 017:2004
This standard will not apply to any product which contains less than 80% fat and is not labeled in any manner which implies, either directly or indirectly that the product is margarine.

COMESA ZWS ISO ADOPTIONS

NOTE: Some COMESA endorsed standards appear under the IEC and ISO sections

COMESA ZWS HS ISO 137:2009
Wool – Determination of fibre diameter projection microscope method
Price Code: Gr. 4
7 pages
Identical to CHS 249:2006

Specifies the procedure and the conditions of measurement for determination of wool fibre diameter by means of the projection microscope.

COMESA ZWS HS ISO 445:2007
Pallets for materials handling – Vocabulary
Price Code: Gr 7
39 pages
Identical to ISO 445 -1996, CHS 215:2006

Defines terms relating to pallets for unit load methods of materials handling.

COMESA ZWS HS ISO 559:2006
Steel tubes for water and sewage
Price Code: Gr 5
14 pages
Identical to ISO 559:1991, CHS 101:2005

Specifies technical conditions for delivery of seamless and welded steel tubes for the conveyance of water and sewage at temperatures between 10^0C and 120^0C.

COMESA ZWS HS ISO 607:2007
Surface active agents and detergents – Methods of sample division.
Price Code: Gr 3
7 pages
Identical to ISO 607:1980, CHS 238:2005

Specifies methods for obtaining a reduced sample of surface active agent or detergent suitable for use with single or mixed products in the form of powders, pastes or liquids.

COMESA ZWS HS ISO 1035:2006
Hot – rolled steel bars.
Part 1: Dimensions of round bars
Price Code: Gr 2
4 pages
Identical to ISO 1035-1:1980, CHS 085.1:2005

Specifies dimensions of metric series hot-rolled steel round bars.

Part 2: Dimensions of square bars
Price Code: Gr 2
4 pages
Identical to ISO 1035:1989, CHS 085.2:2005

Specifies dimensions of metric series hot-rolled steel square bars.

Part 3: Dimensions of flat bars
Price Code: Gr 2
4 pages
Identical to ISO 1035-3:1980, CHS 085.3:2005

Specifies dimensions of metric series hot-rolled steel flat bars.

Part 4: Tolerances
Price Code: Gr 2
6 pages
Identical to ISO 1035-4:1980, CHS 085.4:2005

Specifies metric dimensional tolerances applicable to hot-rolled steel bars supplied straight length.

COMESA ZWS HS ISO 1127:2006
Stainless steel tubes – Dimensions Tolerances and conventional masses per unit length.
Price Code: Gr 4
8 pages
Identical to ISO 1127:1992, CHS 119:2005

Specifies the diameters, thicknesses, tolerances and conventional masses per unit length of stainless steel tubes.

COMESA ZWS HS ISO 1130:2008
Textile fibres – Some methods of sampling for testing
Price Code: Gr 4
9 pages
Identical to ISO 1130:1975, CHS 266:2006

Specifies several methods for preparing laboratory samples of fibres and presents a limited treatment of the problem of drawing specimens for testing.

COMESA ZWS HS ISO 1136:2009
Wool – Determination of mean diameter of fibres – Air permeability method
Price Code: Gr 4
8 pages
Identical to ISO 1136:1976, CHS 250:2006

Specifies a method for the determination of the mean diameter of wool fibres using an apparatus which passes a current of air through a bundle of fibres

COMESA ZWS HS ISO 1833:2008
Textiles – Binary fibre mixtures – quantitative chemical analysis
Price Code: Gr 5
15 pages
Identical to ISO 1833:1977, CHS 119:2005

Contains methods for the quantitative chemical analysis of various binary mixtures of fibres. The methods given are applicable in general to fibres in any textile form. Where certain textile forms are excepted these are listed in the “field of application” clause of the individual.

COMESA ZWS HS ISO 1973:2008
Textiles fibres – Determination of linear density gravimetric methods and vibroscope method
Price Code: Gr 4
8 pages
Identical to ISO 1973:1995, CHS 268:2006

Specifies a gravimetric method and a vibroscobe method for the determination of the linear density of textile fibres applicable respectively.

COMESA ZWS HS ISO 2299:2008
Sawn timber of broadleaved species – Defects – Measurement
Price Code: Gr 4
6 pages
Identical to ISO 2299:1973, CHS 210:2006

Specifies the international classification of defects of sawn timber of broadleaved specifies growing in the temperate zone of the globe.

COMESA ZWS HS ISO 2300:2008
Sawn timber of broadleaved species – Defects – Terms and definitions
Price Code: Gr 7
32 pages
Identical to ISO 2300:1973, CHS 211:2006

Establishes international terms and definitions for defects of sawn timber of broadleaved species, classified in ISO 2299.

COMESA ZWS HS ISO 2301:2008
Sawn timber of broadleaved species – Defects – Measurement
Price Code: Gr 4
10 pages
Identical to ISO 2301:1973, CHS 212:2006

Specifies international methods of measuring defects of sawn timber of broadleaved species, classified in ISO 2299.

COMESA ZWS HS ISO 2370:2008
Textiles – Determination of fineness of flax fibres – Permeametric methods
Price Code: Gr 4
11 pages
Identical to ISO 2370:1980, CHS 269:2006

Specifies two permeametric methods for the determination of the fineness of flax fibres.

COMESA ZWS HS ISO 2418:2007
Leather – Chemical, physical and mechanical and fastness tests – Sampling location.
Price Code: Gr 4
6 pages
Identical to ISO 2418:2002, CHS 230:2005

Specifies the location of a laboratory sample within a piece of leather and the method of labeling and marking the laboratory samples for future identification.

COMESA ZWS HS ISO 2419:2007
Leather – Physical and mechanical tests –sample preparation and conditioning.
Price Code: Gr 3
2 pages
Identical to ISO 2419:2002, CHS 231:2006

Specifies the preparation of leather test pieces for physical and mechanical resting together with two standard atmospheres for conditioning and testing.

COMESA ZWS HS ISO 2588:2007
Leather – Sampling – Number of items for a gross sample.
Price Code: Gr 2
1 page
Identical to ISO 2588:1985, CHS 233:2005

Specifies a method for the drawing, from a lot, of whole pieces of leather to form a gross sample.

COMESA ZWS HS ISO 2646: 2008
Wool – Measurement of the length of the fibres processed on the worsted system, using a fibre diagram machine
Price Code: Gr. 3
5 pages
Identical to ISO 2646:1974, CHS 253:2006

Specifies a method for the measurement of the length of wool fibres using a fibre diagram machine. The method is applicable to combed silvers processed on the worsted systems.

COMESA ZWS HS ISO 2647:2009
Wool – Determination of percentage of modulated fibres by the projection microscope
Price Code: Gr. 2
2 pages
Identical to ISO 2647:1973, CHS 270:2006

Utilizes the same apparatus and technique as that described in ISO/TR 137.

COMESA ZWS HS ISO 2701:2006
Drawn wire for general purpose – Non – Alloy steel wire ropes – Terms of acceptance.
Price Code: Gr 2
4 pages
Identical to ISO 12701:1999, CHS 122:2005

Specifies the terms of acceptance for drawn wire intended for the manufacture of general purpose non-alloy steel-wire ropes, as specified in ISO 2232.

COMESA ZWS HS ISO 2821:2007
Leather – Raw hides of cattle and horses – Preservation by stack salting.
Price Code: Gr 2
2 pages
Identical to ISO 2821:1974, CHS 232:2005

Analyses the various preserving process defects likely to affect the raw hides of cattle and horses and defines the nites for the preservation of these hides by stack salting.

COMESA ZWS HS ISO 3060:2009
Cotton fibres – Determination of breaking tenacity of flat bundles
Price Code: Gr 3
6 pages
Identical to ISO 3060:1974, CHS 271:2006

Specifies a method of test for the determination of the breaking tenacity of cotton fibres arranged in a parallel manner in a flat bundle. The method applies to fibres from raw cotton or to raw cotton or to fibres from various stages in the manufacturing process or to fibres separated or extracted from manufactured cotton products.

COMESA ZWS HS ISO 3129:2008
Wood – Sampling method and general requirements for physical and mechanical tests
Price Code: Gr 3
4 pages
Identical to ISO 3129:1975, CHS 203:2006

Specifies methods for the selective and mechanical sampling of wood, for the conditioning of selected material and for the preparation of test pieces.

COMES ZWS HS ISO 3133:2008
Wood – Determination of ultimate strength in static bending
Price Code: Gr 2
2 pages
Identical to ISO 3133:1975, CHS 204:2006

Specifies a method for determining the ultimate strength of wood in static bending.

COMESA ZWS HS ISO 3376:2007
Leather – Physical and mechanical tests – Determination of tensile strength and percentage extension.
Price Code: Gr 4
4 pages
Identical to ISO 3376:2002, CHS 234:2006

Specifies a method for determining the tensile strength, elongation and a specified load and elongation and break of leather. It is applicable to all types of leather.

COMESA ZWS HS ISO 3377:2007
Leather – Physical and mechanical tests – determination of tear load.
Part 1: Single edge tear.
Price Code: Gr 3
3 pages
Identical to ISO 3377-1:2002, CHS 235.1:2006

Specifies a method for determining the tear strength of leather. Using a single edged tear.

Part 2: Double edge tear
Price code: Gr 3
3 pages
Identical to ISO 3377-2:2002, CHS 235.2:2006

Specifies a method for determining the tear strength of leather using a double edged tear.

COMESA ZWS HS ISO 3755:2006
Cast carbon steels for general engineering purposes.
Price Code: Gr 2
5 pages
Identical to ISO 13755:1991, CHS 058:2005

Specifies requirements for eight grades of heat-treated cast carbon steels for general engineering purposes. Four grades have a restricted chemical composition to ensure uniform weldability.

COMESA ZWS HS ISO 4198:2007
Surface Active agents – Detergents for hand dishwashing. Guide for comparative testing of performance.
Price Code: Gr 4
7 pages
Identical to ISO 4198:1984, CHS 240:2005

Establishes guidelines for carrying out comparative tests for determining the principal performance characteristics of detergents, solid or liquid, for domestic hand washing which are of interest to the consumer.

COMESA ZWS HS ISO 4319:2007
Surface active agents – detergents for washing fabrics – Guide for comparative testing of performance.
Price Code: Gr 5
6 pages
Identical to ISO 4319:1977, CHS 239:2006

Constitute a guide for carrying out comparative tests of fabric washing products in such a way as to realistically reflect the performance of the products likely to be used by consumers.

COMESA ZWS HS ISO4325:2007
Soaps and detergents – determination of chelating agent content – Titrimetric method.
Price Code: Gr 2
2 pages
Identical to ISO 4325:1990, CHS 243:2006

Specifies a method of analysis for the determination of the chelating agent content of detergent compositions and soaps containing not more than 2% (m/m) of chelating agent.

COMESA ZWS HS ISO 4858:2008
Wood – Determination of volumetric shrinkage
Price Code: Gr. 3
3 pages
Identical to ISO 4858:1982, CHS 206:2006,

Specifies two methods for the determination of the volumetric shrinkage of wood.

COMESA ZWS HS ISO 4860:2008
Wood – Determination of volumetric swelling
Price Code: Gr 3
3 pages
Identical to ISO 4860:1982, CHS 207:2006

Specifies two methods for the determination of the volumetric swelling of wood. The stereometric method used for test pieces made in accordance with ISO 4859.The mercury volumenometer method used for test pieces of any shape.

COMESA ZWS HS ISO 4911:2008
Textiles – Cotton fibres – Equipment and artificial lighting for cotton classing rooms
Price Code: Gr 3
7 pages
Identical to ISO 4911:1980, CHS 257:2006

Specifies requirements for artificial illumination used for judging accurately and uniformly the colour of cotton. It also describes a method of test for appraising the colour quality of lamps procured for this purpose.

COMESA ZWS HS ISO 4912:2008
Textiles – Cotton fibres – Evaluation of maturity – Microscopic method
Price Code: Gr 4
8 pages
Identical to ISO 4912:1981, CHS 272:2006

Specifies a method for the evaluation of the maturity of raw cotton fibres, or fibres taken from cotton articles which have not been chemically processed

COMESA ZWS HS ISO 4913:2008
Textiles – Cotton fibres – Determination of length (span length) and uniformity index
Price Code: Gr 3
3 pages
Identical to ISO 4913:1981, CHS 258:2006

Specifies a method of test for the determination of the length and uniformity index of cotton fibres by scanning a test beard in an optical device.

COMESA ZWS HS ISO 5079:2008
Textile fibres – Determination of breaking force and elongation at break of individual fibres
Price Code: Gr 3
6 pages
Identical to ISO 5079:1995, CHS 273:2006

Specifies the method and conditions of test for the determination of the breaking force and elongation at break of individual fibres in the conditioned or wet state.

COMESA ZWS HS ISO 5088:2008
Textiles – Ternary fibre mixtures – Quantitative analysis
Price Code: Gr 5
13 pages
Identical to ISO 5088:1976, CHS 259:2006

Specifies methods of quantitative analysis of various ternary mixtures of fibres.

COMESA ZWS HS ISO/TR 5090:2008
Textiles – Methods for the removal of non-fibrous matter prior to quantitative analysis of fibre mixtures
Price Code: Gr 3
7 pages
Identical to ISO/TR 5090:1977, CHS 267:2006

Describes procedures for the removal of certain commonly found types of non-fibrous substances from fibres. Fibres to which the procedures are applicable and those to which they are not applicable are listed in the table, in relation to the non-fibrous substances to be removed. The names of these fibres are defined in ISO 2076.

COMESA ZWS ISO HS 5403:2007
Leather – Physical and mechanical tests – determination of H_20 resistance of flexible leather.
Price Code: Gr 4
7 pages
Identical to ISO 5403:2002, CHS 236:2006

Specifies a method for determining the dynamic H_20 resistance of leather. It is applicable to all flexible leathers but is particularly suitable for leathers intended for footwear uppers.

COMESA ZWS HS ISO 5431:2007
Leather – Wet blue goat skins – Specification.
Price code: Gr 4
7 pages
Identical to ISO 5431:1999, CHS 245:2006

Specifies requirements methods of sampling and methods of test for wet blue leather produced from goat skins tanned without hair and with the use of basic chromium sulfate as the primary tanning agent.

COMESA ZWS HS ISO 5432:2007
Leather – Wet blue sheep skins – Specification
Price Code: Gr 4
7 pages
Identical to ISO 5432:1999, CHS 246:2006

Specifies requirements, of sampling and test for wet blue leather produced from sheep skins tanned without wool and with the use of basic chrome sulphate as the primary tanning agent.

COMESA ZWS HS ISO 5433:2007
Leather – Bovine wet blue – Specification
Price Code: Gr 4
8 pages
Identical to ISO 5433:1999, CHS 247:2006

Specifies requirements, methods of sampling and methods of test for wet blue leather produced from bovine hides and parts of bovine hides tanned without hair and with the use of basic chromium sulfate as the primary tanning agent.

COMESA ZWS HS ISO 6741:2008
Textiles – Fibres and yarns – Determination of commercial mass of consignments
Part 1: Mass determination and calculations
Price Code: Gr 4 CHS 268:2006
10 pages
Identical to ISO 6741.1:1989, CHS 260.1:2006

Specifies methods for the determination of the commercial mass of homogeneous consignments of those textile fibres and yarns composed of a single generic species listed in part 4.

Part 2: Methods for obtaining laboratory samples
Price Code: Gr 3
5 pages
Identical to ISO 6741.2:1987, CHS 260.2:2006

Specifies methods for obtaining laboratory samples for mass determination by one of the methods given in ISO 6741.1.The method appropriate for particular fibres is indicated in ISO 6741.4.

Part 3: Specimen cleaning procedures
Price Code: Gr 3
4 pages
Identical to ISO 6741.3:1987, CHS 260.3:2006

Specifies specimen cleaning procedures to be used when the commercial mass is to be determined in accordance with ISO 6741.1 on a clean and dry basis.

Part 4: Values used for the commercial allowances and the commercial moisture regains
Price Code: Gr 3
6 pages
Identical to ISO/TR 6741.4:1987, CHS 260.4:2006

Gives values for the commercial allowances and commercial moisture regains commonly used in the calculation of the commercial mass of consignments of textile fibres and yarns composed of a single generic type in their morphological state.

COMESA ZWS HS ISO 6934:2006
Steel for the prestressing of concrete
Part 1: General requirements
Price Code: Gr. 3
7 pages
Identical to ISO 76934-1:1991, CHS 088.1:2005

Specifies requirements for high tensile strength steel to be used in pre-stressed concrete. Applies only to material in the condition as supplied by manufactures.

Part 2: Cold-drawn wire
Price Code: Gr. 3
6 pages
Identical to ISO 6934-2:1991, CHS 088.2:2006

Specifies requirements for round, cold-drawn, high-tensile steel wire, either plain, indented, ribbed or crimped.

Part 3: Quenched and tempered wire
Price Code: Gr 3
6 pages
Identical to ISO 6934-3:1991, CHS 088.3:2006

Specifies requirements for round wire made of quenched and tempered high tensile steel, with a surface with either plain, ribbed grooved or indented. Product is delivered in coils.

Part 4: Strand
Price Code: Gr. 3
5 pages
Identical to ISO 6934-4:1991 CHS 088.4:2006,

Specifies requirements for high – tensile steel strand which has been given a stress relieving heat treatment according to the general requirements specified in Part 1.

Part 5: Hot- rolled steel bars with or without subsequent processing.
Price Code: Gr.3
6 pages
Identical to ISO 6934-5:1991 CHS 088.5:2006

Specifies requirements for round high tensile steel bars. Bars may be supplied either hot-rolled or in a hot-rolled and processed condition, according to the general requirements specified in Part 1.

COMESA ZWS HS ISO 6935:2006
Steel for reinforcement of concrete
Part 1: Plain bars
Price Code: Gr. 3
6 pages
Identical to ISO 6934-1:1999, CHS 089.1:2008

Specifies technical requirements for plain bars designated for reinforcement in ordinary concrete structures and for non-prestressed reinforcement in prestressed concrete structures.

Part 2: Ribbed bars
Price Code: Gr. 4
11 pages
Identical to ISO6934-2:1994, CHS 089.2:2006

Specifies technical requirements for ribbed bars designed for reinforcement in ordinary concrete, structures and for non- prestressed reinforcement in prestressed concrete structures.

COMESA ZWS HS ISO 6938:2008
Textiles – Natural fibres – Generic names and definitions
Price Code: Gr. 3
6 pages
Identical to ISO 6938:1984, CHS 261:2006

Gives the generic names and the definitions of the most important natural fibres according to their specific constitution or origin.

COMESA ZWS HS ISO 6984:2007
Rounded Non – Alloy Steel wires for stranded wire ropes for mine hoisting – Specifications.
Price Code: Gr. 4
9 pages
Identical to ISO 6984:1990, CHS 139:2005

Specifies round non-alloy steel drawn wires to be used in the manufacture of stranded wire ropes for mine hoisting as defined in ISO3154. It specifies the dimensional tolerances; mechanical exteristics; conditions with which coatings, if any shall comply and the conditions of sampling and control.

COMESA ZWS HS ISO 6989:2008
Textile fibres – Determination of length distribution of staple fibres (by measurement of single fibres
Price Code: Gr. 3
6 pages
Identical to ISO 6989:1981, CHS 274:2006

Specifies three methods for determination of the length of staple fibres by measuring individual fibres. Different methods of expressing the length distribution from values obtained by measurement of individual fibres.

COMESA ZWS HS ISO 7535:2007
Surface active agents – detergents for domestic machine dishwashing – guide for comparative testing of performance.
Price Code: Gr .4

11 pages
Identical to ISO 7535:1984, CHS 242:2006
Establishes guidelines for carrying out comparative tests on machine dishwashing products solid or liquid, in an attempt to reflect realistically the performance of products likely to be used by consumers.

COMESAZWS HS ISO 7900:2007
Zinc – Coated steel wire for fencing.
Price Code: Gr. 2
3 pages
Amended by MD 660:2007
Identical to ISO 7900:1988, CHS 140:2005
Specifies requirements for drawn steel wire zinc – coated by the hot dip process and intended for use in general – purpose wire fencing, barbed – wire fencing, barbed – wire fencing, field fencing and chain link fencing.

COMESA ZWS HS ISO 7535:2009
Cotton bales – Dimensions and density
Price Code: Gr. 3
2 pages
Identical to ISO 8115-1:1986, CHS 262.1:2006

Lays down the nominal overall dimensions and the bale density of banded cotton bales density of banded cotton bales. It applies to the shaping and forming the transport and the opening of the bales. It does not apply to wrapping, banding, and the marking of bales.

Part 2: Bales of man-made staple fibres – Dimensions
Price Code: Gr. 3
3 pages
Identical to ISO 8115-2:1994 , CHS 262.2:2006

Specifies the overall dimensions of banded bales of man-made staple fibres. The specified dimensions allow for an optimum utilization of the loading space of freight containers and trucks.

Part 3: Bales of cotton – Packaging and labeling
Price Code: Gr 3
2 pages
Identical to ISO 8115-3:1995, CHS 262.3:2006

Specifies details for packaging and labelling of cotton bales.

COMESA ZWS HS ISO 8159:2009
Textiles – Morphology of fibres and yarns – Vocabulary
Price Code: Gr. 3
3 pages
Identical to ISO 8159:1987, CHS 263:2006

Defines the principal terms used to describe the various forms into which textile fibres can be assembled, up to and including cabled yarns.

COMESA ZWS HS ISO 8375:2008
Solid timber in structural sizes – Determination of some physical and mechanical properties
Price Code: Gr. 3
10 pages
Identical to ISO 8375:1985, CHS 199:2006

Specifies laboratory methods for determining the following properties of solid timber in structural sizes. Modulus of elasticity in static bending, shear modulus, bending strength, modulus of elasticity in tension, tension strength parallel to the grain, modulus of elasticity in compression, compression strength parallel to the grain.

COMESA ZWS HS ISO 8528:2013
Reciprocating internal combustion engine driven alternating current generating sets
Part 2:Engines
Price Code: Gr.5
12 pages.
Identical to ISO 8528.2:2005, CHS 287.2:2007

Specifies the principal characteristics of a reciprocating internal combustion (RIC) engine when used for alternating current (a.c.) generating set applications.

Part 3: Alternating current generators for generating sets
Price Code: Gr.5
15 pages
Identical to ISO 8528.3:2005, CHS 287.3:2007

Specifies the principal characteristics of alternating current (a.c.) generators under the control of their voltage regulators when used in generating set applications. It supplements the requirements of IEC 60034.1.

Part 4: Alternating current generators for generating sets
Price Code: Gr. 5
18 pages
Identical to ISO 8528.4:2005 CHS 287.4:2007,

Specifies the criteria for control gear and switchgear for generating sets with reciprocating internal combustion engines.

Part 7: Technical declarations for specifications and design
Price Code: Gr. 5
14 pages
Identical to ISO 8528.7:1994, CHS 287.7:2007

Specifies the requirements and parameters for the specification and design of a reciprocating internal combustion (RIC) engine driven generating set.

Part 8: Requirements and tests for low-power generating sets
Price code: Gr 5
9 pages
Identical to ISO 8528.8:2016,

Defines design requirements, minimum performances and type tests for low-power generating sets driven by reciprocating internal combustion engines for land and marine use excluding generating sets used on aircraft

Part 9: Measurement and evaluation of mechanical vibrations
Price Code: Gr. 5
15 pages
Identical to ISO 8528.9:1995, CHS 287.9:2007

Describes procedures for measuring and evaluating the external mechanical vibration behaviour of generating sets at the measuring points stated in that international standard.

Part 10: Measurement of airborne noise by the enveloping surface method
Price Code: Gr. 6
17 pages
Identical to ISO 8528.10:1998 , CHS 287.10:2007

Defines measurement methods for the determination of airborne noise emitted by reciprocating internal combustion engine driven generating sets in such a way that the total of relevant noise emissions e.g. exhaust and cooling system noise, together with all other sources of engines noise are evaluated on a similar basis to yield comparable results.

Part 12: Emergency power supplies to safety services
Price Code: Gr. 5
12 pages
Identical to ISO 8528.12:1997, CHS 287.12:2007

Applies to generating sets driven by reciprocating internal-combustion (RIC) engine for emergency power supply to safety services.

COMESA ZWS HS ISO 8611:2007
Pallets for materials handling – flat pallets.
Part 1:Test methods.
Price Code: Gr. 7
Identical to CHS 216:2006
27 pages

Specifies test methods of existing and prototype flat pallets for materials handling (for all types of use).

Part 2: Performance requirements and selection of tests.
Price Code: Gr. 4
11 pages
Identical to ISO 8611-2:2005, CHS 217:2006

Specifies the performance requirements and the selection of tests for flat pallets of all materials being subjected to the tests defined in ISO 8611-1. It is not intended to apply to pallets with a fixed

superstructure or a rigid, self-supporting container and maybe mechanically attached to the pallet and which contributes to the strength of pallet.

Part 3: Maximum working loads.
Price Code: Gr. 4
10 pages
Identical to ISO 8611-3:2005, CHS 218:2006

Proposes relevant test methods to determine a range of maximum working loads for different payloads and loading and support conditions, which depend on the nature of the load being carried.

COMESA ZWS HS ISO 8903:2008
Broadleaved sawn timber – Nominal sizes
Price Code: Gr. 2
1 page
Identical to ISO 8903:1994, CHS 200:2006

Specifies nominal sizes of unplanned, square-edged and unedged, broadleaved sawn timber.

COMESA ZWS HS ISO 8904:2008
Broadleaved sawn timber – Sizes – Methods of measurement
Price Code: Gr .2
1 page
Identical to ISO 8904:1990, CHS 201:2006

Specifies the methods of measurement of the length, width, thickness and volume of broadleaved sawn timber. It is applicable to unplanned, square-edged and unedged broadleaved sawn timber.

COMESA ZWS HS ISO 8905:2008
Sawn timber – Test methods – Determination of ultimate strength in shearing parallel to grain
Price Code: Gr. 2
2 pages
Identical to ISO 8905:1988, CHS 202:2006

Specifies a method of testing sawn timber of coniferous and broadleaved species in shearing parallel to the grain to determine the ultimate strength.

COMESA ZWS HS ISO 9086:2008
Wood – Methods of physical and mechanical testing – Vocabulary
Part 1: General concepts and macrostructure
Price Code: Gr. 3
6 pages
Identical to ISO 9086.1:1987, CHS 208:2006

Gives terms and definitions relating to general concepts and wood macrostructure.

COMESA ZWS HS ISO 9477:2007
High strength cast steels for general engineering and structural purposes.
Price Code: Gr. 3
3 pages
Identical to ISO 9477:1992, CHS 144:2005

Specifies requirements for four grades of heat – treated cast carbon and alloy steels for general engineering and structural purposes.

COMESA ZWS HS ISO 10306:2008
Textiles – Cotton fibres – Evaluation of maturity by the air flow method
Price Code: Gr. 3
5 pages
Identical to ISO 10306:1993, CHS 264:2006

Specifies a method for the evaluation of the maturity of loose randomized cotton fibres by measuring the resistance to air flow of a plug of cotton fibres under two prescribed conditions. The method is applicable to cotton taken at random from bales. Laps and slivers or other sources of lint cotton may be tested, however results may differ if fibres are taken from bales.

COMESA ZWS HS ISO 12952:2008
Textiles – Burning behavior of bedding items
Part 1: General test methods for the ignitability by a smoulding cigarette
Price Code: Gr 4
9 pages
Identical to ISO 12952-1:1998, CHS 265.1:2006

Specifies a general test method common to all bedding items, for assessment of their ignitability when subjected to a smoldering cigarette.

Part 2: Specific test methods for the ignitability by a smoldering cigarette
Price Code: Gr 3
5 pages
Identical to ISO 12952-2:1998 CHS 265.2:2006,

Specifies product specific details concerning specimens size, wash procedures, set up of specimens and positions of cigarettes for testing bedding items according to the method described in EN ISO 12952-1.

Part 3: General test methods for the ignitability by a small open flame
Price Code: Gr 4
9 pages
Identical to ISO 12952-3:1998, CHS 265.3:2006

Specifies a general test method common to all bedding items, for assessment of their ignitability when subjected to a smoldering cigarette.

Part 4: Specific test methods for the ignitability by a small open flame
Price Code: Gr 3
4 pages
Identical to ISO 12952-4:1998, CHS 265.4:2006

Specifies product-specific details concerning specimen size, wash procedures, set-up of specimens and positions of the ignition source for testing bedding items according to the method described in EN ISO 12952.3.

COMESA ZWS HS ISO 13912:2008
Structural timber – Machine strength grading – Basic principles
Price Code: Gr 4
22 pages
Identical to ISO 13912:2008, CHS 214:2006

Establishes the basic principles for rules and principles governing the machine sorting of timber for use in structural applications.

COMESA ZWS ISO14931:2007
Leather – Guide to the selection of leather for apparel (excluding furs)
Price Code: Gr 3
4 pages
Identical to ISO14931:2004, CHS 237:2006

Gives recommended values and related test method for apparel leather excluding furs. This document also specifies the sampling and conditioning procedures of laboratory samples.

COMESA ZWS HS ISO 16020:2006
Steel for reinforcement and prestressing of concrete – Vocabulary.
Price Code: Gr 6
21 pages
Identical to ISO 16020:2005, CHS 099:2005

Defines terms and symbols to be used in the field of reinforcing and prestressing steel for concrete.

COMESA ZWS HS 16143:2007
Stainless steels for general purposes
Part 1: Flat products
Price Code: Gr 6
23 pages
Identical to ISO 16143-1:2004, CHS 147.1:2005

Specifies the technical delivery conditions for hot/cold rolled sheet/plate and strip for general purposes made of the most important corrosion – resistant stainless steel grades.

Part 2: Semi-finished products, bars, rods and sections
Price Code: Gr 6
25 pages
Identical to ISO 16143-2:2004, CHS 147.2:2005

Specifies a technical delivery conditions for semi-finished products, hot or cold formed bars, rod and sections for general purposes made of the most important corrosion – resistant stainless steel grades.

Part 3: Wire
Price Code: Gr 5
20 pages
Identical to ISO 16143-3:2005, CHS 147.3:2005

Specifies requirements for stainless steel wire for which no product standard exists. It includes round, flat and shaped wire, made of the most commonly used types of stainless steels for general corrosion resistance and high temperature service. The wire maybe supplied in coils or in straightened and cut lengths.

COMESA ZWS HS ISO 17186:2007
Leather – Physical and mechanical tests – determination of surface coating thickness.
Price Code: Gr 3
5 pages
Identical to ISO 17186:2002, CHS 244:2006

Specifies a method for determining the thickness of the surface coating applied to leather when measured under zero compression. It is applicable to all types of leather.

COMESA ZWS HS ISO 17227:2007
Leather – Physical and mechanical tests – determination of dry heat resistance of leather
Price Code: Gr 3
4 pages
Identical to ISO 17227:2002, CHS 248:2006

Specifies a method of determining the dry heat resistance of conditioned leathers. It is applicable to all leathers.

COMESA ZWS HS ISO 18613:2007
Repair of flat wooden pallets
Price Code: Gr 5
16 pages
Identical to ISO 18613:2003. CHS 219:2006

Specifies the maximum defects and damage allowed before a flat wooden pallet shall be repaired and defines the minimum repair criteria that shall be used.

COMESA ZWS HS IEC ADOPTIONS

NOTE: Some COMESA endorsed standards appear under the IEC and ISO sections

COMESA ZWS HS IEC 884-2.5:2009
Plugs and socket-outlets for household and similar purposes
Price Code: Gr. 7
37 pages
Identical to IEC 884-2.5:1995

Applies to shuttered and non-shuttered, fused and non-fused adaptors for a.c only.

COMESA ZWS HS IEC 60034:2013
Rotating electrical machines
Part 11: Thermal protection
Price Code: Gr.6
25 pages
Identical to IEC 60034.11, CHS 282.11:2007

Specifies requirements relating to the use of thermal protectors and thermal detectors incorporated into the stator windings or placed in other suitable positions in induction machines in order to protect them against serious damage due to thermal overloads.

COMESA ZW HS IEC 60038:2013
Standard voltages
Price Code: Gr. 4
21 pages
Identical to IEC 60038:1997, CHS 288:2007

Applies to a.c. transmission, distribution and utilization systems and equipment for use in such systems with standard frequencies 50Hz having a nominal voltage above 100V.

COMESA ZW HS IEC 60041:2017
Field accepted tests to determine the hydraulic performance of hydraulic turbines, storage pumps and pump-turbines
Price Code: Gr. 14
419 pages
Identical to IEC 60050-466:1990, FDHS 283

Specifies methods for any size and type of impulse or reaction turbine, storage pump or pump turbine. Determines whether the contract guarantees have been fulfilled and deals with the rules governing these tests as well as the methods of computing the results and the content and style of the final report.

COMESA ZW HS IEC 60050-421:2017
International electrotechnical vocabulary – Overhead lines
Price Code: Gr. 7
37 pages
Identical to IEC 60050-466:1990, FDHS 275

Covers terms and definitions used within power transformers and reactors

COMESA ZW HS IEC 60050-461:2017
International electrotechnical vocabulary – Overhead lines
Price Code: Gr. 7
29 pages
Identical to IEC 60050-466:1990, FDHS 276

Covers terms and definitions used for electrical cable

COMESA ZW HS IEC 60050-466:2017
International electrotechnical vocabulary – Overhead lines
Price Code: Gr. 7
49 pages
Identical to IEC 60050-466:1990, FDHS 277

Covers terms and definitions used within the Overhead lines

COMESA ZW HS IEC 60059:2013
Standard current ratings
Price Code: Gr..7
5 pages
Identical to IEC 60059, CHS 289:2007

Specifies standard current ratings for electrical devices, apparatus, instruments and equipment and should be applied to the designing of utilization systems or equipment as well as to operating characteristics.

COMESA ZW HS IEC 60076:2013
Power transformers
Part 1: General
Price Code: Gr. 7
89 pages
Identical to IEC 60076:2000, CHS 303.1:2010

Applies to three –phase and single-phase power transformers (including auto-transformers) with the exception of certain categories of small and special transformers.

COMESA ZW HS IEC 60104:2013
Aluminium – magnesium – silicon alloy wire for overhead line conductors
Price Code: Gr. 5
11 pages
Identical to IEC 60104, CHS 309:2007

Applicable to aluminium-magnesium-silicon alloy wires of two types having different mechanical and electrical properties for the manufacture of stranded conductors for overhead power transmission purposes.

COMESA ZW HS IEC 60227:2009
Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V
Part 1: General requirements
Price Code: Gr. 6
39 pages
Identical to IEC 60227.1:1998, CHS 225.1:2006

Applies to rigid and flexible cables with insulation and sheath if any based on polyvinyl chloride of rated voltages UolU up to and including 450/750 V used in power installations of nominal voltage not exceeding 450/750 V.

Part 2: Test methods
Price Code: Gr. 5
25 pages
Identical to IEC 60227.2:2003, CHS 225.2:2006

The methods of carrying out the tests specified in all parts of IEC 60227.

Part 3: Non – sheathed cables for fixed wiring
Price Code: Gr. 6
33 pages
Identical to IEC 60227.3:1997, CHS 225.3:2006

Details the particular specifications for polyvinyl chloride insulated single-core non-sheathed cables for fixed wiring of rated voltages up to and including 450/750 V.

Part 4: Sheathed cables for fixed wiring
Price Code: Gr. 5
39 pages
Identical to IEC 60227.4:1997, CHS 225.4:2006

Details the particular specification for light polyvinyl chloride sheathed cables of rated voltage of 300/500 V

Part 5: Flexible cables (cords)
Price Code: Gr. 6
43 pages
Identical to IEC 60227.5:2003, CHS 225.5:2006

Details the particular specifications for polyvinyl chloride insulated flexible cables (cords) of rated voltages up to and including 300/500 V.

Part 6: Lift cables and cables for flexible connections
Price Code: Gr 6
39 pages
Identical to IEC 60227.6:2001, CHS 225.6:2006

Details the particular specifications for both circular and flat lift cables and cables for flexible connections of rated voltages up to and including 450/750 V.

Part 7: Flexible cables screened and unscreened with two or more conductors
Price Code: Gr. 6
21 pages
Identical to IEC 60227.7:2003, CHS 225.7:2006

Details the particular specifications for polyvinyl chloride insulated screened control cables of rated voltages up to and including 300/500 V.

COMESA ZW HS IEC 60228:2009
Conductors for insulated cables
Price Code: Gr. 7
37 pages
Identical to 60228:2004, CHS 221:2005

Specifies the nominal cross-sectional areas, in the range 0, 5 mm^2 to 2 500 mm^2 for conductors in electric power cables and cords of a wide range of types. Requirements for numbers and sizes of wires and resistance values are
also included. These conductors include solid and stranded copper, aluminium and aluminium alloy conductors in cables for fixed installations and flexible copper conductors.

COMESA ZW HS IEC 60309:2009
Plugs socket-outlets and couplers for industrial purposes
Part 1: General requirements
Price Code: Gr. 10
183 pages
Identical to IEC 60309.1:2005, CHS 226.1:2006

Applies to plugs and socket-outlets, cable couplers and appliance couplers with a rated operating voltage not exceeding 690V d.c or a.c and 500 Hz a.c and a rated current not exceeding 250 A, primarily intended for industrial use either indoors or outdoors.

Part 2: Dimensional interchangeability requirements for pin and contact tube accessories
Price Code: Gr. 9
101 pages
Identical to IEC 60309.2:2005, CHS 226.2:2006

Applies to plugs and socket-outlets, cables couplers and appliance couplers with a rated operating voltage not exceeding 690 V, 500 Hz and a rated current not exceeding 125 A primarily intended for industrial use, either indoors or outdoors

COMESA ZW HS IEC 60433:2013
Insulators for overhead lines with a nominal voltage above 1000 V – Ceramic insulators for A.C. systems – Characteristics of insulator units of the long rod type
Price Code: Gr. 4
13 pages
Identical to IEC 60433:1998, CHS 228:2006

Applies to string insulator units of the long rod type with insulating parts of ceramic material intended for use in a.c. overhead power lines with a nominal voltage greater than 1000 V and a frequency not greater than 100 Hz. It is also applicable to insulators of similar design, used in substations.

COMESA ZW HS IEC 60502:2009
Power cables with extruded insulation and their accessories for rated voltages from 1 kV (U_m = 1,2 Kv) Up to 30 Kv (U_m = 36 kV)
Part 1: Cables for rated voltages of 1 kV (U_m 1,2 Kv) and 3 kV (U_m = 3,6 kV)
Price Code: Gr. 7
115 pages
Identical to IEC 60502.1:1998, CHS 227.1:2006

Specifies the construction, dimensions and test requirements of power cables with extruded solid insulation for rated voltages of 1 Kv (U_m = 1,2 kV) and 3 kV (U_m = 3,6 kV) for fixed installations such as distribution networks or industrial installations.

Part 2: Cables for rated voltages of 6 kV (U_m = 7,2 kV) up to 30 kV (U_m = 36 kV)
Price Code: Gr 7
157 pages
Identical to IEC 60502.2:2005, CHS 227.2:2006

Specifies the construction, dimensions and test requirements of power cables with extruded solid insulation from 6 kV up to 30 kV for fixed installations such as distribution networks or industrial installations.

Part 4: Test requirements on accessories for cables with rated voltages of 6 kV (U_m = 7,2 kV) up to 30 kV (U_m = 36 kV)
Price Code: Gr 7
61 pages
Identical to IEC 60502.4:2005, CHS 227.4:2006

Specifies the test requirements for type testing of accessories for power cables with rated voltages from 3, 6/6 (7, 2) kV up to 18/30 (36) kV, complying with IEC 60502.2.

COMESA ZW HS IEC 60884:2009
Plugs and socket-outlets for household and similar purposes
Part 1: General requirements
Price Code: Gr 12
247 pages
Identical to IEC 60884.1:2002, CHS 229.1:2006

Applies to plugs and fixed or potable socket-outlets for a.c only with or without earthing contact with a rated voltage greater than

50V but not exceeding 440V and a related current not exceeding 32A intended for household and similar purposes either indoors or outdoors.

COMESA ZW HS IEC 60884-2.1:2009
Plugs and socket-outlets for household and similar purposes
Part 2: Particular requirements for fused plugs
Price Code: Gr 5
15 pages
Identical to IEC 60884-2.1:1987, CHS 229.2.1:2006

Applies where fuses are primarily intended to protect the flexible cable or cord (e.g. with ring circuits). The fuses are not intended to protect appliances or parts of them against overload

COMESA ZW HS IEC 60884-2.2:2009
Plugs and socket-outlets for household and similar purposes
Part 2: Particular requirements for socket-outlets for appliances
Price Code: Gr 6
25 pages
Identical to IEC 60884-2.2:1989, CHS 292.2.2:2006

Applies to socket-outlets integrated or intended to be incorporated in or fixed to appliances (hereinafter referred to as "socket-outlets for appliances

COMESA ZW HS IEC 60888:2009
Hard-drawn aluminium wire for overhead line conductors.
Price Code: Gr 3
9 pages
Identical to IEC 60888:1987, CHS 223:2006

Applicable to hard-drawn aluminium wires for the manufacture of stranded conductors for overhead power transmission purposes. It specifies the mechanical and electrical properties of wires in the diameter range 1.25mm to 5.00mm.

COMESA ZW HS IEC 60889:2009
Zinc-coated steel wires for stranded conductors
Price Code: Gr. 5
25 pages
Identical to IEC 60889:1987, CHS 22:2005

Applies to zinc-coated steel wires used in the construction and/or reinforcement of conductors for overhead power transmission purposes.

COMESA ZW HS IEC 61140:2013
Protection against electric shock – Common aspects for installation and equipment
Price Code: Gr. 8
83 pages
Identical to IEC 61140:2001, CHS 301:2010

Applies to the protection of persons and animals against electric shock. It is intended to give fundamental principles and requirements which are common to electrical installations, systems and equipment or necessary for their co-ordination.

COMESA ZW HS IEC 61328:2013
Live working – Guidelines for the installation of transmission line conductors and earth wires – Stringing equipment and accessory items
Price Code: Gr. 7
131 pages
Identical to IEC 61328:2003, CHS 311:2007

Provides recommendations for the selection and testing where necessary of conductor stringing equipment and accessory items used for the installation of overhead conductors and overhead earthwires.

COMESA ZW HS IEC 61378:2013
Convertor transformers
Part 1: Transformers for industrial applications
Price Code: Gr. 6
57 pages
Identical to IEC 61378.1:1997, CHS 310.1:2010

Deal with the specification, design and testing of power transformers and reactors which are intended for integration within semiconductor convertor plants. It is not applicable to transformers designed for industrial or public distribution of a.c. power in general.

Part 2: Transformers for HVDC applications
Price Code: Gr. 5
45 pages
Identical to IEC 61378.2:2001, CHS 310.2:2010

Applies to oil-immersed three-phase convertor transformers for use in HDVC power transmission. It applies to transformers having two, three or multiple windings.

COMESA ZW HS IEC 61427:2009
Secondary cells and batteries for photovoltaic energy systems (PVES) – General requirements and methods of test
Price Code: Gr 5
29 pages
Identical to IEC 61427:2005, CHS 220:2006

Gives general information relating to the requirements of the secondary batteries used in photovoltaic energy systems (PVES) and to the typical methods of test used for the verification of battery performances.

COMESA ZW HS IEC 61466:2013
Composite string insulator units for overhead lines with a nominal voltage greater than 1 000V
Part 1: Standard strength classes and end fittings
Price Code: Gr. 7
43 pages
Identical to IEC 61466.1:1997, CHS 297.1:2010

Applicable to composite string insulator units for a.c. overhead lines with a nominal voltage greater than 1 000V and a frequency not greater than 100Hz. It also applies to insulators of similar design used in substations or on electric traction lines.

Part 2: Dimensional and electrical characteristics
Price Code: Gr. 4
13 pages
Identical to IEC 61466.2:2002, CHS 297.2:2010

Applies to composite string insulator units with a specified mechanical load (SML) of 40 Kn to 210 Kn for a.c. overhead lines with a nominal voltage greater than 1 000V and a frequency not greater than 100Hz.

COMESA ZW HS IEC 61865:2013
Overhead lines - Calculation of the electrical component of distance between live parts and obstacles – Method of calculation
Price Code: Gr. 7
45 pages
Identical to IEC 61865:2001, CHS 299:2007

Provides guidance for the calculation of electrical distances between live and earthed parts required to prevent air-gap breakdown which may endanger members of the public who legitimately come close to live parts. It is applicable only to overhead lines designed to operate at more than 45kV phase-to-phase a.c.

COMESA ZW HS IEC 62219:2009
Overhead electrical conductors – Formed wire, concentric lay, stranded conductors
Price Code: Gr 6
47 pages
Identical to IEC 62219:2002, CHS 224:2006

Specifies the electrical and mechanical characteristics of concentric lay, overhead conductors of wires formed or shaped before, during or after stranding.

STANDARDS ASSOCIATION OF ZIMBABWE

ZWS SADC ADOPTIONS

SADC ZWS HS 78:2017
Canned Sardines and Sardine-Type Products
Price Code: Gr 5
8 pages
Identical to SADCSTAN HS 78:2017

This Standard applies to canned Sardines-type products packed in water or oil or other suitable packing medium.It does not apply to products where fish content constitute less than 50% m/m of the net contents of the can.

SADC ZWS HS 79:2017
Dried Fresh Water Small Pelagics
Price Code: Gr 4
5 pages

Standard applies to farmed fresh whole bream of genus Oreochromis and Tilapia,For direct consumption or further processing.

SADC ZWS HS 80:2017
Farmed Tilapia (Bream)
Price Code: Gr 4
6 pages

Specifies the requirements and methods of test for dried Rastrineobola argentea ,Rastrineobola sardella , Stolothrissa tanganicae , Limnothrissa miodon ,and Poecilothrissa moeruensis and Engraulicypris bangweuluensis.

SADC ZWS HS 81:2017
Fresh And Frozen Whole Fin Fish
Price Code: Gr 5
8 pages
Identical to SADCSTAN HS 81:2017

This Standard specifies requirements and methods of sampling and test for fresh and frozen whole fin fish intended for human consumption.

SADC ZWS HS 82:2017
Fresh And Chilled Fish
Price Code: Gr 5
9 pages

This standard applies to fresh and chilled fish as defined and offerd for direct consumption without further processing .It does not apply to products indicated as intended for further processing or for other industrial use.

SADC ZWS HS 83:2017
General Standard For Quick Frozen Fish Fillets
Price Code: Gr 5
8 pages
Identical to SADCSTAN HS 83:2017

This Standard applies to quick frozen of fish as defined below and offerd for direct consumption without further processing.It does not apply to products indicated as intended for further processing or for other industrial purposes.

SADC ZWS HS 84:2017
Smoked Finfish, Smoke –Flavoured Finfish And Smoke-Dried Finfish
Price Code: Gr 6
11 pages

This standard applies to smoked , smoke0flavoured and smoked –dried finfish prepared from fresh ,chilled or frozen raw material. It deals with whole finfish, fillets and sliced and similar products thereof.

SADC ZWS HS 85:2017
Salted fish and dried salted fish
Price Code: Gr 6
14 pages
Identical to SADCSTAN HS 85:2017

This Standard applies to salted fish and dried salted fish which has been fully saturated with salt (heavy salted) or to salted fish which has been preserved by partial saturation to a salt content not less than 12% by weight of the salted fish for human consumption.

SADC ZWS HS 86:2017
Fish Sausages
Price Code: Gr 4
7 pages

This standard specifies requirements and methods of sampling and test for fish sausages intended for human consumption or as an ingredient in other foods.

SADC ZWS HS 87:2017
Crackers from marine and fresh fish,crustacean and Molluscan shellfish
Price Code: Gr 4
8 pages
Identical to SADCSTAN HS 87:2017

This Standard specifies requirements crackers,biscuits and other similar snacks prepared from marine and freshwater fish,crustacean and molluscan shellfish

SADC ZWS HS 88:2017
Good Aquaculture Practices Bream (TILAPIA) Farm
Price Code: Gr 6
16 pages

This standard applies to Good Aquaculture Practices (GAP) for bream (Tilapia) in pond and cage farming including harvesting and post –Harvest handling in order to produce products of good quality and safe for consumption.This standard however does not cover hatching and nursing.

SADC ZWS HS 89:2017
Railway Safety Management General
Price Code: Gr 7
49 pages

This SADC SARA standard describes the minimum elements of safety management system (SMS) to enable the RAs to develop an SMS for the management of safe railway operations under his\her control ,taking into account each of the following in the following in the asset life cycle phases.

SADC ZWS HS 90:2017
Technical requirements for engineering and operational standards -General
Price Code: Gr 5
12 pages

This SADC SARA HT 90 gives the generic technical requirements for engineering and operational systems that from part of a railway safety management system which complies with the SADC SARA HT 90 Regional Safety Policy

SADC ZWS HS 91:2017
Technical requirements for engineering and operational standards –Track ,civil and electorical infrastructure
Price Code: Gr 7
28 pages

This Standard covers the asset life cycle components of design, construction/manufacturing and implementation, commissioning, monitoring and maintainance, modification and decommissioning and disposal

SADC ZWS HS 92:2017
Technical requirements for engineering and operational standards –Rolling Stock
Price saCode: Gr 5
13 pages

This Standard covers the asset life cycle components of design ,construction/manufacturing and implementation ,commissioning ,monitoring and maintainance ,modification and decommissioning and disposal of rolling stock

SADC ZWS HS 93:2017
Human factors management
Price Code: Gr 9
122 pages

This Standard provides the minimum requirements to RA's for the management of HF for employees who undertake safety-related work.It is to read and implement in conjuction with the relevant national legislation standards applicable in the country in which the RA operates as well as other SARA safety standards

SADC ZWS HS 94:2017
Technical requirements for engineering and operational standards –Track, civil and electorical infrastructure level crossing
Price Code: Gr 7
43 pages

This Standard aims to provide guidance and information for the utilization of standards applicable to the transportation of dangerous goods adopted by SADCTAN/TC2 SARA members in accordance with the provisions of the Southern African Development Community Protocol on Transport, Communications and Meteorology.

SADC ZWS HS 95:2017
Technical requirements for engineering and operational standards – Operational principles for safe movement on rail
Price Code: Gr 6
17 pages

This Standard covers the minimum requirements for operational principles for safe movement on rail.It includes the operational to be complied with to ensure that operational safety is appropriately addressed in all operational circumstances.

SADC ZWS HS 96:2017
Requirements for systematic engineering and operational safety standards – Train authorisation and control and telecommunications
Price Code: Gr 8
48 pages

This Standard covers the minimum requirements for train authorization and control systems and telecommuniactions systems,which provide a means to enable safe train and shunt movements of rolling stock through the use of appropriate technology.

SADC ZWS HS HT :104:2020
ARS ZW HS 1371:2022
Cross border road Management System
Price Code: Gr 7
28 pages

This Standard is designated for appalication by member states of the Tripartite Region.It is a self regulatory scheme that encourages cross boarder transport operators to implement a cross boarder road Transport Management System

SADC ZWS HT 105 Part 1:2020
ARS ZW HS 1355 Part 1:2022
Vehicle Standards –Specification For vehicle Road Worthiness Part 1: Roadworthiness of vehicles already in use
Price Code: Gr 7
30 pages

This Part 1 of the specification covers the requirements for the examination and testing for roadworthiness of motor vehicles operating within the territories and across the borders within the Tripartite Region of COMESA-EAC-SADC.

SADC ZWS HS HT 105 Part 2 :2020
ARS ZW HS 1355: Part 2:2022
Vehicle Standards –Specification For vehicle Road Worthiness Part 2: Roadworthiness of vehicles prior to entry into service and thereafter
PriceCode: Gr 6
28 pages

Part 2 of this specification deals with methods and considerations to provide for the future introduction of more advanced safety requirements such as those detailed in Table 1 whilst offering options to minimize costly and burdensome technical and administrative controls and procedures. It caters for the situation where many countries or regions have requirements which differ in certain detail, but which are intended and designed to afford a reasonable degree of safety to the vehicle occupants and to other road users. Examples of where differences between national or regional requirements do, or may exist, but which are considered as providing an equal or an acceptable degree of safety are given in Table 2 using UN ECE Regulations as the base.

SADC ZWS HS HT 105 Part 3 :2020
ARS ZW ARS HS 1355 Part 3: 2022
Vehicle Standards –Specification For vehicle Road Worthiness Part 3: Supporting Information
Price Code: Gr 7
46 pages

Covers the requirements intended to support the vehicle examiner and test stations using other Parts of this specification

SADC ZWS HS HT 105 Part 4 :2020
ARS ZW HS Part 4:2022
Vehicle Standards –Specification For vehicle Road Worthiness
Part 4: Requirements for vehicles examiners
Price Code: Gr 6
28 pages

Covers information intended to aid in the selection and appointment of vehicle examiners their duties ,their training and ongoing updating of vehicle examiners

SADC ZWS HT 105 Part 5 :2020
ARS ZW HS 1355:2020
Vehicle Standards – Specification For vehicle Road Worthiness
Part 5: Requirements for Testing Equipment
Price Code: Gr 6
28 pages

This specification contains information on selection and installation of testing equipment required to test the roadworthiness of vehicles in arcodance with the requirements for the range of defined test lane classes that compromise the defined vehicle test station categories

SADC ZWS HT 105 Part 6 :2020
ARS ZW HS 1355:Part 6:2022
Vehicle Standards – Specification For vehicle Road Worthiness
Part 6: Requirements For Combination Of Vehicles
Price Code: Gr 3
28 pages

This specification contains information to aid vehicle examiners or any person wishing to perform a visual inspection to determine whether a vehicle combination exhibits features or conditions which would result in it being classed as unworthy

SADC ZWS HT 106 Part 1 :2020
ZWS ISO/IEC 18013: Part 1:2018
Information Technology - Personal Identication – ISO-Compliant Driving licence
Part 1: Physical characteristics and basic data set
Price Code: Gr 8
90 pages

This document establishes guidelines for the design format and data content of an ISO-compliant driving licence (IDL) in regard to both visual human-readable features and ISO machine-readable technologies. It creates a common basis for international use and mutual recognition of the IDL without impeding individual national/community/regional motor vehicle authorities in taking care of their specific needs.

SADC ZWS HS HT 106 Part 2 :2020
ZWS ISO/IEC 18013: Part 2:2018
Part 2: Machine Readable Technologies
Price Code: Gr 8
90 pages

ISO/IEC 18013 establishes guidelines for the design format and data content of an ISO-compliant driving licence (IDL) with regard to human-readable features (ISO/IEC 18013-1), ISO machine-readable technologies (ISO/IEC 18013-2), and access control, authentication and integrity validation (ISO/IEC 18013-3). It creates a common basis for international use and mutual recognition of the IDL without impeding individual countries/states in applying their privacy rules and national/community/regional motor vehicle authorities in taking care of their specific needs.

SADC ZWS HS HT 106 Part 2:2020
ZWS ISO/IEC 18013: Part 3:2017
Part 3: Access control, authentication and integrity validation
Price Code: Gr. 8
202 pages

ISO/IEC 18013 establishes guidelines for the design format and data content of an ISO-compliant driving licence (IDL) with regard to human-readable features (ISO/IEC 18013-1), machine-readable technologies (ISO/IEC 18013-2), and access control, authentication and integrity validation (ISO/IEC 18013-3). It creates a common basis for international use and mutual recognition of the IDL without impeding individual countries/states to apply their privacy rules and national/community/regional motor vehicle authorities in taking care of their specific needs

SADC ZWS HS HT 106 Part 4:2020
ZWS ISO/IEC 18013: Part 4:2019
Part 4: Test methods
Price Code: Gr 8
208 pages

This document describes the test methods used for conformity testing, that is methods for determining whether a driving licence can be considered to comply with the requirements of the ISO/IEC 18013 series for: machine readable technologies (ISO/IEC 18013-2), and access control, authentication and integrity validation (ISO/IEC 18013-3). The test methods described in this document are based on specifications defined in ISO/IEC 18013-2 and ISO/IEC 18013-3 and underlying normative specifications. This document deals with test methods specific to IDL requirements. Test methods applicable to (smart) cards in general (e.g. those specified in the ISO/IEC 10373 series) are outside the scope of this document.

SADC ZWS HS 107:2020
ARS ZW HT 107:2022
Transportation of dangerous goods by road
Price Code: Gr. 11
261 pages
Adoption of SADC HT 107:2019

This standard establishes requirements for the safe operation of all road vehicles used for the transport of dangerous goods.
-In quantities in excess of the specified exempt quantities
-In operations that are not exempt from compliance with this standard.
The following elements of the road transport operation are included in this standard:
-The classification of dangerous goods
-The operation of dangerous good vehicles, which in turn, includes responsibilities and requirements for the consignor, the consignee, the operator, the driver and the qualified person as well as en route procedures
-Loading, off-loading of vehicles and the handling of dangerous goods in the course of the operation
-Load constraints and cargo handling
-Requirements governing vehicle and equipment design and construction
-Vehicle and equipment maintenance, inspections and tests
-Information systems and documentation

SADC ZWS HT 108:2022
Honey
Price Code: Gr 5
13 pages
Replaces COMESA ZWS HS 349:2004

This Standard applies to all honeys produced by honey bees and covers all styles of honey presentations which are processed and ultimately intended for direct consumption.

SADC ZW HT 109:2023
Quality and Performance Standard for Lighting Products
Price Code: Gr.7
38 pages

This standard covers the energy efficiency and functional performance of four main categories of general lighting products:
● Lamps:
o General service lamps; and Tubular lamps;
● Luminaires:
o Certain indoor ambient luminaires; and Outdoor / streetlight luminaires.
Note 1 – Product safety standards for the products covered in the scope of this performance standard are published in other regulatory notices. It is expected that the country/jurisdiction would ensure the product meets the required safety standard prior to assessing the product for performance compliance.
Note 2 – The scope of luminaires covered concerns the provision of new luminaires and not the replacement of lamps in existing luminaires. Lamps that do not meet the criteria in the definition of general service lamps, including for example, certain high-intensity discharge (HID) lamps used as replacement lamps, are not included in the scope of this quality and performance standard.

SADC ZW HT 110:2024
Minimum Energy Performance Standards for Air Conditioners (MEPS)
Price Code: Gr 5
24 pages
Identical to SADC HT 110:2023

This harmonized standard applies to all new electrical non-ducted single-split, self-contained air-cooled air conditioners, air-to-air reversible heat pumps, and portable air conditioners, with a rated cooling output of at or below 16 kilo-Watts (kW) placed on the market for any application.

SADC ZW HT 111:2024
Minimum Energy Performance Standards for Refrigerating Appliances (MEPS)
Price Code: Gr 5
19 pages
Identical to SADC HT 111:2023

This harmonized standard applies to all refrigerating appliances of the vapor compression type, with a rated volume at or above 10 Liters (L) and at or below 1,500 L, powered by electric mains and offered for sale or installed in any application.

SADC ZWS HS 180:2008
Industrial restraint belts
Price Code: Gr 5
13 pages
Replaces ZWS 180:1998

Specifies the general design, material, construction and performance requirements for industrial restraint belts.

SADC ZWS HS 318:2004
Uniform provisions concerning the approval of pneumatic tyres for commercial vehicles and their trailers
Price Code: Gr 7
44 pages
Identical to UN ECE Regulation 54

Applies to new pneumatic tyres primarily designed for use by all road vehicles.

SADC ZWS HS 328:2004
Uniform provisions concerning the approval of pneumatic tyres for motor vehicles and their trailers
Price Code: Gr 7
34 pages
Identical to UN ECE Regulation 30

Covers new pneumatic tyres designed primarily not only for vehicles in categories M_1, O_1, and O_2.

SADC ZWS HS 630:2006
Metrological and technical requirements for non – automatic, non – self or semi – self indicating, ungraduated counter scales subject to legal metrology control
Price Code: Gr 4
9 pages

Specifies the metrological and technical requirements for non-automatic, non-self or semi-self indicating, ungraduated vibrating counter scales that are subject to metrological control in terms of legal metrology legislation.

SADC ZWS HS 715:2006
Metrological and technical requirements for non automatic, denominated beam scales and balances subject to legal metrology control
Price Code: Gr 5
12 pages

Specifies the metrological and technical requirements for non-automatic, undenominated beam scales and balances that are subject to metrological control in terms of legal metrology legislation.

SADC ZWS HS 899:2010
High penetration – Resistant laminated safety glass for vehicles
Price Code: Gr.5
13 pages

Covers high penetration-resistant laminated safety glass including bullet-resistant glazing materials for use in vehicles.

SADC ZWS HS 911:2003
Frozen lobster and frozen lobster products
Price Code: Gr 8
7 pages

Covers requirements for handling preparation, processing, packaging, freezing, storage and quality of frozen lobster tails, frozen whole lobster (cooked or raw) or any other frozen lobster product derived from lobsters. Also covers requirements for factories and employees involved in the production.

SADC ZWS HS 912:2003
Frozen shrimps (prawns) langoustines and crabs
Price Code: Gr 7
30 pages

Covers the requirements for the hygienic harvesting, preparation, processing and shrimps langoustines and crabs whether frozen at sea or on shore and the
requirements for raw materials and the final product including its packaging and storage.

SADC ZW HS 943:2014
Lights for motor vehicles
Part 1: Incandescent lamps
Price Code: Gr. 7
43 pages

Covers incandescent tungsten filament lamps of the following categories for use in motor vehicles and trailers.

Part 2: Headlights
Price Code: Gr. 5
14 pages
Covers the requirements for the photometric properties of headlights emitting an asymmetrical dipped beam or a main beam, or both, and used in headlight system meeting left-hand rule-of-road requirements.

Part 3: Secondary lights
Price Code: Gr. 6
25 pages

Covers the photometric characteristics of secondary lights for vehicles, (i.e. position lights, stop lights, direction-indicator lights, parking lights, reversing lights, rear registration-plate lights and end-outline marker lights) and of assemblies of these.

SADC ZW HS 944:2014
The determination of performance (at net power) of internal combustion engines
Part 1: Road Vehicle Internal Combustion Engines at Sea Level
Price Code: Gr. 4
33 pages

Covers a method for testing engines designed for road vehicles. It is applicable to the evaluation of their performances with a view, in particular, to presenting curves of power, torque and specific fuel consumption at full load as a function of engine speed.

Part 2: Compression ignition engines at altitude
Price Code: Gr. 4
9 pages

Covers a method for determining the net power of compression ignition engines at an altitude of 1 400m above sea level.

Part 3: Agricultural vehicle internal combustion engines at sea level
Price Code: Gr. 7
33 pages

Covers a bench method for testing the following categories of engines, which are intended for use in agricultural tractors and machines which may be fitted with a supercharging device using a mechanical supercharger or turbocharger.

SADC ZW HS 945:2014
Braking motor and towed vehicles, designed for low speed or for use off public roads
Part 1: Low speed vehicles
Price Code: Gr. 7
12 pages

Applies to the braking systems of low speed motor vehicles with a maximum design speed of between 6km/h and 40km/h and motor vehicles for use off public roads.

Part 2: Low speed trailers
Price Code: Gr. 7
23 pages

Applies to the braking systems of low speed trailers, including trailers purely for agricultural and forestry purposes, with a maximum design speed of between 6km/h and 40 km/h.

SADC ZW HS 946:2014
Anchorages for Restraining Devices in Motor Vehicles
Price Code: Gr. 5
14 pages

Covers requirements for the location, dimensions and strength of anchorages for safety belt assemblies and lap belts for adult occupants of forward-facing seats of vehicles of categories M and N, as defined in SANS 1207.

SADC ZW HS 947:2014
Rear underrun protection devices
Price Code: Gr. 5
6 pages

Covers requirements for rear underrun protection devices and their installation on category M,N and O vehicles having a gross vehicle mass (GVM) exceeding 3 500kg and intended for use on public roads except for the vehicles listed in 1.2.

SADC ZW HS 948:2014
The measurement of noise emitted by road vehicles when stationary
Price Code: Gr.4
8 pages

Covers the measurement at a readily available site of noise produced by road vehicles when stationary as a check on vehicles in service.

SADC ZW HS 949.4:2014
Retro-Reflective and Fluorescent Warning Signs for Road Vehicles
Part 4. Retro-Reflective Chevron Signs
Price Code: Gr.5
13 pages

Covers requirements for retro-reflective chevron signs that incorporate a substrate and that are intended for use on motor vehicles that operating on public roads.

SADC ZW HS 949.5:2014
Retro- Reflective and Fluorescent Warning Signs for Road Vehicles
Part 5. Retro-Reflective Chevron Decals
Price Code: Gr.5
14 pages

Covers requirements for retro-reflective warning signs manufactured as protective coated chevron decals having self-adhesive bases of pigmented vinyl or other polymeric material and intended for use on motor vehicles operating on public roads.

SADC ZW HS 979:2014
Uniform provisions concerning the approval of retro-reflecting devices for power driven vehicles and their trailers
Price Code: Gr. 7 23 pages

This regulation applies to retro-reflecting devices used on road vehicles.

SADC ZW HS 980:2014
Globally harmonized system of classification and labelling of chemicals (GHS)
Price Code: Gr. 13 315 pages

Covers the harmonized criteria for the classification of hazardous substances and mixtures including waste for their safe transport use at the workplace or in the home according to their health, environmental and physical hazards. It gives the harmonized communication elements for labeling and safety data sheets.

SADC ZW HS 981:2014
Burnt clay masonry units – Specification
Price Code: Gr. 6
22 pages
Replaces ZWS 221:1996

Covers burnt clay masonry units for use in masonry walling

SADC ZW HS 982:2014
Concrete masonry units – Specification
Price Code: Gr. 6
Amended by MD 623:2000, MD 659:2005
17 pages
Replaces ZWS 119:1995

Covers precast solid and precast hollow concrete masonry units for use in walling.

SADC ZW HS 983:2014
Rammed earth structures – Code of practice
Price Code: Gr. 7
40 pages

Gives guidance on the design, construction and test methods for rammed earth structures.

ZWS ARS ISO ADOPTIONS

ZWS ARS ISO 8548: Part 1:1989
Prosthetics and orthotics – Limb deficiencies
Part 1:1989: Method of describing limb deficiencies present at birth
Price Code: Gr 5
12 pages
Identical to ISO 8548-1:1989

This document specifies the operation of a drive-through screening station (DTSS) for mass testing as part of pandemic response management.
NOTE: COVID-19 is an exemplary disease for which such a station is developed.

ZWS ARS ISO 8548: Part 2:2020
Prosthetics and orthotics – Limb deficiencies
Part 2:2020: Method of describing lower limb amputation stumps
Price Code: Gr 5
20 pages
Identical to ISO 8548-2:2020

This document establishes a method of describing and measuring lower limb amputation stumps. It also lists the measurements required for the provision of a prosthesis.

ZWS ARS ISO 8548: Part 3:1993
Prosthetics and orthotics – Limb deficiencies
Part 3:1993: Method of describing upper limb amputation stumps
Price Code: Gr 5
20 pages
Identical to ISO 8548-3:1993

This part of ISO 8548 establishes a method of describing upper limb amputation stumps and for recording the descriptive information.

ZWS ARS ISO 8548: Part 4:1998
Prosthetics and orthotics – Limb deficiencies
Part 4:1998: Description of causal conditions leading to amputation
Price Code: Gr 2
4 pages
Identical to ISO 8548-4:1998

This part of ISO 8548 establishes a method of describing upper limb amputation stumps and for recording the descriptive information.

ZWS ARS ISO 8548: Part 5:2003
Prosthetics and orthotics – Limb deficiencies
Part 5:2003: Description of the clinical condition of the person who has had an amputation
Price Code: Gr 2
2 pages
Identical to ISO 8548-5:2003

This part of ISO 8548 establishes a method of describing those attributes of a person who has had an amputation which may affect their rehabilitation.

ZWS ARS ISO 8549: Part 1:2020
Prosthetics and orthotics – Vocabulary
Part 1:2020: General terms for external limb prostheses and external orthoses
Price Code: Gr 2
2 pages
Identical to ISO 8549-1:2020

This document defines general terms used to describe external limb prostheses and orthoses, and the personnel involved in the practice of prosthetics and orthotics.
NOTE 1: The complete range of levels of limb amputation are listed and defined in ISO 8549-2. The complete range of classes of orthoses are listed and defined in ISO 8549-3.
This document does not apply to breast, ocular or other external prostheses used to replace other parts of the human body, nor to dental prostheses or orthoses.
NOTE 2: For the purposes of this document, the abbreviated term 'prosthetics' and its derivatives only apply to external limb prosthetics. The abbreviated term 'orthotics' and its derivatives only apply to external orthotics.

ZWS ARS ISO 8549: Part 2:2023
Prosthetics and orthotics – Vocabulary
Part 2:2023: Terms relating to external limb prostheses
Price Code: Gr 4
4 pages
Identical to ISO 8549-2:2023

This document defines terms used to describe external limb prostheses. The terms related to the amputation level used to in this document are described in ISO 8549 4. The types of component used in the construction of prostheses are classified and described in ISO 13405 1, ISO 13405 2 and ISO 13405 3.
For the purposes of this document, the abbreviated term ‘prosthetics’ and its derivatives only apply to external limb prosthetics.

ZWS ARS ISO 8549: Part 4:2020
Prosthetics and orthotics – Vocabulary
Part 4:2020: Terms relating to limb amputation
Price Code: Gr 4
4 pages
Identical to ISO 8549-4:2020

This document specifies a vocabulary for the description of surgical limb amputations, amputation procedures, and persons who have had an amputation.

ZWS ARS ISO 12875:2011
Traceability of finfish products — Specification on the information to be recorded in captured finfish distribution chains
Price Code: Gr 7
28 pages
Identical to ISO 12875:2011

This International Standard specifies the information to be recorded in marine-captured finfish supply chains in order to establish the traceability of products originating from captured finfish. It specifies how traded fishery products are to be identified, and the information to be generated and held on those products by each of the food businesses that physically trade them through the distribution chains. It is specific to the distribution for human consumption of marine-captured finfish and their products, from catch through to retailers or caterers.
NOTE: Together with ISO 12877 for farmed finfish, this international Standard provides a basis for implementing chain traceability of finfish.

ZWS ARS ISO 12877:2011
Traceability of finfish products - Specification on the information to be recorded in farmed finfish distribution chains
Price Code: Gr 7
41 pages
Identical to ISO 12877:2011

This International Standard specifies the information to be recorded in farmed finfish supply chains in order to establish the traceability of products originating from farmed finfish. It specifies how traded fishery products are to be identified, and the information to be generated and held on those products by each of the food businesses that physically trade them through the distribution chains. It is specific to the distribution for human consumption of farmed finfish and their products, from finfish meal, breeding and finfish farming through to retailers or caterers.
NOTE: Together with ISO 12875 for captured finfish, this International Standard provides a basis for implementing chain traceability of finfish.

ZWS ARS ISO 12878:2012
Environmental monitoring of the impacts from marine finfish farms on soft bottom
Price Code: Gr 7
30 pages
Identical to ISO 12878:2012

This International Standard establishes an approach for sampling and empirical measurement of soft-bottom impacts from marine finfish net pen farms, and gives examples of detailed procedures for how environmental impacts from finfish net pen farm sites can be monitored in the field, including guidelines for quality assurance of sampling protocols and safety. The emphasis of the environmental impact in this International Standard is on eutrophication effects on the seabed. This International Standard identifies ecological objectives, the indicators used, and the methodology and design, and encompasses guidelines for quality assurance of sampling protocols and operational safety.

ZWS ISO 14020:2022
ARSO ISO ZWS HT 14020:2024
Environmental statements and programmes for products -Principles and general requirements
Price Code: Gr 7
25 pages
Superseeds ISO 14020:1998

This document establishes principles and specifies general requirements that are applicable to all types of product-related environmental statements and environmental statement programmes. Environmental statements result from environmental statement programmes and include self-declared environmental claims, ecolabels, environmental product declarations (EPDs) and footprint communications. This document is intended to be used in conjunction with other standards in the ISO 14020 family.
NOTE: Those other standards contain additional terms and definitions, principles and requirements that are relevant to their specific scopes.

ZWS ISO 14021:2016/Amd 1:2021
ARS ISO ZWS HT 14021:2024
Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling)
Price Code: Gr 6
29 pages
Identical to ISO 14021/AMD 1:2021

This International Standard specifies requirements for self-declared environmental claims, including statements, symbols and graphics, regarding products. It further describes selected terms commonly used in environmental claims and gives qualifications for their use. This International Standard also describes a general evaluation and verification methodology for self-declared environmental claims and specific evaluation and verification methods for the selected claims in this International Standard. This International Standard does not preclude, override, or in any way change, legally required environmental information, claims or labelling, or any other applicable legal requirements.

ZWS ISO 14024:2018
ARSO ISO ZWS HT 14024:2024
Environmental labels and declarations – Type I Environmental labelling – Principles and procedures
Price Code: Gr. 6
15 pages
Identical to ISO 14024:2018

This document establishes the principles and procedures for developing Type 1 environmental labelling programmes, including the selection of product categories, products environmental criteria and product function function characteristics, and for assessing and demonstrating compliance. This document also establishes the certification procedures for awarding the label.

ZWS ARS ISO 16488:2015
Marine finfish Farms - Open net cage — Design and operation
Price Code: Gr 7
25 pages
Identical to ISO 16488:2015

This International Standard presents a general method to be followed for the systematic analysis, design, and evaluation of net cage marine finfish farms. One common style of a net cage finfish farm is shown in Figure 1. A mooring system holds together a series of net cages which contain finfish. Water from the outside environment freely passes through the nets, providing the necessary environment for farming finfish. The methodology presented in this International Standard allows for determination of the adequacy of a given finfish farm's floating structure, nets, and mooring equipment for a given environment. The standard addresses specification of a design basis through evaluation of environmental conditions and acceptable risk, and specifies acceptable techniques for the design and analysis of finfish farms. This International Standard also provides guidelines for development of a handbook which documents procedures for correct maintenance and operation of the finfish farm. The application of the standard is intended to reduce the risk of escape from marine finfish farms. This International Standard is designed to be used by the operator of a net cage marine finfish farm. It is intended that through application of this International Standard that increased human safety and system integrity levels can be achieved.

ZWS ARS ISO 16541:2015
Methods for sea lice surveillance on marine finfish farms
Price Code: Gr 6
12 pages
Identical to ISO 16541:2015

This International Standard specifies both a method for sea lice counts on marine finfish farms and a method for sea lice surveillance that can be carried out in any farming area to provide consistent estimates of sea lice infestation. It specifies the best practices associated with monitoring sea lice levels on marine finfish farms for various purposes including the assessment of abundance, prevalence, and treatment efficacy. This will include identifying minimum requirements for specific monitoring program elements (e.g. number of fish and cages to be sampled, frequency of sampling, the level of detail recorded, etc.). The standard will apply to all marine finfish farms which experience infestation with any of the range of "sea lice" (copepodid) parasites.

ZWS ARS ISO 16664:2017
Gas analysis- Handling of calibration gases and gas mixtures - Guidelines
Price Code: Gr 6
17 pages
Identical to ISO 16664:2017

This document describes factors that may influence the composition of pure gases and homogeneous gas mixtures used for calibration purposes. This document only applies to gases or gas mixtures that are within the "utilization period". It provides the following guidelines for the handling and use of calibration gas mixtures:
—storage of calibration gas cylinders;
—calibration gas withdrawal from cylinders;
—transfer of calibration gas from cylinders to the point of calibration.
It also outlines a method of assessing the stability of a gas mixture, taking into account the gas composition uncertainty given on the certificate and the user's measurement uncertainty.

ZWS ARS ISO 16741:2015
Traceability of crustacean products — Specifications on the information to be recorded in farmed Crustacean distribution chains
Price Code: Gr 7
34 pages
Identical to ISO 16741:2015

This International Standard specifies the information to be recorded in farmed crustacean supply chains in order to establish the traceability of products originating from farm raised crustaceans. It specifies how farmed crustacean products traded are to be identified and the information to be generated and held on those products by each of the food businesses that physically trade them through the distribution chains. It is specific to the distribution for human consumption of crustacean and their products, from farm through to retailers or caterers. The types of business identified in this International Standard for farmed crustacean distribution chains are the following:
a)farming
 1)broodstock collection
 2)hatcheries and nurseries
 3)crustacean farm
 4)harvesting;
b)processors;
c)traders and wholesalers;
d)retailers and caterers;
e)logistics including materials brought from other domains;
f)feed production.

ZWS ARS ISO 17090: Part 1:2021
Health informatics – Public key infrastructure
Part 1:2021: Overview of digital certificate services
Price Code: Gr 7
37 pages
Identical to ISO 17090-1:2021

This document defines the basic concepts underlying the use of digital certificates in healthcare and provides a scheme of interoperability requirements to establish a digital certificate-enabled secure communication of health information. It also identifies the major stakeholders who are communicating health-related information, as well as the main security services required for health communication where digital certificates can be required. This document gives a brief introduction to public key cryptography and the basic components needed to deploy digital certificates in healthcare. It further introduces different types of digital certificates — identity certificates and associated attribute certificates for relying parties, self-signed certification authority (CA) certificates, and CA hierarchies and bridging structures.

ZWS ARS ISO 17090: Part 2:2008
Health informatics – Public key infrastructure
Part 2:2008: Certificate profile
Price Code: Gr 6
26 pages
Identical to ISO 17090-2:2008

This part of ISO 17090 specifies the certificate profiles required to interchange healthcare information within a single organization, between different organizations and across jurisdictional boundaries. It details the use made of digital certificates in the health industry and focuses, in particular, on specific healthcare issues relating to certificate profiles.

ZWS ARS ISO 17090: Part 3:2021
Health informatics – Public key infrastructure
Part 3:2021: Policy management of certification authority
Price Code: Gr 6
35 pages
Identical to ISO 17090-3:2021

This document gives guidelines for certificate management issues involved in deploying digital certificates in healthcare. It specifies a structure and minimum requirements for certificate policies, as well as a structure for associated certification practice statements. This document also identifies the principles needed in a healthcare security policy for cross-border communication and defines the minimum levels of security required, concentrating on aspects unique to healthcare.

ZWS ARS ISO 17117: Part 1:2018
Health informatics – Technological resources
Part 1:2018: Characteristics
Price Code: Gr 7
32 pages
Identical to ISO 17117-1:2018

This document defines universal and specialized characteristics of health terminological resources that make them fit for the purposes required of various applications. It refers only to terminological resources that are primarily designed to be used for clinical concept representation or to those parts of other terminological resources designed to be used for clinical concept representation. This document helps users to assess whether a terminology has the characteristics or provides the functions that will support their specified requirements. The focus of this document is to define characteristics and functions of terminological resources in healthcare that can be used to identify different types of them for categorization purposes. Clauses 4 and 5 support categorization according to the characteristics and functions of the terminological resources rather than the name.
NOTE: Categorization of healthcare terminological systems according to the name of the system might not be helpful and has caused confusion in the past.
The target groups for this document are:
a) organizations wishing to select terminological systems for use in healthcare information systems;
b) developers of terminological systems;
c) developers of terminology standards;
d) those undertaking independent evaluations/academic reviews of terminological resources;
e) terminology Registration Authorities.
This document contains general characteristics and criteria with which systems can be evaluated.
The following considerations are outside the scope of this document.
— Evaluations of terminological resources.
—Health service requirements for terminological resources and evaluation criteria based on the characteristics and functions.

—The nature and quality of mappings between different terminologies. It is unlikely that a single terminology will meet all the terminology requirements of a healthcare organization: some terminology providers produce mappings to administrative or statistical classifications such as the International Classification of Diseases (ICD). The presence of such maps would be a consideration in the evaluation of the terminology.

—The nature and quality of mappings between different versions of the same terminology. To support data migration and historical retrieval, terminology providers can provide maps between versions of their terminology. The presence of such maps would be a consideration in the evaluation of the terminology.

—Terminology server requirements and techniques and tools for terminology developers.

—Characteristics for computational biology terminology. Progress in medical science and in terminology science will necessitate updating of this document in due course.

ZWS ARS ISO 17439:2022
Health informatics – Development of terms and definitions for health informatics glossaries
Price Code: Gr 4
10 pages
Identical to ISO 17439:2022

This document provides details of the metadata and requirements for quality terms and definitions in health informatics for inclusion in health informatics glossaries. This document does not cover specification of terminological content in systems, such as that represented in terminological resources, such as SNOMED CT, or, ICD. It is limited to concepts represented as terms and definitions included in standards.
This document is applicable to the following groups:
—Health informatics standards developers and standards development organizations.
—Developers, implementers, and managers of health information systems, clinical information systems, and clinical decision support systems.
—All users of health information systems clinical data, such as health statisticians, researchers, public health agencies, health insurance providers, health risk organizations, data analysts, and data managers.

ZWS ARS ISO 18537:2015
Traceability of crustacean products — Specifications on the information to be recorded in captured crustacean distribution chains
Price Code: Gr 7
28 pages
Identical to ISO 18537:2015

This International Standard specifies the information to be recorded in wild-caught crustacean supply chains in order to establish the traceability of products originating from wild-caught crustacean. It specifies how crustacean products traded are to be identified and the information to be generated and held on those products by each of the food businesses that physically trade them through the distribution chains. It is specific to the distribution for human consumption of crustacean and their products, from wild-caught through to retailers or caterers. The types of businesses identified in this International Standard for wild-caught crustacean distribution chains are:
—capture operators;
—landing businesses and first sale;
—processors;
—transporters and store operators;
—traders and wholesalers;
—retailers and caterers;
—logistics including materials brought from other domains.
Any given crustacean distribution chain may be made up of some or all of the above components but not necessarily in the sequence listed.

ZWS ARS ISO 18538:2015
Traceability of molluscan products — Specifications on the information to be recorded in farmed molluscan distribution chains
Price Code: Gr 7
40 pages
Identical to ISO 18538:2015

This International Standard specifies the information to be recorded in farmed molluscs supply chains (excluding cephalopods) in order to establish the traceability of products originating from farm-raised molluscs. It specifies how molluscan products traded are to be identified and the information to be generated and held on those products by each of the food businesses that physically trade them through the distribution chains. It is specific to the distribution for human consumption of molluscs and their products from farm through to retailers or caterers. The types of businesses identified in this International Standard for farmed molluscan distribution chains are the following:
—farming;
a)broodstock suppliers/natural seed collectors;
b)hatcheries and nurseries;
c)molluscan farm;
d)harvesting;
—depuration and shucking etc.;
—processors;
—transporters and store operators;
—traders and wholesalers;
—retailers and caterers;
—logistics including materials brought from other domains;
—feed production. Any given molluscan distribution chain can be made up of some or all of the above components, but not necessarily in the sequence listed

ZWS ARS ISO 18539:2015
Traceability of Molluscan products — Specifications on the information to be recorded in captured molluscan distribution chains
Price Code: Gr 7
30 pages
Identical to ISO 18539:2015

This International Standard specifies the information to be recorded in wild-caught molluscs supply chains in order to establish the traceability of products originating from wild-caught molluscs. It specifies how molluscan products traded are to be identified and the information to be generated and held on those products by each of the food businesses that physically trade them through the distribution chains. It is specific to the distribution for human consumption of molluscs and their products, from wild caught through to retailers or caterers.
The types of businesses identified in this International Standard for wild-caught molluscan distribution chains are the following:
—capture;
—landing business and first sale;
—depuration and shucking, etc.;
—processors;
—transporters and store operators;
—traders and wholesalers;
—retailers and caterers;
—logistics including materials brought from other domains.
Any given molluscan distribution chain can be made up of some or all of the above components but not necessarily in the sequence listed.

ZWS ARS ISO/TS 19293:2017
Health informatics – Requirements for a record of a dispense of a medicinal product
Price Code: Gr 4
38 pages
Identical to ISO 19293:2017

This document specifies requirements for a record of a dispense of a medicinal product. It is intended to be adopted by detailed, implementable specifications, such as interoperability standards, system specifications, and regulatory programs. This document applies to information systems in which a dispense of a medicinal product is registered, and the systems that consume such information. These systems are usually in pharmacies or other healthcare institutions. This document does not necessarily apply to non-pharmacy shops or other non-clinical systems (e.g. supermarket cashiers). The scope of this document includes the activities relating to the dispensing of a medicinal product and the information content for the capture of structured information produced in those events. These activities include any actual dispense, cancellation or other outcome that may have occurred at the time of planned or actual dispense. In other words, the dispense record also contains information that medication was expected to be dispensed but was not dispensed.

ZWS ARS ISO 21065:2017
Prosthetics and orthotics – Terms relating to the treatment and rehabilitation of persons having a lower limb amputation
Price Code: Gr 3
6 pages
Identical to ARS ISO 21065:2017

This document specifies a vocabulary for the description of the phases of treatment and rehabilitation of persons having a lower limb amputation and the treatments which are used during these phases.

ZWS ARS ISO 29783: Part 1:2008
Prosthetics and orthotics – Vocabulary
Part 1: Normal gait
Price Code: Gr 3
8 pages
Identical to ARS ISO 29783 Part 1:2008

This part of ISO 29783 establishes a vocabulary for the description of normal gait

ZWS ARS ISO 22948:2020
Carbon footprint for seafood — Product category rules (CFP–PCR) for finfish
Price Code: Gr 7
25 pages
Identical to ARS ISO 22948:2020

This document specifies requirements for calculating the carbon footprint specific to finfish product category rules (CFP–PCR). This methodology builds on the requirements of International Standards for life cycle assessment (LCA) and products' carbon footprints.
This document is applicable to the calculation and communication of finfish products' carbon footprints from fishing and/or cultivation of feed ingredients to the consumption of finfish products. It is applicable to the carbon footprints of products from both fisheries and aquaculture value chains. This document used alone does not apply to specifying a product's overall environmental or sustainability characteristics.

ZWS ARS ISO 22956:2021
Healthcare organization management — Requirements for patient- centred staffing
Price Code: Gr 5
9 pages
Identical to ARS ISO 22956:2021

This document provides requirements for patient-centred staffing in healthcare settings. It is generic and applicable to any healthcare organization.

SADC ZWS HT 106 Part 1 :2020
ZWS ISO/IEC 18013: Part 1:2018
Information Technology - Personal Identication – ISO-Compliant Driving licence
Part 1: Physical characteristics and basic data set
Price Code: Gr 8
90 pages

This document establishes guidelines for the design format and data content of an ISO-compliant driving licence (IDL) in regard to both visual human-readable features and ISO machine-readable technologies. It creates a common basis for international use and mutual recognition of the IDL without impeding individual national/community/regional motor vehicle authorities in taking care of their specific needs.

SADC ZWS HS HT 106 Part 2 :2020
ZWS ISO/IEC 18013: Part 2:2018
Part 2: Machine Readable Technologies
Price Code: Gr 8
90 pages

ISO/IEC 18013 establishes guidelines for the design format and data content of an ISO-compliant driving licence (IDL) with regard to human-readable features (ISO/IEC 18013-1), ISO machine-readable technologies (ISO/IEC 18013-2), and access control, authentication and integrity validation (ISO/IEC 18013-3). It creates a common basis for international use and mutual recognition of the IDL without impeding individual countries/states in applying their privacy rules and national/community/regional motor vehicle authorities in taking care of their specific needs.

SADC ZWS HS HT 106 Part 2:2020
ZWS ISO/IEC 18013: Part 3:2017
Part 3: Access control, authentication and integrity validation
Price Code: Gr. 8
202 pages

ISO/IEC 18013 establishes guidelines for the design format and data content of an ISO-compliant driving licence (IDL) with regard to human-readable features (ISO/IEC 18013-1), machine-readable technologies (ISO/IEC 18013-2), and access control, authentication and integrity validation (ISO/IEC 18013-3). It creates a common basis for international use and mutual recognition of the IDL without impeding individual countries/states to apply their privacy rules and national/community/regional motor vehicle authorities in taking care of their specific needs

WITHDRAWN STANDARDS

NOTE: Standards, which have been withdrawn and replaced by a later edition with the same number, are not listed here

COMESA ZWS HS 646:2005 replaced by ZWS 1118
COMESA ZWS HS ISO 4317 replaced by ZWS ISO 4317
ZWS A1 replaced by ZWS 308,ZWS 311
ZWS A2 replaced by ZWS 309, ZWS 329
ZWS A3 replaced by ZWS 310, ZWS 313
ZWS A4 replaced by ZWS 827
ZWS A5 withdrawn not replaced
ZWS A6 incorporated into ZWS 221
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ZWS A8 replaced by ZWS 319
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ZWS A13 replaced by ZWS 467
ZWS A14 withdrawn not replaced
ZWS A15 replaced by ZWS 818
ZWS A16 replaced by ZWS 342
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ZWS A20 replaced by ZWS 105
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ZWS A31 Part 5 replaced by ZWS 813
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ZWS 478:1995 replaced by ZWS ISO 7027:2019
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ZWS 496:1995 replaced by ZWS ISO 5815:2019
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ZWS 500:2021 replaced by ARS ZW HS 470:2025470
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ZWS 648 replaced by ZWS ISO 1461
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ZWS 752 replaced by ZWS 963
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ZWS 760 replaced by ARSO ZW HS 466:2017
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ZWS ISO 8009 parts 1-10 replaced by ZWS ISO 8009:2005
ZWS ISO 8401 replaced by ZWS ISO 9000
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ZWS ISO 9002 replaced by ZWS ISO 9001
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Natural and applied sciences (Vocabularies)

ZWS EN 1659:2023
In vitro diagnostic systems - culture media for microbiology – Terms and definitions

01.040.13 Environment, Health protection, Safety (Vocabulary)

ZWS ISO 4880
Burning behavior of textiles and textile products – Vocabulary

ZWS ISO Guide 99:2007
International vocabulary of metrology — Basic and general concepts and associated terms (VIM)

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Steel for reinforcement and prestressing of concrete – Vocabulary

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ZWS ISO 3864: Part 1:2011
Graphical symbols –Safety colours and safety signs:
Part 1: design principles for safety signs and safety markings

ZWS ISO 3864: Part 2:2016
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ZWS ISO 3864: Part 3:2024
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ZWS ISO 3864: Part 4: 2011
Graphical symbols – Safety colours and safety signs
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ZWS ISO 7010:2019/Amd 2:2020
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ZWS ISO 20712: Part 2:2007
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ZWS ISO 20712: Part 3:2007
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ZWS ISO 22578: Part 2:2024
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Part 2: Measurement of photopic luminance of phosphorescent components used in a natural disaster safety way guidance system

ZWS ISO 28564: Part 2:2016
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ZWS ISO 28564: Part 4:2023
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01.080.20 Graphical symbols for use on specific equipment

ZWS ISO/TS 20559:2020
Graphical symbols - Safety colours and safety signs - Guidance for the development and use of a safety signing system

ZWS ISO 20560: Part 1:2024
Safety information for the content of piping systems and tanks
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ZWS ISO 23601:2020
Safety identification — Escape and evacuation plan signs

01.120 Standardization, General rules

ZWS 100:2010
Code of practice for standard for standards

ZWS Directive: Part 2:2022
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ZWS 106: 1974
Standard export documents

ZWS 757: 2005
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ZWS ISO 15489:2016
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ZWS ISO 11620:2023
Information and documentation – Library performance indicators

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ZWS ISO 20252:2019
Market, opinion and social research, including insights and data analytics — Vocabulary and service requirements

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Codes for the representation of currencies and funds

ZWS ISO 6166:2013
Securities and related financial instruments — International securities identification numbering system (ISIN)

ZWS ISO 9362:2022
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ZWS ISO 13616: Part 1:2020
Financial services - International bank account number (IBAN)
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ZWS ISO 13616: Part 2:2020
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Digital token identifier (DTI) - Registration, assignment and structure
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ZWS ISO 24366:2021
Financial services — Financial services — Natural person identifier (NPI)

ZWS ISO/IEC 27562:2024
Information technology — Security techniques — Privacy guidelines for fintech services

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03.080.10 Industrial services

ZWS 320: 2007
Cleaning services Industry – Cleaning performance for commercial, residential and health premises.

03.080.30 Services for consumers

ZWS 904: 2008
Guidelines for the design control measured for street vended foods in Zimbabwe.

ZWS ISO 5665:2024
Consumer incident investigation — Requirements and guidance

ZWS ISO 10002:2004
Quality management - Customer satisfaction - Guidelines for complaints handling in organizations

ZWS ISO 18295: Part 1:2017
Customer contact centres
Part 1:2017: Requirements for customer contact centres

ZWS ISO 18295: Part 2:2017
Customer contact centres
Part 2:2017: Requirements for clients using the services of customer contact centres

03.080.99 Other services

ZWS ISO 20000: Part 1:2018/Amd 1:2024
Information technology — Service management
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ZWS ISO 13810:2015
Tourism services – Industrial Tourism – Service provision

ZWS ISO 14785:2014
Tourist information offices – Tourist information and reception services – Requirements

ZWS ISO 18065:2015
Tourism and related services – Tourist services for public use provided by natural protected areas authorities – requirements

ZWS ISO 21101:2014
Adventure tourism – Safety management systems – Requirements

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Adventure tourism – Information for participation

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ZWS ISO/IEC 19479:2019
Information technology for learning, education, and training - Learner mobility achievement information (LMAI)

03.100.01 Company organization and management in general

ZWS ISO/IEC GUIDE 73:2011
Risk Management – Vocabulary

ZWS ISO 8601: Part 1: 2019
Data elements and interchange formats – Information interchange – Representation of dates and times: Basic rules

ZWS ISO 20700:2017
Guidelines for management consultancy services

ZWS ISO 22300:2021
Security and resilience — vocabulary

ZWS ISO 22301:2019
Security and resilience – business continuity management systems – requirements

ZWS ISO 22313:2020
Security and resilience — Business continuity management systems — Guidance on the use of ISO 22301

ZWS ISO 22316 :2017
Security and resilience — organizational resilience — principles and attributes

ZWS ISO/TS 22317 :2021
Security and resilience - business continuity management systems - guidelines for business impact analysis

ZWS ISO/TS 22318:2021
Security and resilience — business continuity management systems -guidelines for supply chain continuity management

ZWS ISO/TS 22319:2017
Security and resilience - Community resilience — Guidelines for planning the involvement of spontaneous volunteers

ZWS ISO/TS 22320:2018
Security and resilience – Emergency management – Guide-lines for incident management

ZWS ISO/TS 22330:2018
Security and resilience – Business continuity management systems – Guidelines for people aspects of business continuity

ZWS ISO/TS 22331:2018
Business continuity management systems – Guidelines for business continuity strategy

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Risk management – Risk assessment techniques

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ZWS ISO 56007:2023
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03.100.02 Governance and ethics

ZWS ISO 20914:2019
Medical laboratories — practical guidance for the estimation of measurement uncertainty

ZWS ISO 53800:2024
Guidelines for the promotion and implementation of gender equality and women's empowerment

03.100.10 Purchasing. Procurement. Logistics

ZWS ISO 55000:2024
Asset management – Overview, principles and terminology

ZWS ISO 55001:2024
Asset management – Management systems – Requirements

ZWS ISO 55002: 2018
Asset management — Management systems — Guidelines for the application of ISO 55001

ZWS ISO/TS 55010:2024
Asset management — Guidance on the alignment of financial and non-financial functions in asset management

ZWS ISO 55011:2024
Asset management — Guidance for the development of public policy to enable asset management

ZWS ISO 55013:2024
Asset management — Guidance on the management of data assets

03.100.30 Management of human resources

ZWS ISO 10018:2012
Quality Management – Guidelines on people involvement and competence

ZWS ISO/IEC 19788: Part 1:2024
Information technology for learning, education and training – Metadata for learning resources
Part 1: Framework

ZWS ISO/IEC 19788: Part 2:2011/Amd 1:2016
Information technology - Learning, education and training - Metadata for learning resources
Part 2: Dublin Core elements

ZWS ISO/IEC 19788: Part 3:2011
Information technology — Learning, education and training — Metadata for learning resources
Part 3: Basic application profile

ZWS ISO/IEC 19788: Part 4:2014
Information technology - Learning, education, and training - Metadata for learning resources
Part 4:2014: Technical elements

ZWS ISO/IEC 19788: Part 5:2012
Information technology - Learning, education, and training - Metadata for learning resources
Part 5:2014: Educational elements

ZWS ISO TS 24178:2021
Human resource management – Organizational culture metrics cluster

ZWS ISO TS 24179:2020
Human resource management – Occupational health and safety metrics

ZWS ISO TR 30406:2017
Human Resources Management-Sustainable Employability Management for Organizations

ZWS ISO 30407:2017
Human Resources Management-Cost per Hire

ZWS ISO 30408:2016
Human Resource Management- Guidelines on Human Resources

ZWS ISO 30409:2016
Human Resource Management- Workforce Planning

ZWS ISO 30410:2018
Human Resources Management-Impact of Hire Metric

ZWS ISO 30400:2016
Human Resource Management-Vocabulary

ZWS ISO 30414:2018
Human resource management – Guidelines for internal and external human capital reporting

ZWS ISO TS 30415:2021
Human Resources Management – Diversity and Inclusion

ZWS ISO TS 30423:2021
Human resource management – Compliance and ethics metrics cluster

ZWS ISO TS 30425:2021
Human Resource Management – Workforce availability metrics cluster

ZWS ISO TS 30427:2021
Human Resources Management – Costs metrics cluster

ZWS ISO TS 30428:2021
Human Resources Management – skills and capabilities metrics cluster

ZWS ISO TS 30430:2021
Human Resources Management – recruitment metrics cluster

ZWS ISO TS 30431:2021
Human Resources Management – leadership metrics cluster

ZWS ISO TS 30432:2021
Human Resources Management – workforce productivity metrics cluster

ZWS ISO TS 30433:2021
Human Resources Management – Succession planning metrics cluster

ZWS ISO 30435:2023
Human resource management — Workforce data quality

ZWS ISO TS 30437:2023
Human resource management — Learning and development metrics

ZWS ISO 10667:2020: Part 1
Assessment service delivery – procedures and methods to assess people in work and organizational settings: Requirements for the client

ZWS ISO 10667:2020: Part 2
Assessment service delivery – procedures and methods to assess people in work and organizational settings: Requirements for service providers

03.100.70 Management Systems

ZWS ISO 27021:2017
Information technology – Security techniques - competence requirements for information security management systems professionals

ZWS ISO 28001:2007
Security management systems for the supply chain — Best practices for implementing supply chain security, assessments and plans — Requirements and guidance

ZWS ISO TS 29001:2020
Petroleum, petrochemical and natural gas industries - Sector-specific quality management systems - Requirements for product and service supply organizations

ZWS ISO 42001:2023
Information technology — Artificial intelligence — Man-agement system
ZWS ISO/IEC 42006:2025
Information technology - Artificial intelligence - Requirements for bodies providing audit and certification of artificial intelligence management systems

03.120 Quality
03.120.10 Quality Management and Quality Assurance

ZWS ISO 9000:2015
Quality management systems - Fundamentals and vocabulary

ZWS ISO 9001:2015/ AMD 1:2024
Quality management systems – Requirements

ZWS ISO 9002:2016
Quality management systems – Guidelines for the Application of ISO 9001:2015

ZWS 9004:2009
Managing for the sustained success of an organization – A quality management approach

ZWS ISO 10001:2018
Quality management – Customer satisfaction – Guidelines for codes of conduct for organizations

ZWS 1SO 10002:2018
Quality Management –Customer satisfaction –Guidelines for complaints handling for organizations.

ZWS ISO 10003:2018
Quality management – Customer satisfaction – Guidelines for dispute resolution external to organizations.

ZWS ISO 10004:2018
Quality management – Customer satisfaction – Guidelines for monitoring and measuring

ZWS ISO10005:2018.
Quality management - Guidelines for quality plans

ZWS ISO 10006:2017
Quality management systems – Guidelines for quality management in projects

ZWS ISO 10007:2017
Quality management systems – Guidelines for configuration management

ZWS ISO 10008:2022
Quality management – Customer satisfaction – Guidance for business-to-consumer electronic commerce transactions

ZWS ISO 10010:2022
Quality management - Guidance to understand, evaluate and improve organizational quality culture

ZWS ISO 10012:2003
Measurement management systems - Requirements for measurement processes and measuring equipment

ZWS ISO 10013:2021
Quality management systems – Guidance documented information

ZWS ISO 10014:2009
Quality management – Managing an organization for quality results – Guidance for realizing financial and economic benefits

ZWS ISO/TR 10015:2019
Quality management – Guidance for competence management and people development

ZWS ISO 10017:2021
Quality management - Guidance on statistical techniques for ISO 9001:2015

ZWS ISO 10018:2020
Quality Management – Guidance on people engagements

ZWS ISO TS 10020:2022
Quality management Systems - Organizational change man-agement - Processes

ZWS ISO 13485:2004
Medical devices - Quality management systems - Requirements for regulatory purposes

ZWS ISO 14004:2016
Environmental management systems – General guidelines on implementation

ZWS ISO 15161:2002
Guidelines on the application of ISO 9001:2000 for the food and drink industry

ZWS ISO 15189:2022
Medical laboratories - Requirements for quality and competence

ZWS ISO 16949: 2009
Quality management systems - Particular requirements for the application of ISO 9001: 2000 for automotive production and relevant service part organizations

ZWS ISO 18091:2014
Quality management systems – Guidelines for the application of ISO 9001:2008 in local government

ZWS ISO 19011:2012
Guidelines for quality and/or environmental management system auditing

ZWS ISO 21795: Part 1:2021
Mine closure and reclamation planning.
Part 1: requirements

ZWS ISO 21795: Part 2:2021
Mine closure and reclamation planning.
Part 2: guidance

ZWS ISO 22870:2006
Point –of-care testing (POCT) – Requirements for quality and competence

03.120.20 Product and company certification. Conformity assessment

ARSO ZW HS 1357:2022
Vehicle testing station evaluation

ZWS ISO/IEC Guide 23:2005
Method of indicating conformity with standards for third party certification systems

ZWS ISO/IEC Guide 27:2005
Guidelines for corrective action to be taken by a certification body in the event of misuse of its mark of conformity

ZWS ISO/IEC Guide 28:2005
Conformity assessment - Guidance on a third - party certification system for products

ZWS ISO/IEC Guide 43:2003
Proficiency testing by inter laboratory comparison

ZWS ISO /IEC Guide 53:2005
Conformity assessment - Guidance on the use of an organization's quality management system in product certification

ZWS ISO /IEC Guide 60:2005
Conformity assessment - Code of good practice

ZWS ISO /IEC Guide 64:2009
Guide for addressing environmental issues in product standards

ZWS ISO /IEC Guide 65:2005
General requirements for bodies operating product certification systems

ZWS ISO/IEC Guide 67:2005
Conformity assessment - Fundamentals of products certification

ZWS ISO /IEC guide 68:2005
Environmental management life cycle - Examples of application of ISO 14042

ZWS ISO 13528:2022
Statistical methods for use in proficiency testing by interla-boratory comparison

ZWS ISO /IEC 17000:2020
Conformity assessment – Vocabulary and general principles

ZWS ISO / PAS 17001:2007
Conformity assessment – Impartiality – principles and requirements

ZWS ISO /PAS 17004:2007
Conformity assessment – disclosure of information – principles and requirements

ZWS ISO /PAS 17002:2005
Conformity assessment - Confidentiality - Principles and requirements

ZWS ISO /PAS 17003 – 2005
Conformity assessment – Complaints and appeals, principles and requirements

ZWS ISO/ 17011:2017
General requirements for accreditation bodies – Accreditation conformity assessment results

ZWS ISO/IEC 17020:2026
Conformity assessment — Requirements for bodies performing inspection

ZWS ISO/ IEC 17021:2011
Conformity assessment – requirements for bodies providing audit and certification of management systems

ZWS ISO/IEC TS 17021: Part 13:2021
Conformity assessment – Requirements for bodies providing audit and certification of management systems:
Part 13: Competence requirements for auditing and certifi-cation of compliance management systems

ZWS ISO/IEC TS 17022:2012
Conformity assessment – Requirements and recommendations for content of a third-party audit report on management systems

ZWS ISO/IEC 17024:2026
Conformity assessment — General requirements for bodies operating certification of persons

ZWS ISO IEC 17029:2019
Conformity assessment — General principles and require-ments for validation and verification bodies

ZWS ISO /IEC 17030:2005
General requirements for third party marks of conformity 27001

ZWS ISO /IEC 17040:2005
Conformity assessment - General requirements for peer assessment of conformity assessment bodies

ZWS ISO/IEC 17043:2023
Conformity assessment – General requirements for the com-petency of proficiency testing providers

ZWS ISO/ 17050:2005
Supplier declaration of conformity

ZWS ISO/IEC 17065:2012
Conformity assessment – Requirements for bodies certifying products, processes and services

ZWS ISO/IEC 17067:2013
Conformity assessment – Fundamentals of product certification and guidelines for product certification schemes

03.140 Patents and Intellectual property

ZWS ISO 10668:2010
Brand valuation — Requirements for monetary brand valuation

03.180 Education

ZWS ISO 21001:2025
Educational organisations – management systems for educational organisations – requirements with guidance for use

ZWS ISO 29991:2014
Language learning services outside formal education -requirements

ZWS ISO 29992:2018
Assessment of outcomes of learning services -Guidelines

ZWS ISO 29993:2017
Learning services outside formal education -requirements

ZWS ISO 29994:2021
Education and learning services – requirements for distance learning

ZWS ISO 29996:2024
Education and learning services — Distance and digital learning services (DDLS) — Case studies

ZWS ISO 29997:2024
Internships – Quality guidelines for host organizations

03.330.20

ZWS ISO 39001:2012
Road traffic safety (RTS) management systems – requirements with guidance for use

07 Mathematics, Natural sciences

07.100.30 Food microbiology

ZWS ISO 4831:2007
Microbiology of food and animal feeding stuffs – horizontal method for the detection and enumeration of coliforms – most probable number technique

ZWS ISO 4833: Part 1:2013/Amd 1:2022
Microbiology of the food chain — Horizontal method for the enumeration of microorganisms
Part 1:2013 Colony-count techniques at 30 ˚C

ZWS ISO 4833: Part 2:2013/Amd 1:2022
Microbiology of the food chain — Horizontal method for the enumeration of microorganisms
Part 2:2013 Colony-count at 30˚C by the surface plating technique

ZWS ISO 4833: Part 2:2013/Cor 1:2014
Microbiology of the food chain — Horizontal method for the enumeration of microorganisms
Part 2: Colony count at 30˚C by the surface plating technique

ZWS ISO 6579: Part 1:2017/Amd.1:2020
Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella
Part 1: Detection of Salmonella spp.

ZWS ISO 6579: Part 4:2025
Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella
Part 4: Identification of monophasic Salmonella Typhimuri-um (1,4,[5],12: i:-) by polymerase chain reaction (PCR)

ZWS ISO 6887: Part 1:2017/Amd 1:2024
Microbiology of the food chain — Preparation of test samples, initial suspension and decimal dilutions for microbiological examination
Part 1: General rules for the preparation of the initial suspension and decimal dilutions

ZWS ISO 6887: Part 4:2017
Microbiology of the food chain — Preparation of test sam-ples, initial suspension and decimal dilutions for microbiolog-ical examination
Part 4: Specific rules for the preparation of miscellaneous products

ZWS ISO 6888: Part 1:2021/Amd 1:2023
Microbiology of the food chain — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species)
Part 1: Method using Baird-Parker agar medium

ZWS ISO 7218:2024
Microbiology of the food chain — General requirements and guidance for microbiological examinations

ZWS ISO 7251:2005
Microbiology – General guidance for enumeration of presumptive Escherichia coli – Most probable number technique

ZWS ISO 7954:2005
Microbiology – General guidance for enumeration of yeast and moulds – colony count technique at 30^0C

ZWS ISO 11133:2014
Microbiology of food, animal feed and water – Preparation, production, storage and performance testing of culture media

ZWS ISO 16649: Part 1:2018
Microbiology of the food chain - Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli
Part 1: Colony-count technique at 44 °C using membranes and 5-bromo-4-chloro-3- indolyl beta-D-glucuronide

ZWS ISO 16649: Part 3:2015
Microbiology of the food chain — Enumeration of β-glucuronidase positive Escherichia coli
Part 3: Detection and most probable number technique using 5-bromo-4-chloro-3-indolyl-β-D-glucuronide

ZWS ISO 21527: Part 1:2008
Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds
Part 1: Colony count technique in products with water activity greater than 0,95

ZWS ISO 21527: Part 1:2008
Microbiology of food and animal feeding stuffs — Hori-zontal method for the enumeration of yeasts and moulds
Part 2: Colony count technique in products with water activity less than or equal to 0,95

ZWS ISO 21528: Part 2:2017
Microbiology of the food chain- Horizontal method for the detection and enumeration of enterobacteriaceae
Part 2: Colony-count technique

07.100.40 Cosmetics microbiology

ZWS ISO 18415:2017
Cosmetics — Microbiology — Detection of specified and non-specified microorganisms

07.080 Biology. Botany. Zoology Including biotechnology

ZWS ISO 20387:2018
Biotechnology - Biobanking - General requirements for biobanking

11 Health care technology 11.020.01

ZWS 992:2019
HIV and wellness management systems

ZWS ISO 5258:2022
Healthcare organization management — Pandemic response (respiratory) — Drive-through screening station

ZWS ISO 7101:2023
Healthcare organization management — Management systems for quality in healthcare organizations — Requirements

ZWS ISO 22886:2020
Healthcare organization management – Vocabulary

ZWS ARS ISO 17090: Part 1:2021
Health informatics – Public key infrastructure
Part 1:2021: Overview of digital certificate services

ZWS ARS ISO 17090: Part 2:2008
Health informatics – Public key infrastructure
Part 2:2008: Certificate profile

ZWS ARS ISO 17090: Part 3:2021
Health informatics – Public key infrastructure
Part 3:2021: Policy management of certification authority

ZWS ARS ISO 22956:2021
Healthcare organization management — Requirements for patient- centred staffing

11.040 Medical equipment

ZWS Z6:1964
Medical gas cylinders and anaesthetic apparatus

ZWS T1:1967
Rubber closures for injectable products

ZWS ISO 13485:2004
Medical devices - Quality management systems - Requirements for regulatory purposes

ZWS ISO 15174:2012
Milk and milk products – Microbial coagulants – Determination of total milk-clotting activity

ZWS ISO 15198:2004
Clinical laboratory medicine - In - vitro diagnostic medical devices – Validation of user quality control procedures by the manufacturer

ZWS ISO 17593:2009
Clinical laboratory testing and in – vitro medical devices – Requirements for in vitro monitoring systems for self- testing of oral anticoagulant therapy

11.040.10 Anaesthetic, respiratory and reanimation equipment

ZWS ISO 407:2023
Small medical gas cylinders — Pin-index yoke-type valve connections

ZWS ISO 20072:2011
Aerosole drug device design verification – Requirements and test methods

11.040.20 Transfusion, infusion and injection equipment

ZWS ISO 7864:2004
Sterile hypodermic needles for single use

ZWS ISO 8537:2016
Sterile single-use syringes with or without needle, for insul set

ZWS ISO 9626:2016
Stainless steel needle tubing for the manufacture of medical devices

ZWS ISO 10555:2005
Sterile, single- use intravascular catheters

ZWS ISO 11070:2005
Sterile, single-use intravascular catheter introducers

ZWS ISO 11608:2012
Needle based injection systems for medical use – Requirements and test methods

ZWS ISO 14972:2005
Sterile obturators for single-use with over-needle peripheral intravascular catheters

ZWS ISO 6009:2016
Hypodermic needles for single use – color coding for identification

ZWS ISO 21649: 2009
Needle – Free injections for medical use – Requirements and test methods

11.040.25 Syringes, needles and catheters

ZWS ISO 7886:2011
Sterile hypodermic syringes for single use

ZWS ISO 11608: 2012
Needle-based injection systems for medical use – Requirements and test methods

11.040.40 Implants for surgery, prosthetics and orthotics including pacemakers

ZWS ARS ISO 8548: Part 1:1989
Prosthetics and orthotics – Limb deficiencies
Part 1:1989: Method of describing limb deficiencies present at birth

ZWS ARS ISO 8548: Part 2:2020
Prosthetics and orthotics – Limb deficiencies
Part 2:2020: Method of describing lower limb amputation stumps

ZWS ARS ISO 8548: Part 3:1993
Prosthetics and orthotics – Limb deficiencies
Part 3:1993: Method of describing upper limb amputation stumps

ZWS ARS ISO 8548: Part 4:1998
Prosthetics and orthotics – Limb deficiencies
Part 4:1998: Description of causal conditions leading to amputation

ZWS ARS ISO 8548: Part 5:2003
Prosthetics and orthotics – Limb deficiencies
Part 5:2003: Description of the clinical condition of the person who has had an amputation

ZWS ARS ISO 8549: Part 1:2020
Prosthetics and orthotics – Vocabulary
Part 1:2020: General terms for external limb prostheses and external orthoses

ZWS ARS ISO 8549: Part 2:2023
Prosthetics and orthotics – Vocabulary
Part 2:2023: Terms relating to external limb prostheses

ZWS ARS ISO 8549: Part 4:2020
Prosthetics and orthotics – Vocabulary
Part 4:2020: Terms relating to limb amputation

ZWS ARS ISO 21065:2017
Prosthetics and orthotics – Terms relating to the treatment and rehabilitation of persons having a lower limb amputation

ZWS ARS ISO 29783: Part 1:2008
Prosthetics and orthotics – Vocabulary
Part 1: Normal gait
ZWS ISO 29783: Part 2:2015
Prosthetics and orthotics – Vocabulary
Part 2: Prosthetic gait

ZWS ISO 29783: Part 3:2016
Prosthetics and orthotics -Vocabulary
Part 3: Pathological gait (excluding prosthetic gait)

11.040.55 Diagnostic equipment

ZWS ISO 19001:2013
In vitro diagnostic medical devices – Information supplied by the manufacturer with in vitro diagnostic reagents for staining in biology

11.040.99 Other medical equipment

ZWS ISO 23907:2012
Sharps injury protection – Requirements and test methods – Sharps containers

ZWS ISO 23908:2011
Sharps injury protection – Requirements and test methods – Sharps protection features for single-use hypodermic needles, introducers for catheters and needles used for blood sampling

11.060.01 Dentistry in general

ZWS ISO 3950:2016
Dentistry - Designation system for teeth and areas of the oral cavity

ZWS ISO 16443:2014
Dentistry - Vocabulary for dental implants systems and related procedure

ZWS ISO 16059:2007
Dentistry - Required elements for codification used in data exchange

ZWS ISO 16202: Part 1:2019
Dentistry — Nomenclature of oral anomalies
Part 1: Code for the representation of oral anomalies

ZWS ISO 16498:2013
Dentistry - Minimal dental implant data set for clinical use

ZWS ISO 20888:2020
Dentistry – Vocabulary and designation system for forensic orodental data

11.060.15 Dental implants Including dentures

ZWS ISO 19429:2015
Dentistry – Designation system for dental implants

11.060.20 Dental equipment

ZWS 819:2010
Toothpaste

11.080 Sterilization and disinfection

ARS ZW HS 1702:2023
Disinfectants – Glossary of terms

ZWS 292:1993
Detergent-disinfectants (iodophors)

ZWS 298:2001
Detergent-disinfectants based on quaternary ammonium compounds

ZWS 302:2001
Quaternary ammonium compound disinfectants

ZWS 865:1966
Black and white disinfectant fluids

ZWS ISO 15883:Part 2:2023
Washer disinfectors
Part 2: Requirements and tests for washer-disinfectors employing thermal disinfection for critical and semi-critical medical devices

ZWS ISO 15883: Part 3:2006
Washer disinfectors
Part 3: Requirements and tests for washer-disinfectors employing thermal disinfection for human waste containers

ZWS ISO 15883: Part 4:2018
Washer disinfectors
Part 4: Requirements and tests for washer-disinfectors employing chemical disinfection for thermolabile endoscopes

ZWS ISO 15883: Part 5:2021
Washer disinfectors
Part 5: Performance requirements and test method criteria for demonstrating cleaning efficacy

ZWS ISO 18153:2003
In vitro diagnostic medical devices — Measurement of quantities in biological samples — Metrological traceability of values for catalytic concentration of enzymes assigned to calibrators and control materials

ZWS ISO 20184: Part 1:2018
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for frozen tissue:
Part 1: Isolated RNA

ZWS ISO 20184: Part 2:2018
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for frozen tissue:
Part 2: Isolated proteins

ZWS ISO 20186: Part 1:2019
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for venous whole blood:
Part 1: Isolated cellular RNA

ZWS ISO 20186: Part 2:2019
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for venous whole blood
Part 2: Isolated genomic DNA

ZWS ISO 20186: Part 3:2019
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for venous whole blood:
Part 3: Isolated circulating cell free DNA

11.100 Laboratory medicine

ZWS ISO 15190:2020
Medical laboratories - Requirements for safety

ZWS ISO 15195:2004
Laboratory medicine - Requirements for reference measurement laboratories

ZWS ISO 22367:2020
Medical laboratories — Application of risk management to medical laboratories

11.100.01 Laboratory medicine in general

ZWS ISO 22870:2006
Point-of-care testing (POCT) – Requirements for quality and competence

11.100.10 In vitro diagnostic test systems

ZWS EN 12322:1999
In vitro diagnostic medical devices – Culture media for microbiology – Performance criteria for cul-ture media

ZWS ISO 15193:2011
In vitro diagnostic medical devices – Measurement of quantities in samples of biological origin – Requirements for content and presentation of reference measurement procedures

ZWS ISO 15194:2011
In vitro diagnostic medical devices – Measurement of quantities in samples of biological origin – Requirements for certified reference materials and the content of supporting documentation

ZWS ISO 15197:2013
In vitro diagnostic test systems – Requirements for blood glucose monitoring systems for self-testing in managing diabetes mellitus

ZWS ISO 16256:2012
Clinical laboratory testing and in vitro diagnostic test systems – Reference method for testing the in vitro activity of antimicrobial agents against yeast fungi involvement in infectious diseases

ZWS ISO 17822:2020
In vitro diagnostic test systems — Nucleic acid amplification-based examination procedures for detection and identifica-tion of microbial pathogens — Laboratory quality practice guide

ZWS ISO 18113:Part 1:2022
In vitro diagnostic medical devices – Information supplied by the manufacturer (Labelling)
Part 1: Terms , definitions and general requirements

ZWS ISO 18113:Part 2:2022
In vitro diagnostic medical devices – Information supplied by the manufacturer (Labelling)
Part 2: In vitro diagnostic reagents for professional use

ZWS ISO 18113:Part 3:2022
In vitro diagnostic medical devices – Information supplied by the manufacturer (Labelling)
Part 3: In vitro diagnostic instruments for professional use

ZWS ISO 18113:Part 4:2022
In vitro diagnostic medical devices – Information supplied by the manufacturer (Labelling)
Part 4: In vitro diagnostic reagents for self-testing

ZWS ISO 18113:Part 5:2022
In vitro diagnostic medical devices – Information supplied by the manufacturer (Labelling)
Part 5: In vitro diagnostic instruments for self-testing

ZWS ISO 20166: Part 1:2018
Molecular in vitro diagnostic examinations — Specifications for pre-examination processes for formalin-fixed and paraffin-embedded (FFPE) tissue:
Part 1: Isolated RNA

ZWS ISO 20166: Part 2:2018
Molecular in vitro diagnostic examinations — Specifica-tions for pre-examination processes for formalin-fixed and paraffin-embedded (FFPE) tissue:
Part 2: Isolated proteins

ZWS ISO 20166: Part 3:2018
Molecular in vitro diagnostic examinations — Specifica-tions for pre-examination processes for formalin-fixed and paraffin-embedded (FFPE) tissue:
Part 3: Isolated DNA

ZWS ISO 20916: 2019
In vitro diagnostic medical devices — clinical performance studies using specimens from human subjects — good study practice

ZWS ISO 21151:2020
In vitro diagnostic medical devices – measurement of quantities in samples of biological origin – Requirements for international harmonization protocols establishing metrological traceability of values assigned to calibrators and human samples

ZWS ISO 21474: Part 1:2020
In vitro diagnostic medical devices – multiplex molecular testing for nucleic acids Part 1: Terminology and general requirements for nucleic acid quality evaluation

ZWS ISO 23640:2012
In vitro diagnostic medical devices – Evaluation of stability of in vitro diagnostic reagents

11.100.20 Biological evaluation of medical devices

ZWS ISO 20776:2009
Clinical laboratory testing an in vitro diagnostic test systems – susceptibility testing of infectious agents and evaluation of performance of antimicrobial susceptibility test devices

11.120.01 Pharmaceutics in general

ZWS 163:1975
Pharmaceuticals

ZWS 864:2004
Quality assurance of pharmaceuticals - Good manufacturing practices and inspection

11.120.10 Medicaments

ARSO ZW HS 956 Part 1:2017
African Traditional Medicine – Medicinal plant Standards
Part 1: Aloe Vera

ARS ZWS HT 956: Part 2:2024
African Traditional Medicine — Medicinal plant standards
Part 2: Ambrosia maritima

ARS ZWS HS 956: Part 3:2024
African Traditional Medicine - Medicinal plant standards:
Part 3: Urtica dioica and Urtica urens

ARS ZWS HT 956: Part 4:2024
African traditional medicine - Medicinal plant standards:
Part 4: Calotropis procera

ARS ZWS HT 956: Part 5-1:2024
African traditional medicine- Medicinal plant standards - Anacardium occidentale
Part 5-1: Seed-nut

ARS ZWS HT 956: Part 5-3:2024
African Traditional Medicine- Medicinal plant standards- Anacardium occidentale
Part: 5-3: Cashew apple

ARS ZWS HT 956: Part 6:2024
African Traditional Medicine- Medicinal plant standards
Part 6: Moringa oleifera

ARS ZWS HT 956: Part 7:2024
African Traditional Medicine - Medicinal Plant
Part 7: Prunus Africana

ARS ZWS HT 956: Part 8:2024
African Traditional Medicine - Medicinal Plant
Part 8: Vernonia Amygdalina

ARS ZWS HT 956: Part 10:2024
African traditional medicine- Medicinal plant standards
Part 10: Adansonia digitata seed oil

ARS ZWS HT 956: Part 11:2024
African traditional medicine — Medicinal plant standards
Part 11: Garcinia kola

ARS ZWS HT 956: Part 12:2024
African traditional medicine - Medicinal plant standards
Part 12: Hibiscus sabdariffa Linn variety Rahad and other species Hibiscus

ARS ZWS HT 956: Part 14:2024
African traditional medicine - Medicinal plant standards
Part 14: Scent leaf (Ocimum gratissimum)

11.180 Aids for disabled or handicapped persons

ZWS 323:1991
Wheelchairs for the disabled

11.180.10 - Aids and adaptation for moving

ZWS ISO 7176: Part 1:2014
Wheelchairs
Part 1:2014: Determination of static stability

ZWS ISO 7176: Part 2:2017
Wheelchairs
Part 2:2017: Determination of dynamic stability of electrically powered wheelchairs

ZWS ISO 7176: Part 3:2012
Wheelchairs
Part 3:2012: Determination of effectiveness of brakes

ZWS ISO 7176: Part 4:2008
Wheelchairs
Part 4:2008: Energy consumption of electric wheelchairs and scooters for determination of theoretical distance range

ZWS ISO 7176: Part 5:2008
Wheelchairs
Part 5:2008: Determination of dimensions, mass and manoevring space

ZWS ISO 7176: Part 6:2018
Wheelchairs
Part 6:2018: Determination of maximum speed of electrically powered wheelchairs

ZWS ISO 7176: Part 7:1998
Wheelchairs
Part 7:1998: Measurement of seating and wheel dimensions

ZWS ISO 7176: Part 8:2015
Wheelchairs
Part 8:2015: Requirements and test methods for static, impact and fatigue strengths

ZWS ISO 7176: Part 26:2007
Wheelchairs
Part 26:2007: Vocabulary

ZWS ISO 7176: Part 30:2018
Wheelchairs
Part 30:2018: Wheelchairs for changing occupant posture – test methods and requirements

ZWS ISO 7176: Part 32:2022
Wheelchairs:
Part 32: Test method for wheelchair castor assembly durability

ZWS ISO 10542: Part 1:2012/Amd 1:2021
Technical systems and aids for disabled or handicapped persons -Wheelchair tiedown and occupant-restraint systems:
Part 1: Requirements and test methods for all systems

ZWS ISO 10542: Part 1:2012/Cor 1:2013
Technical systems and aids for disabled or handicapped persons — Wheelchair tiedown and occupant-restraint systems
Part 1: Requirements and test methods for all systems

ZWS ISO/TR 13570: Part 2:2014
Wheelchairs:
Part 2: Typical values and recommended limits for dimensions, mass and maneuvering space as determined in ISO 7176-5

ZWS ISO 16840: Part 2:2018
Wheelchairs:
Part 2:2018: Determination of physical and mechanical characteristics of seat cushions intended to manage tissue integrity

ZWS ISO 16840: Part 3:2022
Wheelchair seating:
Part 3: Determination of static, impact, and repetitive load strengths for postural support devices

ZWS ISO 16840: Part 6:2015
Wheelchairs seating:
Part 6: Simulated use and determination of the changes in properties of seat cushions, and repetitive load strengths for postural support devices

11.200 Birth control

ZWS ISO 4074:2003
Rubber condoms

ZWS ISO 7439:2011
Copper-bearing contraceptive intrauterine devices – Requirements and tests

ZWS ISO 7857:1999
Intra-uterine devices

ZWS ISO 8009:2005
Reusable rubber and silicone contraceptive diaphragms - Requirements and test methods

ZWS ISO 16037:2003
Rubber condoms for clinical trials- measurement of physical properties

ZWS ISO 16038:2006
Rubber condoms - Guidance on the use of ISO 4074 in the quality management of natural rubber latex condoms

ZWS ISO 23409:2011
Male condoms – Requirements and test methods for condoms made from synthetic materials

ZWS ISO 25841:2011
Female condoms – Requirements and test methods

ZWS ISO 29942:2011
Prophylactic dams – Requirements and test methods

13 Environment, health protection and safety

13.020.01 Environment and environmental protection in general

ZWS IEC 82474: Part 1:2025
Material declaration
Part 1:2025 General requirements

13.020.10 Environmental management

ZWS IWA 48:2024
Framework for implementing environmental, social and governance (ESG) principles

ZWS ISO 14001:2026
Environmental management systems - Requirements with guidance for use

ZWS ISO 14004:2016
Environmental management systems - General guidelines on principles, systems and supporting techniques

ZWS ISO 14005:2019
Environmental management systems — Guidelines for a flexible approach to phased implementation

ZWS ISO 14008:2019
Monetary valuation Of Environmental Impacts And Related Environmental Aspects

ZWS ISO 14009:2020
Environmental management systems — Guidelines for incorporating material circulation in design and development

ZWS ISO 14015:2022
Environmental management — Guidelines for environmental due diligence assessment

ZWS ISO/TS 14029:2022
ARSO ISO ZWS HT 14029:2024
Environmental statements and programmes for products — Mutual recognition of Environmental Product Declarations (EPDs) and footprint communication programmes

ZWS ISO 14031:2021
Environmental management – Environmental performance evaluation – Guidelines

ZWS ISO/TR 14032:2000
Environmental management - Examples of environmental performance evaluation (EPE)

ZWS ISO 14045:2012
Environmental management eco-efficiency assessment of product systems – Principles, requirements and requirements

ZWS ISO /TR 14047:2012
Environmental management – Life cycle impact assessment – Illustrative examples on how to apply ISO 14044 to impact assessment situations

ZWS ISO 14049:2012
Environmental management-lifecycle assessment – Illustrative examples on how to apply ISO 14044 to global and scope definition and inventory analysis

ZWS ISO 14050:2020
Environmental management - Vocabulary

ZWS ISO 14051:2011
Environmental management – Material flow cost accounting – General framework

ZWS ISO 14052:2017
Environmental management – Material flow cost accounting – Guidance for practical implementation in a supply chain

ZWS ISO 14053:2021
Environmental management – material flow cost accounting – guidance for phased implementation in organisations

ZWS ISO 14072:2024
Environmental management -Life cycle assessment - Requirements and guidance for organizational life cycle assessment

ZWS ISO 14075:2024
Environmental management — Principles and framework for social life cycle assessment

ZWS ISO/TS 14076:2025
Environmental management - Environmental techno-economic assessment - Principles, requirements and guidance

ZWS ISO 18601:2013
Packaging and the environment — General requirements for the use of ISO standards in the field of packaging and the environment

ZWS ISO 19011:2018
Guidelines for auditing management systems

ZWS ISO 37001:2025
Anti-bribery management systems — Requirements with guidance for use

13.020.20 Environmental economics. Sustainability

ZWS ISO 14019: Part 1:2026
Sustainability information
Part 1: General principles and requirements for validation and verification

ZWS ISO 14019: Part 2:2026
Sustainability information
Part 2: Principles and requirements for verification processes

ZWS ISO 14019: Part 4:2026
Sustainability information
Part 4: Principles and requirements for bodies validating and verifying sustainability information

ZWS ISO 14030: Part 1:2021
Environmental performance evaluation - Green debt instruments
Part 1: Process for green bonds

ZWS ISO 14030: Part 2:2021
Environmental performance evaluation - Green debt instruments
Part 2: Process for green loans

ZWS ISO 14030: Part 3:2022
Environmental performance evaluation - Green debt instruments
Part 3: Taxonomy

ZWS ISO 14030: Part 4:2021
Environmental performance evaluation - Green debt instruments
Part 4: Verification programme requirements

ZWS ISO 17033:2019
Ethical claims and supporting information – principles and requirements

ZWS ISO 20400:2017
Sustainable Procurement

ZWS ISO 59004:2024
Circular economy - Vocabulary, principles and guidance for implementation

ZWS ISO 59010:2024
Circular economy - Guidance on the transition of business models and value networks

ZWS ISO 59020:2024
Circular economy — Measuring and assessing circularity performance

ZWS ISO 59040:2025
Circular economy - Product circularity data sheet

13.020.30 Environmental impact assessment

ZWS ISO 14050:1998
Environmental management – Vocabulary

ZWS ISO/TR 14061:1999
Information to assist forestry organizations in the use of environmental management systems standards ISO 14001 and 14004

ZWS ISO /TR 14062:2003
Environmental management – Integrate set environmental aspects into product design and development

ZWS ISO/TR 14073:2017
Environmental Management Water footprint

ZWS ISO 19011:2012
Guidelines for quality and/ or environmental management system auditing

13.020.40 Pollution and pollution control and conservation

ZWS IWA 42:2023
Net zero guidelines

ZWS ISO 14063:2020
Environmental management — Environmental communica-tion — Guidelines and examples

ZWS ISO 14064:2018
Greenhouse gases

ZWS ISO 14064: Part 5:2026
Greenhouse gases
Part 5: Guidance on activities and techniques used remotely in conducting verification and validation of greenhouse gas statements

ZWS ISO 14066:2011
Greenhouse gasses – Competence requirements for greenhouse gases validation teams and verification teams

ZWS ISO 14067:2013
Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification and communication

ZWS ISO 14068:Part 1:2023
Climate change management — Transition to net zero
Part 1: Carbon neutrality

ZWS ISO 14090:2019
Adaptation to climate change – Principles, requirements and guidelines

ZWS ISO 14091:2021
Adaptation to climate change — Guidelines on vulnerability, impacts and risk assessment

ZWS ISO 14092:2026
Climate change adaptation — Requirements and guidance on adaptation planning for local governments and communities

ZWS ISO 14093:2022
Mechanism for financing local adaptation to climate change – Performance-based climate resilience grants – Requirements and guidelines

ZWS ISO 50100:2026
Energy management systems and energy savings — Decarbonization — Requirements with guidance for use

13.020.50 Ecolabelling

ZWS ISO 14020:2022
ARSO ISO ZWS HT 14020:2024
Environmental statements and programmes for products -Principles and general requirements

ZWS ISO 14021:2016/Amd 1:2021
ARS ISO ZWS HT 14021:2024
Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling)

ZWS ISO 14026:2017
ARS ISO ZWS HT 14026:2024
Environmental labels and declarations — Principles, requirements and guidelines for communication of footprint information

ZWS ISO 14024:2018
ARSO ISO ZWS HT 14024:2024
Environmental labels and declarations - Type I environmental labelling - Principles and procedures

ZWS ISO 14025:2006
Environmental labels and declarations - Type III environmental declarations

ZWS ISO 14027:2017
Environmental labels and declarations – Development of product category rules

ZWS ISO 14006:2020
Environmental management systems- guidelines for incorporating eco design.

ZWS ISO 14002: Part 1
Environmental managemnet systems- guidelines for using ISO 14001 to address environmental aspects and conditions within an environmental topic area.

ZWS ISO 14002: Part 2: 2023
Environmental management systems — guidelines for using iso 14001 to address environmental aspects and conditions within an environmental.

ZWS ISO 14007:2019
Environmental management systems- guidelines for determining environmental costs and benefits

ZWS IEC 62430:2019
Environmentally conscious design – Principles, requirements and guidance.

13.020.60 Products life-cycles

ZWS ISO 14034:2016
Environmental management – Environmental Technology Verification (ETV)

ZWS ISO 14044:2006
Environmental management – Water Footprint –Illustrative examples on how to apply ISO 14046

ZWS ISO 14040:2006/ Amd 1:2020
Environmental management - Life cycle assessment - Principles and framework

ZWS ISO 14044:2006/ Amd 2:2020
Environmental management - Life cycle assessment - Requirements and guidelines

ZWS ISO 14045:2012
Environmental management eco-efficiency assessment of product systems – Principles, requirements and guidelines

ZWS ISO/TR 14047:2012
Environmental management life-cycle impact assessment – Illustrative examples on how to apply ISO 14044 to impact assessment situations

ZWS ISO 14048:2002
Environmental management - Life-cycle assessment - Data documentation format

ZWS ISO 14049:2012
Environmental - Life cycle assessment – Illustrative examples on how to apply ISO 14044 to goal and scope definition and inventory analysis

ZWS ISO TR 14055: Part 2:2022
Environmental management — guidelines for establishing good practices for combatting land degradation and deserti-fication
Part 2: Regional case study examples

ZWS ISO/TS 14071:2024
Life cycle assessment - Critical Review processes and review-er competencies -Additional requirements and guidelines to ISO 14044:2006

ZWS ISO/TS 14074:2022
Environmental management — life cycle assessment — prin-ciples, requirements and guidelines for normalization, weighting and interpretation

ZWS ISO 59014:2024
Environmental management and circular economy -Sustainability and traceability of the recovery of secondary materials — Principles, requirements and guidance

13.030 Waste
13.030.30 Special waste

ZWS 704:2000
Radioactive waste management

13.040 Air quality
13.040.01 Air quality in general

ZWS 977:2015
Air quality and emissions

ZWS ISO 4221:1999
Air quality – Determination of mass concentration of sulfur dioxide in ambient air - Thorin spectrophotometric method

ZWS ISO 4225:2020
Air quality - General aspects – Vocabulary

ZWS ISO 4226:1999
Air quality - General aspects - Units of measurement

ZWS ISO 6879:2000
Air quality - Performance characteristics and related concept for air quality measuring methods

ZWS ISO 7168:1999
Air quality - Exchange of data

ZWS ISO 7708:2000
Air quality - Particle size fraction definitions for health related sampling

ZWS ISO 8672:2014
Air Quality - Determination of the number concentration of airborne inorganic fibres by phase contrast optical micros-copy - Membrane filter method

ZWS ISO 8756:2000
Air quality - Handling of temperature, pressure and humidity data

13.040.20 Ambient atmospheres

ZWS ISO /TR 4219: 2000
Air quality - Determination of gaseous sulfur compounds in ambient air - Sampling equipment

ZWS ISO 4220:1999
Ambient air - Determination of gaseous acid pollution index - Titrimetric method with indicator or potentiometric end point detection

ZWS ISO /TR 4227:1999
Planning of ambient air quality monitoring

ZWS ISO/TR 6767:2000
Ambient air - Determination of the mass concentration of sulfur dioxide -Tetrachloromercurate (TCM) pararosaniline method

ZWS ISO /TR 6768:2000
Ambient air - Determination of mass concentration for the determination of the mass concentration of nitrogen dioxide present in ambient air

ZWS ISO 7996:2000
Ambient air - Determination of the mass concentration of nitrogen oxides - Chemiluminescence method

ZWS ISO 8186:2000
Ambient air - Determination of the mass concentration of carbon monoxide - Gas chromatographic method

ZWS ISO 9359:2000
Air quality stratified sampling method for assessment of ambient air quality

ZWS ISO 9835:2000
Ambient air - Determination of a black smoke index

ZWS ISO 9855:2000
Ambient air - Determination of the particulate lead content of aerosols collected on filters - Atomic absorption spectrometric method

ZWS ISO 10313:2000
Ambient air - Determination of the mass concentration of ozone – Chemilumescence method

13.040.30 - Workplace atmospheres

ZWS ISO 8518:2022
Workplace air - Determination of particulate lead and lead compounds - Flame and electrothermal atomic absorption spectrometric methods

13.040.40 Stationary source emissions

ZWS ISO 7934:2000
Stationary sources emissions - Determination of mass concentration of sulfur dioxide -Hydrogen peroxide/barium perchlorate/thorin method

ZWS ISO 7935:2024
Stationary source emissions - Determination of the mass concentration of sulfur dioxide in flue gases - Performance characteristics of automated measuring systems

ZWS ISO 9096:2000
Stationary source emissions - Determination of concentration and mass flow rate of particulate material in gas carrying ducts - Manual gravimetric method

ZWS ISO 10396:2000
Stationary source emissions - Sampling for the automated determination of gas concentrations

ZWS ISO 10397:2000
Stationary source emissions - Determination of asbestos plant emissions - Method by fibre count measurement

ZWS ISO 15259:2023
Air quality — Measurement of stationary source emissions — Requirements for measurement sections and sites and for the measurement objective, plan and report

13.040.50 Transport exhaust emissions

ZWS ISO 789:1999
Agricultural tractors - Test procedures

ZWS ISO 3173:1999
Road vehicles - Apparatus for measurement of opacity of exhaust gas form diesel engines operating under steady state conditions

ZWS ISO 3929:1999
Road vehicles - Measurement method for exhaust gas emissions during inspection or maintenance

ZWS ISO 3930:2001
Instruments for measuring vehicle exhaust emissions

ZWS ISO/TR 4011:1999
Road vehicles - Apparatus for measurement of the opacity of exhaust gas from diesel engines

ZWS ISO 6460:1999
Road vehicles - Measurement method of gaseous pollutants emitted by motorcycles equipped with a controlled ignition engine

ZWS ISO 6855:1999
Road vehicles - Measurement methods for gaseous pollutants emitted by mopeds equipped with a controlled ignition engine

ZWS ISO 6970:1999
Motorcycles and mopeds - Pollution tests - Chassis dynamometer bench

ZWS ISO/TR 9310:1999
Road vehicles - Smoke measurement of compression - Ignition (diesel) engines – Survey of short in-service tests

13.060 Water quality
13.060.10 Water of natural resources

ZWS 457:2015
Natural mineral water

ZWS 678:2013
Development, maintenance and management of ground water resources
Part 1: Glossary of Terms
Part 2: The location and siting of water boreholes
Part 3: The design, construction and drilling of boreholes
Part 4: Pumping test of water wells/boreholes
Part 5: The design, selection and performance of pumping equipment for production wells/boreholes
Part 6: The installation and commission of pumping equip-ment for production wells/boreholes
Part 7: The rehabilitation of water wells/boreholes
Part 8: The management of water wells/boreholes
Part 9: The decommissioning of water wells/boreholes

13.060.20 Drinking water

ZWS ISO 24512:2024
Activities relating to drinking water and wastewater services — Guidelines for the management of drinking water utilities and for the assessment of drinking water services

ZWS 560:1997
Water for domestic supplies

13.060.20 Drinking water

ZWS ISO 24510:2024
Activities relating to drinking water and wastewater services - Guidelines for the assessment and for the improvement of the service to users

ZWS ISO 24511:2024
Activities relating to drinking water and wastewater services — Guidelines for the management of wastewater utilities and for the assessment of wastewater services

ZWS ISO 24512:2024
Activities relating to drinking water and wastewater services — Guidelines for the management of drinking water utilities and for the assessment of drinking water services

ZWS 791:2015
Packaged drinking water other than natural mineral water

13.060.30 Sewage water

ZWS 558:1999
Waste water

ZWS 572:1998
Waste water - Determination of temperature

ZWS 573:1997
Waste water - Determination of dissolved oxygen

ZWS 574:1997
Waste water - Determination of chemical oxygen demand

ZWS 575:1997
Waste water - Determination of oxygen absorbed

ZWS 576:1997
Waste water - Determination of total suspended solids, total dissolved solids and total solids

ZWS 579:1997
Waste water - Determination of calcium and magnesium content - Titrimetric method

ZWS 581:1998
Waste water - Determination of soap, oil or grease

ZWS 582:1997
Waste water - Determination of free and saline ammonia

ZWS 583:1997
Waste water - Determination of arsenic content - Gutzeit method

ZWS 584:1997
Waste water - Determination of barium content

ZWS 585:1997
Waste water - Determination of boron content - UV spectrometric method

ZWS 586:1997
Waste water - Determination of cadmium content - Dithizone method

ZWS 587:1997
Waste water - Determination of chlorides content

ZWS 589:1997
Waste water - Determination of total chromium content (as Cr)

ZWS 590:1997
Waste water - Determination of copper content - UV spectrometric method after complexation

ZWS 591:1997
Waste water - Determination of cyanides content

ZWS 593:1997
Waste water - Determination of non-ionic surfactants using Dragendorff reagent

ZWS 594:1997
Waste water - Determination of fluoride content

ZWS 595:1997
Waste water - Determination of lead content - UV spectrometric method using dithizone

ZWS 597:1997
Waste water - Determination of mercury content

ZWS 598:1997
Waste water - Determination of nickel content - UV spectrometric method after complexation with dimethylgyoxime

ZWS 599:1997
Waste water - Determination of total nitrogen content - Kjeldahl distillation using selenium catalyst

ZWS 600:1997
Waste water - Determination of phenolic compounds content (as phenol) – UV Spectrometric analysis

ZWS 601:1997
Waste water - Determination of sulfides content - Titrimetric method

ZWS 602:1997
Waste water - Determination of zinc content - UV spectrometric method

ZWS 603:1997
Waste water - Determination of total phosphates content (as P)

ZWS 627:1997
Waste water - Determination of sodium content - Flame photometric method

ZWS 699:1997
Waste water - Determination of residual organophosphorus pesticides - Gas chromatographic method

13.060.50 Examination of water for chemical substances

ZWS 479:1995
Water quality - Determination of chloride - Silver nitrate titration with chromate indicator (MOHR's method)

ZWS 480:1995
Water quality - Determination of sulfate - Gravimetric method using barium chloride

ZWS 481: 995
Water quality - Determination of nitrate - Spectrometric method using sulfosalicyclic acid

ZWS 482:1995
Water quality - Determination of nitrite - Molecular absorption spectrometric method

ZWS 483:1995
Water quality - Determination of ammonium - Distillation and titration method

ZWS 484:1995
Water quality - Determination of calcium content – EDTA - titrimetric method

ZWS 485:1995
Water quality - Determination of the sum of calcium and magnesium - EDTA titrimetric method

ZWS 486:1995
Water quality - Determination of iron - Spectrometric method using 1, 10-phenanthroline

ZWS 487:1995
Water quality - Determination of manganese - Formaldoxime spectrometric method

ZWS 488:1995
Water quality - Determination of cobalt, nickel, copper zinc, cadmium and lead - Flame atomic absorption spectrometric methods

ZWS 489:1996
Water quality - Determination of phosphorus - Ammonium molybdate spectrometric method

ZWS 490:1995
Water quality - Determination of fluoride - Electrochemical probe method for potable and lightly polluted water

ZWS 491:1996
Water quality - Guidelines for the determination of total organic carbon (TOC)

ZWS 492:1995
Water quality - Determination of total arsenic - Silver diethyldithiocarbamate spectrophotometric method

ZWS 493:1996
Water quality - Determination of cyanide as cyanogen chloride

ZWS 578:1997
Water quality - Determination of sulfate content - Turbidimetric method

ZWS 580:1997
Water quality - Determination of sodium and potassium - Flame emission spectrometry

ZWS 588:1998
Water quality - Determination of residual chlorine

ZWS 592:1997
Water quality - Determination of anionic surfactants by measurement of methylene blue index (MBAS)

ZWS 593:1997
Water quality - Determination of non-ionic surfactants using Dragendorff reagent

ZWS 596:1997
Water quality - Determination of manganese content - Persulfate colorimetric method

ZWS 602:1997
Water quality - Determination of zinc content - UV spectrometric method

ZWS 604:1997
Water quality - Determination of total chromium (VI)

ZWS 605:1997
Water quality - Determination of selenium - Atomic absorption spectrometric method (hydride technique)

ZWS 606: 1997
Water quality - Determination of alkalinity - Titrimetric method

ZWS 626:1997
Water quality - determination of iron, manganese, potassium and sodium content – Direct air-acetylene flame method

ZWS 628:1997
Water quality - Determination of potassium content - Flame photometric method

ZWS 642:1997
Water quality - Determination of calcium content - Direct flame atomic absorption

ZWS 643:1998
Water quality - Determination of electrical conductivity

ZWS 681:2001
Water quality - Determination of atrazine and other nitrogen and phosphorus containing pesticides in water by gas chromatography with nitrogen-phosphorus detector

ZWS 682:1999
Water quality - Determination of organochlorine pesticides - Liquid - liquid extraction gas chromatographic method

ZWS 683:2000
Water quality - Determination of N-Methylcarbamoyloximes and N-Methylcarbomates - Direct aqueous injection HPLC with post column derivatization

ZWS 711:2000
Water quality - Determination of Chlorinated phenoxy acids and other acidic herbicides by gas chromatography

ZWS 722:1998
Water quality - Determination of sodium by atomic absorption spectrometry

ZWS 723:1998
Water quality - Determination of phenol index - 4 aminoantipyrine spectrometric methods after distillation

ZWS ISO 5815: Part 1:2019
Water quality — Determination of biochemical oxygen de-mand after n days (BOD_n)
Part 1:2019: Dilution and seeding method with allylthiourea addition

ZWS ISO 5815.2:2003
Water quality – Determination of biochemical oxygen demand after n days (BODn)
Part 2: Method for undiluted samples

ZWS ISO 8199:2018
Water quality — General requirements and guidance for microbiological examinations by culture

ZWS ISO 9174: 1998
Water quality -Determination of chromium - Atomic absorp-tion spectrometric methods

ZWS ISO 10523: 2008
Water quality — Determination of pH

ZWS ISO 12846:2012
Water quality — Determination of mercury — Method using atomic absorption spectrometry (AAS) with and without enrichment

ZWS ISO 15705: 2002
Water quality — Determination of the chemical oxygen demand index (ST-COD) – Small-scale sealed-tube method

13.060.60 Examination of physical properties of water

ZWS 641:1997
Water quality - Determination of total hardness of water ethylene diamine tetra-acetic (EDTA) method

ZWS ISO 6222:1999
Water quality — Enumeration of culturable micro-organisms — Colony count by inoculation in a nutrient agar culture medium

ZWS ISO 7027: Part 1: 2016
Water quality — Determination of turbidity
Part 1: Quantitative methods

ZWS ISO 7027: Part 2:2019
Water quality — Determination of turbidity
Part 2: 2019: Semi-quantitative methods for the assessment of transparency of waters

ZWS ISO 7887:2011
Water quality — Examination and determination of colour

13.060.70 Examination of biological properties of water

ZWS 577:1997
Water quality - Determination of total dissolved solids - Conductivity methods

ZWS 629:1997
Water quality - Detection of and enumeration of coliform organisms thermos tolerant coliform organisms and presumptive Escherichia coli

ZWS 880:2010
Water quality – Detection and enumeration of vibro cholerae

13.100 Occupational safety

SADC ZW HT 109:2023
Quality and Performance Standard for Lighting Products

SADC ZW HT 110:2024
Minimum Energy Performance Standards for Air Conditioners

SADC ZW HT 111:2024
Minimum Energy Performance Standards for Refrigerating Appliances

ZWS 645:2002
Safety on construction sites

ZWS ISO 8086:2005
Dairy plant - Hygiene conditions

ZWS ISO 37301:2021/ AMD 1:2024
Compliance management systems — Requirements with guidance for use

ZWS ISO 45001:2018/ AMD 1:2024
Occupational health and safety management systems – requirements with guidance for use

ZWS ISO 45002:2023
Occupational health and safety management systems – General guidelines for the implementation of ISO 45001:2018

ZWS ISO 45003:2021
Occupational health and safety management – Psychological health and safety at work – Guidelines for managing psychosocial risks

ZWS ISO 45004:2024
Occupational health and safety management — Guidelines on performance evaluation

ZWS ISO PAS 45005:2020
Occupational health and safety management – General guidelines for safe working during the COVID 19 pandemic

ZWS ISO 45006:2023
Occupational health and safety management — Guidelines for organizations on preventing, controlling and managing infectious diseases

ZWS ISO PAS 45007:2026
Occupational health and safety management - Risks arising from climate change and climate change action - Guidance for organizations

13.120 Domestic safety

ZWS 101:1976
Safety factors and smoke emission of domestic stoves burning solid fuels at a rate not exceeding 5kg per hour

ZWS IEC 60335:2013
Household and similar electrical appliances – safety

ZWS IEC 62257:2013
Recommendations for small renewable energy and hybrid systems for rural electrification

ZWS IEC TS 62257 Part 9-5:2018
Recommendations for renewable energy and hybrid system for rural electrification Part 9-5: Integrated systems – Laboratory evaluation of standalone renewable energy products for rural electrification

ZWS IEC 62257 Part 9-8:2020
Integrated systems – Requirements for standalone renewable energy products with power rating less than or equal to 350W.

13.200 Accident and disaster control

ZWS IEC 60479: Part 4:2020
Effects of current on human beings and livestock
Part 4: effects of lightning strokes

13.220.10 Fire fighting

ZWS 176:2000
Fire doors

ZWS 225:2018
Portable fire extinguishers

ZWS 251:1980
Code of practice for fire extinguishing installations and equipment on premises – Sprinkler systems

ZWS 813:1974
Portable fire extinguishers - Hand operated fire extinguishers for aircraft and other purposes

ZWS 829:1973
Rubber reel hose for fire fighting purposes

ZWS 916:2011
Disposable portable condensed aerosol fire extinguishers

ZWS 972:2019
Selection, installation and Maintenance of First-Aid Fire Extinguishers

ZWS 1006:2016 / IS 2189:2008
Selection, installation and maintenance of automatic fire detection, alarm system and Automatic fire extinguishing systems (IS 2189:2008 Selection, installation and maintenance of automatic fire detection and alarm system code of practice, MOD)

13.220.40 Ignitability and burning behavior of materials and products

ZWS ISO 6940:2011
Textile fabrics – Burning behavior – Determination of ease of ignition of vertically oriented specimens

ZWS ISO 6941:2011
Textile fabrics – Burning behavior – Measurement of flame spread properties of vertically oriented specimens

13.260 Protection against electric shock. Live working

COMESA ZWS HS IEC 61140:2013
Protection against electric shock – Common aspects for installation and equipment

13.280 Radiation protection

ZWS ISO 361:361
Basic Ionizing radiation symbol

ZWS 701:2000
Radiological protection in dentistry

ZWS 702:2000
The use of radioactive materials in medical practice

ZWS 703:2000
Radiation protection in veterinary radiology

ZWS 705:2000
The safe use of x-rays in medical diagnosis

13.030 Waste
13.030.30 Special waste

ZWS 704:2000
Radioactive waste management

13.300 Protection against dangerous goods

ZWS 341:1972
The storage, transport and use of small quantities of flammable liquids

13.310 Protection against crime

ZWS 468:1995
Burglar resisting safes

ZWS 535:2021
Manned security services

ZWS 1009:2016
Vehicle security – whole of vehicle marking – Datadot systems.

ZWS 1057:2022
Manned security services – cash and valuables in transit services (collection and delivery

13.320 Alarm and warning systems

ZWS 271:1993
Intruder alarm systems in buildings

13.340 Protective equipment
13.340.10 Protective clothing

ZWS 125:1974
Protective apparel for use against pesticides

ZWS 143:1975
Life-jackets

ZWS 231:2002
Boiler suits

ZWS 339:1991
Industrial leather hand protectors and leather protective clothing

ZWS ISO 20471:2013/ Amd 1:2016
High visibility clothing – test methods and requirements

13.340.20 Head protective equipment

ZWS 239:1998
Protective helmets for equestrian activities

ZWS 303:1993
Safety helmets for industrial use and for firemen

ZWS 395:1993
Hearing protectors - Ear-plugs

ZWS 442:1993
Hearing protectors –-Ear-muffs

ZWS 564:1998
Protective helmets for pedal cyclists

ZWS 700:1998
Protective helmets for motor cyclists

13.340.30 Respiratory protective devices

ZWS 1058:2020
General washable/reusable barrier masks.

ZWS EN 14683:2019
Medical face masks- requirements and testing methods

ZWS 608:1998
Respiratory protective devices for self-rescue - Self-contained closed circuit breathing apparatus - Chemical oxygen (KO2) escape apparatus - Requirements, testing and marking

ZWS 653:2000
Respiratory protective devices - Definitions

ZWS 654:1998
Respiratory protective devices - Classification

ZWS 655:1998
Respiratory protective devices - Nomenclature of components

ZWS 656:1998
Respiratory protective devices - List of terms

ZWS 657:1998
Respiratory protective devices - Full face masks for special use

ZWS 659:1998
Respiratory protective devices - Compressed air line breathing apparatus for use with a full face mask, half mask or a mouthpiece assembly - Requirements, testing and marking

ZWS 660:1998
Respiratory protective devices - Gas filters and combined filters

ZWS 661:1998
Respiratory protective devices - Particle filters - Requirements, testing and marking

ZWS 662:1998
Respiratory protective devices - Gas cylinder valves - Thread connection for insert connector

ZWS 663:1998
Respiratory protective devices - Powered particle filtering devices incorporating helmets or hoods

ZWS 664:1998
Respiratory protective devices - Power assisted particle filtering devices incorporating full face mask, half masks or quarter masks - Requirements, testing and marking

ZWS 665 – 1998
Respiratory protective devices - Threads for face pieces - Thread Connection M 45 x 3

ZWS 666:1998
Respiratory protective devices - Powered fresh air hose breathing apparatus incorporating a hood - Requirements, testing and marking

ZWS 667:1998
Respiratory protective devices - Compressed air line breathing apparatus incorporating a hood – Requirements, testing and marking

ZWS 668:1998
Respiratory protective devices - Compressed air line or powered fresh air hose breathing apparatus incorporating a hood for use in abrasive blasting operations - Requirements, testing and marking

ZWS 669:2000
Respiratory protective devices - AX gas filters and combined filters for use against low boiling organic compounds - Requirements, testing and marking

ZWS 670:1998
Respiratory protective devices - SX gas filters and combined filters for use against specific named compounds - Requirements, testing and marking

ZWS 672: 1998
Respiratory protective devices for escape - Self-contained open-circuit compressed air breathing apparatus with full face mask or mouthpiece assembly – Requirements, testing and testing

13.340.40 Protective gloves

ZWS Z17:1971
Industrial gloves

13.340.50 Protective footwear

ZWS Z4:1961
Miners boots (Derby type with premoulded stuck-on sole and heel)

ZWS 280:1985
Lined polyvinyl chloride boots

ZWS 281:1985
Lined rubber gumboots

ZWS ISO 20344:2021
Personal protective equipment — Test methods for footwear

ZWS ISO 20345:2021/Amd 1:2024
Personal protective equipment - Safety footwear

ZWS ISO 20347:2021/Amd 1:2024
Personal protective equipment — Occupational footwear

13.340.99 Other protective equipment

SADC ZWS HS 180:2008
Industrial restraint belts

17 Metrology and measurement physical phenomena

17.060 Measurement of volume, mass, density and viscosity

ZWS 432:1993
Relative density of liquids

ZWS ISO 1042:1998
Laboratory glassware – one-mark volumetric flasks

17.100 Measurement of force, weight and pressure

SADC ZWS HS 630:2006
Metrological and technical requirements of non-automatic, non-self or semi self-indicating, ungraduated counter scales subject to legal metrology control

SADC ZWS HS 715:2006
Metrological and technical requirements for non-automatic, undenominated beam scales and balances subject to legal metrology control

17.140.01 Acoustic measurements and noise abatement in general

ZWS ISO 3740:2000
Acoustic – Determination of sound power levels of noise sources – Guidelines for the use of basic standards

ZWS ISO 3747:2010
Acoustic – Determination of sound power and sound energy levels of noise sources using sound pressure – Engineering/survey methods for use insitu in a reverberant environment

17.160 - Vibrations, shock and vibration measurements

ZWS 1065:2024
Noise and Vibration
ZWS ISO 10816: Part 7:2009
Mechanical vibration - Evaluation of machine vibration by measurements on non-rotating parts:
Part 7: Rotodynamic pumps for industrial applications, including measurements on rotating shafts

ZWS ISO 13373: Part 1:2002
Condition monitoring and diagnostics of Machines- Vibration condition monitoring:
Part 1: General procedures

ZWS ISO 13373: Part 2:2016
Condition monitoring and diagnostics of machines — Vibration condition monitoring
Part 2: Processing, analysis and presentation of vibration data

ZWS ISO 17359:2018
Condition monitoring and diagnostics of machines - General guidelines

ZWS ISO 18434: Part 1:2008
Condition monitoring and diagnostics of machines — Thermography
Part 1: General procedures

ZWS ISO 18434: Part 2:2019
Condition monitoring and diagnostics of machine systems - Thermography
Part 2: Image interpretation and diagnostics

ZWS ISO 18436: Part 1:2021
Condition monitoring and diagnostics of machine systems - Requirements for certification of personnel
Part 1: Sector specific requirements for certification bodies and the certification process

ZWS ISO 18436: Part 2:2014
Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel
Part 2: Vibration condition monitoring and diagnostics

ZWS ISO 18436: Part 6:2021
Condition monitoring and diagnostics of machines — Requirements for certification of personnel
Part 6: Acoustic emission

ZWS ISO 18436: Part 7:2014
Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel
Part 7: Thermography

ZWS ISO 18436: Part 8:2013
Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel
Part 8: Ultrasound

ZWS ISO 20816: Part 1:2016
Mechanical Vibration - Measurement and evaluation of machine vibration:
Part 1: General guidelines

ZWS ISO 20816: Part 2:2017
Mechanical vibration - Measurement and evaluation of machine vibration:
Part 2: Land-based gas turbines, steam turbines and generators in excess of 40 MW, with fluid-film bearings and rated speeds of 1 500 r/min, 1 800 r/min, 3 000 r/min and 3 600 r/min

ZWS ISO 20816: Part 3:2022
Mechanical vibration - Measurement and evaluation of machine vibration
Part 3: Industrial machinery with a power rating above 15 kW and operating speeds between 120 r/min and 30 000 r/min

ZWS ISO 21940: Part 11:2016
Mechanical vibration - Rotor balancing
Part 11: Procedures and tolerances for rotors with rigid behaviour, including measurements on rotating shafts

ZWS ISO 22096:2007
Condition monitoring and diagnostics of machines – Acoustic emission

19 Testing
19.060 Mechanical testing
19.100 Non-destructive testing

ZWS 671:1999
Non-destructive testing of winding equipment

ZWS 884:2003
Method of magnetic particle flaw detection

ZWS ISO 3057:1998
Non-destructive testing – Metallographic replica techniques of surface examination

ZWS ISO 3058:1998
Non-destructive testing – Aids to visual inspection – Selection of low-power magnifiers

ZWS ISO 3059:2012
Non-destructive testing – penetrant testing and magnetic particle testing – viewing conditions

ZWS ISO 3452.1:2013
Non destructive testing – penetrant testing – General principles

ZWS ISO 3452.2:2013
Non - destructive testing – penetrant testing – Testing of penetrant materials

ZWS ISO 3452.3:2013
Non- destructive testing – penetrant testing – Reference test blocks

ZWS ISO 3452.4:1998
Non- destructive testing - penetrant testing – Equipment

ZWS ISO 3452.5:2008
Non- destructive testing – penetrant testing – Penetrant testing at temperatures lower than 10ºC

ZWS ISO 3452.6:2008
Non- destructive testing – penetrant testing – Penetrant testing at temperatures higher than 50ºC

ZWS ISO 5579:2013
Non-Destructive testing – radiographic testing of metallic materials using film and X – or gamma rays – Basic Rules

ZWS ISO 9712:2013
Non- destructive testing – Qualification and certification of NDT personnel

ZWS ISO 9934.1:2016
Non- destructive testing – magnetic particle testing – General principles

ZWS ISO 9934.2:2002
Non -destructive testing – magnetic particle testing – Detection media

ZWS ISO 9934.3:2013
Non -destructive testing – magnetic particle testing – Equipment

ZWS ISO 12706:2009
Non -destructive testing – penetrant testing – Vocabulary

ZWS ISO/TR 25108:2006
Non-destructive testing – Guidelines for NDT personnel training organizations

21 Mechanical systems and components for general use
21.040 Screw threads

ZWS 882:2005
Pipe threads for tubes and fittings where pressure tight joints are made on the threads

21.060 Fasteners
21.060.10 Bolts, Screws, Studs

ZWS O10:1968
Wood screws

ZWS 116:1974
Self-tapping screws and metallic drive screws

ZWS 474:1996
Mechanical properties of fasteners – Bolts, screws and studs

21.060.50 Pins, Nails

ZWS 285:1986
Mild steel wire nails

21.220 Flexible drives and transmissions

ZWS 227:1978
Endless V-belt drives sections Y, Z, A, C and D

ZWS 228:1978
Endless wedge belt drives of SPZ, SPA, SPB and SPC sections

23 Fluid systems and components for general use
23.020 Fluid storage devices
23.020.10 Stationary containers and tanks

ZWS 783:2005
Carbon steel welded horizontal cylindrical storage tanks

23.020.30 Pressure vessels/gas cylinders

ZWS 199:1984
Non-refillable metallic containers up to 1.4 litres capacity and 85mm diameter for liquefied or compressed non-flammable gases

ZWS 215:1993
Design and manufacture of welded steel cylinders for low pressure service

ZWS 293:1986
Fusion welded steel air receivers

ZWS 529:1973
Identification colours for gas cylinders

ZWS ISO 7225:2005
Gas cylinders -Precautionary labels

ZWS ISO 10462:2013
Gas cylinders -Acetylene cylinders - Periodic inspection and maintenance

ZWS ISO 11372:2011
Gas cylinders - Acetylene cylinders -Filling conditions and filling inspection

ZWS ISO 25760:2009
Gas cylinders - Operational procedures for the safe removal of valves from gas cylinders

23.020.35 Gas cylinders

ZWS ISO 4706:2023
Gas cylinders — Refillable welded steel cylinders — Test pressure 60 bar and below

ZWS ISO 5145:2017
Gas cylinders - Cylinder valve outlets for gases and gas mixtures - Selection and dimensioning

ZWS ISO/TR 7470:2023
Gas cylinders - List of provisions

ZWS ISO 9809: Part 1:2019
Gas cylinders - Design, construction and testing of refillable seamless steel gas cylinders and tubes
Part 1: Quenched and tempered steel cylinders and tubes with tensile strength less than 1 100 MPa

ZWS ISO 9809: Part 2:2019
Gas cylinders - Design, construction and testing of refillable seamless steel gas cylinders and tubes
Part 2: Quenched and tempered steel cylinders and tubes with tensile strength greater than or equal to 1100 MPa

ZWS ISO 9809: Part 3:2019
Gas cylinders -Refillable seamless steel gas cylinders - Design, construction and testing
Part 3: Normalized steel cylinders

ZWS ISO 9809: Part 4:2021
Gas cylinders - Design, construction and testing of refillable seamless steel gas cylinders and tubes
Part 4: 2021: Stainless steel cylinders with an Rm value of less than 1 100 MPa

ZWS ISO 10156:2017
Gas cylinders -Gases and gas mixtures - Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets

ZWS ISO 10961:2019
Gas cylinders - Cylinder bundles - Design, manufacture, testing and inspection

ZWS ISO 11117:2019
Gas cylinders — Valve protection caps and guards — Design, construction and tests

ZWS ISO 11119: Part 1:2020
Gas cylinders - Design, construction and testing of refillable composite gas cylinders and tubes
Part 1: Hoop wrapped fibre reinforced composite gas cylinders and tubes up to 450L

ZWS ISO 11119: Part 2: 2020
Gas cylinders - Design, construction and testing of refillable composite gas cylinders and tubes
Part 2: Fully wrapped fibre reinforced composite gas cylinders and tubes up to 450 l with load-sharing metal liners

ZWS ISO 11119: Part 3: 2020
Gas cylinders- Design, construction and testing of refillable composite gas cylinders and tubes
Part 3: Fully wrapped fibre reinforced composite gas cylinders and tubes up to 450 l with non-load-sharing metallic or non-metallic liners or without liners

ZWS ISO 11119: Part 4:2020
Gas cylinders- Design, construction and testing of refillable composite gas cylinders and tubes
Part 3: Fully wrapped fibre reinforced composite gas cylinders and tubes up to 450 l with non-load-sharing metallic or non-metallic liners or without liners

ZWS ISO 11363: Part 1:2018
Gas cylinders - 17E and 25E taper threads for connection of valves to gas cylinders
Part 1: Specifications

ZWS ISO 11363: Part 1:2018/Amd 1:2023
Gas cylinders — 17E and 25E taper threads for connection of valves to gas cylinders
Part 1:2018: Specifications

ZWS ISO 11363: Part 2:2017
Gas cylinders - 17E and 25E taper threads for connection of valves to gas cylinders
Part 2: Inspection gauges

ZWS ISO 11513:2019
Gas cylinders - Refillable welded steel cylinders containing materials for sub-atmospheric gas packaging (excluding acetylene) - Design, construction, testing, use and periodic inspection

ZWS ISO 11515:2022
Gas cylinders - Refillable composite reinforced tubes of water capacity between 450 l and 3000 l - Design, construction and testing

ZWS ISO 11625:2007
Gas cylinders - Safe handling

ZWS ISO 12209:2013
Gas cylinders - Outlet connections for gas cylinder valves for compressed breathable air

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Gas cylinders - Outlet connections for gas cylinder valves for compressed breathable air

ZWS ISO/TR 13086: Part 1:2011
Gas cylinders - Guidance for design of composite cylinders
Part 1: Stress rupture of fibres and burst ratios related to test pressure

ZWS ISO/TR 13086: Part 2:2017
Gas cylinders - Guidance for design of composite cylinders
Part 2: Bonfire test issues

ZWS ISO/TR 13086: Part 3:2018
Gas cylinders- Guidance for design of composite cylinders
Part 3: Calculation of stress ratios

ZWS ISO/TR 13086: Part 4:2024
Gas cylinders - Guidance for design of composite cylinders
Part 4: Cyclic fatigue of fibres and liners

ZWS ISO/TR 13086: Part 5: 2022
Gas cylinders - Information for design of composite cylinders
Part 5: Impact testing of composite cylinders

ZWS ISO 13338:2022
Gas cylinders — Gases and gas mixtures — Determination of corrosiveness for the selection of cylinder valve outlet

ZWS ISO 13769:2018
Gas cylinders -Stamp marking

ZWS ISO 20475:2018
Gas cylinders - Cylinder bundles - Periodic inspection and testing

ZWS ISO 22991:2004
Gas cylinders - Transportable refillable welded steel cylinders for liquefied petroleum gas (LPG) - Design and construction

ZWS ISO 23088:2020
Gas cylinders — Periodic inspection and testing of welded steel pressure drums — Capacities up to 1 000 l

ZWS ISO 23876:2022
Gas cylinders - Cylinders and tubes of composite construction - Acoustic emission examination (AT) for periodic inspection and testing

ZWS ISO 24431:2016
Gas cylinders - Seamless, welded and composite cylinders for compressed and liquefied gases (excluding acetylene) - Inspection at time of filling

23.040 Pipelines components and pipelines

ZWS 186:1976
Identification of pipelines

23.040.10 Iron and steel pipes

ZWS 102:1993
Steel pipes

ZWS 243:1979
Cast iron pipes and pipe fittings for use above ground in drainage installations

23.040.20 Plastics pipes

ZWS 156:1975
Plasticized polyvinyl chloride (UPVC) components for rainwater systems

ZWS 219:1993
Unplasticized polyvinyl chloride (UPVC) sewer and drain pipes and pipe fittings

ZWS 220:1993
Unplasticized polyvinyl chloride (UPVC) soil, waste and vent pipes and fittings

ZWS 327:2001/2002
Unplasticized polyvinyl chloride pressure pipes

ZWS 900:2004
Structured wall pipes and fittings of unplasticized poly (vinyl chloride) (PVC -U) for buried drainage and sewage systems

ZWS ISO 1167: Part 1:2006
Thermoplastics pipes, fittings, and assemblies for the conveyance of fluids – Determination of the resistance to internal pressure
Part 1: General method

ZWS ISO 1167: Part 2:2006
Thermoplastics pipes, fittings, and assemblies for the conveyance of fluids – Determination of the resistance to internal pressure
Part 2: Preparation of pipe test pieces

ZWS ISO 1167: Part 3:2007
Thermoplastics pipes, fittings, and assemblies for the conveyance of fluids – Determination of the resistance to internal pressure
Part 3: Preparation of components

ZWS ISO 1167: Part 4:2007
Thermoplastics pipes, fittings, and assemblies for the conveyance of fluids – Determination of the resistance to internal pressure
Part 4: Preparation of assemblies

ZWS ISO 2505:2005
Thermoplastics pipes — Longitudinal reversion — Test method and parameters

ZWS ISO 3127:1994
Thermoplastics pipes – Determination of resistance to exter-nal blows – Round-the-clock method

ZWS ISO 3219:1993
Plastics – Polymers/resins in the liquid state or as emulsions or dispersions – Determination of viscosity using a rotational viscometer with defined shear rate

ZWS ISO 4427: Part 2:2019/AMD 1:2023
Plastics piping systems for water supply, and for drainage and sewerage under pressure - Polyethylene (PE)
Part 2: Pipes

ZWS ISO 9852:2007
Unplasticized poly(vinyl chloride) (PVC-U) pipes — Di-chloromethane resistance at specified temperature (DCMT) — Test method

23.040.40 Metal fittings

ZWS141: 1978
Cast iron fittings for asbestos-cement pressure pipes

ZWS 325:1990
Capillary and compression fittings for copper tubes

ZWS 326:1990
Copper tubes

ZWS 537:1997
Malleable cast iron fittings threaded to ISO 7: Part 1

23.040.50 Pipes/fittings of other materials

ZWS 1076:1964
Concrete pipe laying design

ZWS 113:2000
Fibre-cement pressure pipes and joints

ZWS 195:1976
Asbestos-cement pipes for sewerage and drainage

ZWS 315:1995
Concrete pipes (non-pressure)

ZWS 342:1977
Earthenware drain and sewer pipes and fittings

23.040.70 Hoses and hose reel assemblies

ZWS 814:1968
Concrete pipe fittings including manholes and inspection covers

ZWS 816:1968
Precast reinforced box culverts

23.040.60 Flanges /couplings and joints

ZWS 196:1976
Materials for elastomeric joint rings for pipework and pipelines

ZWS 238:1978
Hose clamps (worm drive type) for general purpose use

ZWS 1045:2019
Installation, commissioning and maintenance of fire hose reels

23.040.99 Other pipeline components

ZWS 237:1978
Testing water boreholes

23.060 Valves

ZWS 222:1984
Draw-off taps and above-ground stop valves for water services (screw-down pattern)

23.060.30 Gate valves

ZWS 148:1993
Cast steel gate valves

ZWS 149:1993
Cast iron gate valves for water works

ZWS 289:1986
Cast iron wedge and double disk gate valves for general purposes

ZWS 148:1994
Cast steel gate valves

23.080 Pumps

ZWS 881:2013
B – Type bush pump

23.120 Ventilators. Fans. Air-conditioners

ZWS IEC 60335: Part 2-40:2022
Household and similar electrical appliances – Safety:
Part 2-40: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers

ZWS ISO 5151/Amd 1:2020
Non-ducted air conditioners and heat pumps — Testing and rating for performance

ZWS ISO 16358-1:2013/Amd 1:2019
Air-cooled air conditioners and air-to-air heat pumps -- Testing and calculating methods for seasonal performance factors
Part 1: Cooling seasonal performance factor

ZWS ISO 16358: Part 2:2013
Air-cooled air conditioners and air-to-air heat pumps -Testing and calculating methods for seasonal performance factors
Part 2: Heating seasonal performance factor

ZWS ISO 16358:Part 3:2013
Air-cooled air conditioners and air-to-air heat pumps -- Testing and calculating methods for seasonal performance factors
Part 3: Annual performance factor

ZWS ISO 18326:2018
Non-ducted portable air-cooled air conditioners and air-to-air heat pumps having a single exhaust duct – Testing and rating for performance

25 Manufacturing engineering
25.080.60 Sawing machines

ZWS 731:1992
Woodcutting band saw blades

25.100 Cutting tools
25.100.30 Drills

ZWS 279:1995
Twist drills

25.100.40 Saws

ZWS 139:1975
Meat-cutting band saw blades

25.100.60 Files

ZWS 824:2012
Files and rasps – Rasps and engineer's file

25.100.70 Abrasives

ZWS 248:1983
Abrasive papers and cloths

25.140 Hand-held tools
25.140.30 Hand operated tools

ZWS 168:1975
Screwdrivers

ZWS 282:1993
Open-end, ring and combination spanners

25.160 Welding, brazing and soldering
25.160.20 Welding consumables

ZWS 192:1976
Covered electrodes for the manual metal-arc welding of carbon and carbon manganese steels

ZWS 270:1992
Filler metals for brazing

25.160.30 Welding equipment

ZWS 347:1991
Handheld blowpipes, mixers and nozzles, using fuel gas and oxygen, for gas welding, cutting and related processes

25.160.40 Welded joints and welds

ZWS EN 1435:2002
Non-destructive examination of welds – Radiographic examination of welded joints

25.160.50 Brazing and soldering

ZWS 860:1967
Soft solders

ZWS 242:1979
Resin cored solders (metric units)

25.220.40 Metallic coatings

ZWS ISO 1461:1998
Hot-dip galvanized coatings on iron and steel articles

27 Energy and heat transfer engineering

ZWS ISO 50001:2018
Energy management systems – Requirements with guidance for use

ZWS ISO 50002:2014
Energy audits – Requirements with guidance for use

ZWS ISO 50003:2014
Energy management systems – Requirements for bodies providing audit and certification of energy management systems

ZWS ISO 50004:2020
Energy Management System- Guidance for the Implementation Maintenance and Improvement of and 50001 Energy management System

ZWS ISO 50006:2014
Energy management systems – Measuring energy performance using energy baselines

ZWS ISO/TS 50008:2018
Energy management and energy savings – Building energy data management for energy performance – Guidance for a systemic data exchange approach

ZWS ISO 50015:2014
Energy management systems – Measurement and verification of energy performance of organizations

ZWS ISO 50021:2019
Energy management and energy savings — General guidelines for selecting energy savings evaluators

ZWS ISO/TS 50044:2019
Energy saving projects (EnSPs) guidelines for economic and financial evaluation.

ZWS ISO 50045:2019
Technical guidelines for the evaluation of energy savings of thermal power plants

ZWS ISO 50046:2019
General methods for predicting energy savings

ZWS ISO 50049:2020
Calculation methods for energy efficiency and energy consumption variations at country, region and city levels: Relation to energy savings and other factors

27.020 Internal combustion engines

COMESA ZWS HS ISO 8528:2013
Reciprocating internal combustion engine driven alternating current generating sets

27.060 Burners and boilers

ZWS 182:1976
Steel boiler and superheater tubes

ZWS 649:200
The inspection and repair of boilers

27.160 Solar energy engineering

ZWS 278:1984
Collectors for solar water heaters

ZWS 322:1993
Photovoltaic modules

ZWS 522:2017
Solar batteries

ZWS 523:1999
Fluorescent lights for use in photovoltaic systems

ZWS 524:1998
Charge controllers for photovoltaic systems using lead-acid batteries

ZWS 536:1998
Design, sizing and installation of battery based photovoltaic systems

ZWS 713:2007
Domestic solar heaters

ZWS 744:2003
Code of practice for the installation of solar water heaters

ZWS 1017:2017
Domestic solar water heaters – mechanical qualification test methods

ZWS 1025:2017
Domestic storage solar heating systems

ZWS 1026:2017
Fixed electric storage water heaters

ZWS 1029:2017
Thermostats for electric storage water heaters

ZWS 1031:2017
The installation, maintenance replacement and repair of fixed electric storage water heating systems

ZWS 1032-1:2017
Thermal performance test using outdoor method

ZWS 1032-2:2017
Thermal performance test using indoor method

ZWS 1033:2017
Energy efficiency of electrical and electronic apparatus

ZWS ISO 9459:1999
Solar heating – Domestic water heating systems

ZWS ISO 6509-1:2014
Corrosion of Metals and Alloys

27.190 Biological sources and alternative sources of energy

ZWS ISO 20675:2018
Biogas - Biogas production, conditioning, upgrading and utilization - terms, definitions and classification scheme

ZWS ISO 23590:2020
Household biogas system requirements: design, installation, operation, maintenance and safety

27.200 Refrigeration Technology

ZWS 1012:2019
Requirements for certification of refrigeration and air conditioning practitioners.

29 Electrical engineering
29.020 Electrical engineering in general

ZWS 316:1997
Graphical symbols for electrical diagrams

ZWS 400:2024
Code of practice for electrical wiring of premises (SAZ Wiring Rules)

COMESA ZW HS IEC 60038:2013
Standard voltages

COMESA ZWS HS 60059:2013
Standard current ratings

ZWS IEC 60364-7-710:2021
Low voltage electrical installations or location:
Part 7- 710: Requirement for special installations or location-medical location

ZWS IEC 60364-7-711:2018
Low voltage electrical installations or location
Part 7- 711: requirements for special installations or location-exhibitions, shows and stands

29.035 Insulating materials

ZWS 138:1975
Bitumen-based filling compounds for electrical purposes

29.040.20 Insulating gases

COMESA ZWS HS IEC 62219:2009
Overhead electrical conductors – Formed wire, concentric lay, stranded conductors

29.060 Electrical wires and cables
29.060.10 Wires

ZWS 834:1872
Enameled copper conductors (polyvinylacetal base with high mechanical properties)

ZWS 109:1995
Winding wires

ZWS 526:1996
Copper for electrical purposes

ZWS 834:1972
Enameled copper conductors (polyvinyl acetal base with high mechanical properties)

ZWS 890:2005
Specification of high-voltage bus bar and bus bar connections

29.060.20 Cables

ZWS 188:1976
Cable glands for elastomer and plastic insulated cables

ZWS 240:1999
Electric cables with extruded solid dielectric insulation for fixed installations (300/500V to 1 900/3 330V)

ZWS 680:1998
Materials of insulated electric cables and flexible cords

ZWS 732:2001
Electric cables – Flexible cords and flexible cables

ZWS 764:2001
Cables and conductors – Dimensions of the components of electric cables, flexible cables and flexible cords

ZWS 765:2001
Cables and conductors – Flexing test and flexible cords

ZWS 766:2001
Cables and conductors – Kink resistance of circular flexible cords

ZWS 767:2001
Cables and conductors – Conductor resistance

ZWS 768: 2001
Cables and conductors – Alternating current spark test on electric cables and cords

ZWS 769:2001
Cables and conductors – Power frequency voltage test on electric cables

ZWS 770:2001
Cables and conductors – Dielectric resistance on electric cables

ZWS 771:2001
Cables and conductors – Heat resistances of cables and flexible cords

ZWS 772:2001
Cables and conductors – Flexing test for extensible loads

ZWS 773:2001
Cables and conductors - Wear resistance of braided and unkinkable cords

ZWS 774:2001
Cables and conductors – Bending test for highly flexible cords such as tinsel cords

ZWS 775:2001
Cables and conductors – Extension test for extensible leads

ZWS 776:2001
Cables and conductors – Overall dimensions and ovality of electric cables and cords

ZWS 889:2004
Conductors for overhead electrical transmission lines

COMESA ZWS HS IEC 60227:2009
Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V – Flexible cables (Cords)

COMESA ZWS HS IEC 60228:2009
Conductors for insulated cables

COMESA ZWS HS IEC 60502:2009
Power cables with extruded insulation and their accessories for rate voltages form 1kV (U_m = 1,2kV) Up to 30 kV (U_m =36kV)

COMESA ZWS HS IEC 60889:2009
Zinc coated steel wires for stranded conductors

COMESA ZWS HS IEC 61427:2009
Secondary cells and batteries for photovoltaic energy systems (PVE) – General requirements and methods of test

29.080 Insulation
29.080.10 Insulators

ZWS 172:1975
Ceramic insulators and pole fittings for telephone lines

ZWS 178:1976
Low voltage insulators

COMESA ZWS HS IEC 60433:2013
Insulators for overhead lines with a nominal voltage above 1000V – Ceramic insulator for A.C. systems – Characteristics of insulator units of the long rod type

COMESA ZW HS IEC 61466:2013
Composite string insulator units for overhead lines with a nominal voltage greater than 1000 V

29.120 Electrical accessories
29.120.10 Conduits

ZWS 179:1976
Cleats, bobbins and leading-in tubes

ZWS 241:1979
Screwed metal conduit and fittings for electrical wiring
ZWS 277:1993
Non-metallic conduit (metric units)

29.120.20 Connecting devices

ZWS 206:1977
Snap-on connectors

ZWS 555:1997
Cold pour resin compound and heat-shrink cable joints in the voltage range up to 1 000V a.c. and 1 500 d.c.

29.120.30 Plugs, socket outlets, couplers

ZWS 121:1989
Two-pole and earthing-pin plugs socket-outlets and socket-outlet adaptors for circuits up to 250volts

ZWS 205:1977
Electric cable soldering sockets

ZWS 556:1977
13 A plugs, socket-outlets adaptors and connection units

COMESA ZWS HS IEC 884.2.5:2009
Plugs and socket-outlets for household and similar purposes

COMESA ZWS HS IEC 60309-1:2009
Plugs, socket – outlets and cables for industrial purposes – General requirements

COMESA ZWS HS IEC 60309.2:2009
Plugs socket-outlets and couplers for industrial purposes – Dimensional interchangeability requirements for pin and contact tube accessories

COMESA ZWS HS IEC 60884-1:2009
Plugs and socket – Outlets for household and similar purposes – General requirements

COMESA ZWS HS IEC 60884.2.1:2009
Plugs and socket-outlets for household and similar purposes – Particular requirements for fused plugs

COMESA ZWS HS IEC 60884.2.2:2009
Plugs and socket-outlets for household and similar purposes – Particular requirements for socket-outlets for appliances

29.120.40 Switches

ZWS 147:1998
Switches for household and similar fixed electrical installations – General requirements

29.120.50 Fuses

ZWS 122:1991
General purpose fuse links for domestic and similar purpose (primarily for use in plugs)

29. 130 Switchgear and control gear
29.130.20 Low voltage switchgear and control gear

ZWS IEC 60364:Part 5-53:2019
Low voltage electrical installations
Part 5-53: Selection and erection of electrical equipment- Devices for protection for safety, isolation, switching, control and monitoring

29.130.20 Low voltage switchgear and control gear

ZWS IEC 439:1996/1998
Low-voltage switchgear and control gear assemblies

ZWS IEC 947:1998
Low-voltage switchgear and control gear

ZWS IEC 61439: Part 1:2020
Low voltage switchgear and Controlgear assemblies
Part 1: General rules

29.140 Lamps and related equipment
29.140.20 Incandescent lamps

ZWS 464:1995
Incandescent lamps

ZWS IEC 432:1995
Safety specifications for incandescent lamps

29.140.30 Fluorescent / Discharge lamps

ZWS 127:1978
Ballasts for fluorescent lamps

ZWS 249:1980
Ballasts for low pressure sodium vapour and high intensity discharge lamps and reference ballasts for low pressure sodium vapour and high intensity discharge lamps

ZWS 354:1978
Fluorescent lamp ballasts

29.140.40 Luminaires

ZWS 273:1982
Electric luminaires

ZWS 290:1986
Electric luminaries-handlamps

29.160 Rotating machinery

COMESA ZWS HS IEC 60034:2013
Rotating electrical machines

29.160.20 Generators

COMESA ZWS HS ISO 8528:2013
Reciprocating internal combustion engine driven alternating current generating sets – Alternating current generators for generating sets

29.160.30 Motors

ZWS 274:1983
Single-phase induction motors

ZWS 835:2003
Three-phase induction motors

29.160.40 Generating sets

COMESA ZW HS ISO 8528:2013
Reciprocating internal combustion engine driven alternating current generating sets

29.180 Transformers, reactors

ZWS 191:1976
Current transformers

ZWS IEC 76:1998
Power transformers

COMESA ZWS HS IEC 60076:2013
Power Transformers

COMESA ZWS HS IEC 61378:2013
Converter transformers

29.220 Galvanic cells and batteries

ZWS 212:1978
Primary cells and batteries

ZWS 291:1986
Multi-cell dry batteries

29.240 Power distribution networks

ZWS 120:2022
Eucalyptus poles, cross-arms and spacers for power distribution and communication systems

ZWS 833:1971
Tubular steel poles

29.240.20 Power transmission and distribution lines

ZWS IEC 1089:2013
Round wire concentric lay overhead electrical stranded conductors

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Amendment 1
Round wire concentric lay overhead electrical stranded conductors

COMESA ZWS HS IEC 60104:2013
Aluminum-Magnesium-Silicon alloy wire for overhead line conductors

COMESA ZWS HS IEC 60888:2009
Hard-Drawn aluminum wire for overhead line conductors

COMESA ZWS HS IEC 61328:2013
Live working – Guidelines for the installation of transmission line conductors and earth wires – Stringing equipment and accessory items

COMESA ZW HS IEC 61865:2013
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31 Electronics

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Part 3: Power distribution

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Part 2: Application and registration procedures

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Part 1: Principles and framework

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Part 6: Administrative data

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39 Precision mechanics, jewellery
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43.020 Road vehicles in general

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Test methods

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Information technology personal identification –ISO –

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43.040.40 Braking systems

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Lights for motor vehicles

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The measurement of noise emitted by road vehicles when stationary

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43.040.50 Transmission, suspension

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43.040.65 Glazing and wiper systems

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SADC ZWS HS 899:2010
High penetration – Resistant laminated safety glass for vehicles

43.040.80 Crash protection and restraint systems

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Anchorages for restraining devices in motor vehicles

43.060 Internal combustion engines for road vehicles

43.060.01 Internal combustion engines for road vehicles in general

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Part 1: General requirements and definitions

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Part 2: Performance and General test methods

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Part 3: 80% stop valve

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Part 4: Level indicator

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Road vehicles – liquefied petroleum gas (LPG) fuel system components.
Part 5: Fuel selection system and electrical in-stallations

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Road vehicles – liquefied petroleum gas (LPG) fuel system components.
Part 6: pressure relief valves (prv)

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Part 7: Remotely controlled service valve with excess flow valve

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Road vehicles – liquefied petroleum gas (LPG) fuel system components.
Part 8: Fuel pump

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Part 9: Pressure relief Devices (PRD)

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Part 10: Gas-tight housing

ZWS ISO 20766: Part 11:2020
Road vehicles — liquefied petroleum gas (LPG) fuel system components
Part 11: Manual shut-off valve

ZWS ISO 20766: Part 12:2019
Road vehicles — liquefied petroleum gas (LPG) fuel system components
Part 12: Non-return valve

ZWS ISO 20766: Part 13:2022
Road vehicles — liquefied petroleum gas (LPG) fuel system components .
Part 13: Multivalve

ZWS ISO 20766: Part 14:2023
Road vehicles — Liquefied petroleum gas (LPG) fuel system components
Part 14: Vaporizer/pressure regulator

ZWS ISO 20766: Part 15:2023
Road vehicles — Liquefied petroleum gas (LPG) fuel system components
Part 15: Excess flow valve

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Road vehicles — Liquefied petroleum gas (LPG) fuel system components:
Part 16: Injectors and gas mixing device/fuel rail

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Road vehicles — Liquefied petroleum gas (LPG) fuel system components:
Part 17: Gas dosage unit

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43.120 Electric road vehicles

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Part 1: General requirements

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Part 2: Dimensional compatibility and interchangeability requirements for a.c. pin and contact-tube accessories

ZWS IEC 61851: Part 1:2017
Electric vehicle conductive charging system
Part 1: General requirements

ZWS IEC 61851: Part 21-1:2017
Electric vehicle conductive charging system
Part 21-1: Electric vehicle on-board charger EMC requirements for conductive connection to AC/DC supply

ZWS IEC 61851: Part 21-2:2018
Electric vehicle conductive charging system
Part 21-2: Electric vehicle requirements for conductive connection to an AC/DC supply – EMC requirements for off-board electric vehicle charging systems

ZWS IEC 61851: Part 23:2014
Electric vehicle conductive charging system
Part 23: DC electric vehicle charging station

ZWS IEC 61851: Part 24:2014
Electric vehicle conductive charging system
Part 24: Digital communication between a d.c EV charging station and an electric vehicle for control of d.c charging

ZWS IEC 61980: Part 1: 2020
Electric vehicle wireless power transfer (WPT) systems
Part 1: General requirements

ZWS IEC TS 61980: Part 2: 2019
Electric vehicle wireless power transfer (WPT) systems
Part 2: Specific requirements for communication between electric road vehicle (EV) and infrastructure

ZWS IEC 62576:2018
Electric double-layer capacitors for use in hybrid electric vehicles – test methods for electrical characteristics

ZWS IEC 62840: Part 1:2016
Electric vehicle battery swap system
Part 1: General and guidance

ZWS IEC 62840: Part 2:2016
Electric vehicle battery swap system
Part 2: Safety requirements

ZWS IEC 62840: Part 3:2021
Electric vehicle battery swap system
Part 3: Particular safety and interoperability requirements for battery swap systems operating with removable RESS/battery systems

ZWS IEC 63119: Part 1:2019
Information exchange for electric vehicle charging roaming service
Part 1: General

53 Materials handling equipment

53.020 Lifting equipment

53.020.30 Accessories for lifting equipment

ZWS 259:1982
Short link chain for lifting purposes - General conditions of acceptance

ZWS 260:1982
Short link chain for lifting purposes – grade M (4), non-calibrated for chain slings etc

ZWS 261:1982
Short link chain for lifting purposes – Grade M (4), calibrated for chain hoists and other lifting appliances

ZWS 262:1982
Short link chain for lifting purposes – Grade T (8), non-calibrated, for chain slings etc

ZWS 263:1982
Short link chain for lifting purposes – Grade T (8), calibrated, for chain hoists and other lifting appliances

ZWS 878:2003
Snatch blocks

53.020.99 Other lifting equipment

ZWS 268:1992
Mechanical jacks
ZWS 337:1991
Hydraulic jacks

53.040 Continuous handling equipment

53.040.10 Conveyors

ZWS 848:1973
Portable and mobile screw conveyors for agricultural use

53.040.20 Components for conveyors

ZWS Z14:1971
Conveyor belting for use in flammable or explosive atmospheres

ZWS 159:1975
Rubber and plastics belting of textile construction for use on bucket elevators

ZWS 217:1978
Rubber, balata or plastics flat transmission belting of textile construction for general use

ZWS 229:1979
General purpose textile-reinforced conveyor belting

53.120 Equipment for manual handling

ZWS 117:1974
Small garden implements

ZWS 153:2000
Spades and shovels

ZWS 154:1975
Forks and rakes

55 Packaging and distribution of goods

55.020 Packaging and distribution of goods in general

ZWS ISO 780:2015
Packaging – Distribution packaging – Graphical symbols for handling and storage of packages

ZWS ISO 3394:2012
Packaging – Complete, filled transport packages and unit loads – Dimensions of rigid rectangular packages

ZWS ISO 8317:2015
Child-resistant packaging – Requirements and testing procedures for reclosable packages

ZWS ISO 15394:2017
Packaging - Bar code and two-dimensional symbols for shipping, transport and receiving labels

ZWS ISO 18603:2013
Packaging and environment— reuse

ZWS ISO 18604:2013
Packaging and environment - material recycling

ZWS ISO 18605:2013
Packaging and the environment – energy recovery

ZWS ISO 18606:2013
Packaging and the environment – organic recovery

ZWS ISO 21067: Part1:2016
Packaging – Vocabulary:
Part 1: General terms

55.040 Packaging materials and accessories

ARS ZW HS 1710:2023
Natural and extensible sack Kraft paper

ARS ZW HS 1711:2023
Paper and board food contact packaging material

ARS ZW HS 1712:2023
Paper plates and cups for food packaging

ARS ZW HS 1716:2023
Migration of constituents of plastic materials and articles intended to come into contact with foodstuffs

ZWS 201:1977
Liners and fluting for corrugated board

ZWS 779:2001
Tobacco wrapping paper (moisture-barrier coated)

55.080 Sacks and bags

ARS ZW HS 1600:2026
Non-woven bags — Specification

ZWS 294:1999
Woven polypropylene bags

ZWS 465:1994
Woven polypropylene grain bags

ZWS 527:1997
Heavy duty thermoplastic flexible film sacks

ZWS ISO 6591:1996
Packaging – Sacks – Description and method of measurement

ZWS ISO 7023:1996
Packaging – Sacks – Method of sampling empty sacks for testing

ZWS ISO 7965:1996
Sacks – Drop test

55.100 Bottles, Pots and jars

ARS ZW HS 1718:2023
Aluminium cans for beverages

ARS ZW HS 1719:2023
Packaging – Code of practice – Glass containers

ARS ZW HS 1748: Part 1:2023
Glass containers
Part 1: Bottles for carbonated and non-carbonated drinks

ZWS ISO 7458:2000
Glass containers – Internal pressure resistance – Test methods

ZWS ISO 8113:2000
Glass containers – Resistance to vertical load

55.140 Barrels, drums and canisters

ZWS 360:1993
Self-supporting plastics containers of nominal capacities 5 to 220 litres

ZWS ISO 13106:2014
Plastic – blow-moulded polypropylene containers for packaging of liquid foodstuffs

55.160 Cases, boxes and crates

ARS ZW HS 988:2023
Plastic crates

ZWS O1:1965
Box timber

ZWS 252:1980
Agricultural box shooks and box boards

ZWS 858:2005
Timber drums for insulated electric cables and bare conductors

55.180.20 General purpose pallets

ZWS ISO 6780:2000
General purpose flat pallets for through transit goods – Principal dimensions and tolerances

ZWS ISO 8611:2000
General purpose flat pallets for through transit of goods – Test methods

55.180.99 Freight distribution of goods

ZWS ISO 21898:2004
Packaging – Flexible intermediate bulk containers (FIBCs) for non-dangerous goods

55.230 Distribution and vending machines

ZWS 1080:2022
Nicotine-containing tobacco free oral product 3-(1- methyl, 2-Pyrrodinyl) Pyrindine

59 Textile and leather technology
59.060 Textile fibres

COMESA ZWS HS ISO/ TR 5090:2008
Textiles – Methods for the removal of non-fibrous matter prior to quantitative analysis of fibre mixtures

COMESA ZWS HS ISO 6989:2008
Textile fibres – Determination of length distribution of staple fibres (By measurement of single fibres)

COMESA ZWS HS ISO 12952:2008
Textiles – Burning behavior of bedding items

COMESA ZWS HS ISO 1130:2008
Textile fibres – Some methods of sampling for testing

59.060.01 Textile fibres in general

COMESA ZWS HS ISO 6741
Textiles – Fibres and Yarns – Determination of commercial mass of consignments

COMESA ZWS HS ISO 6938:2008
Textiles – Natural fibres – Generic names and definition

59.060.10 Natural fibres

COMESA ZWS HS ISO 8159:2009
Textiles – Morphology of fibres and yarns – Vocabulary

COMESA ZWS HS ISO 8115:2009
Cotton bales – Dimensions and density

COMESA ZWS HS ISO 3060:2009
Cotton fibres – Determination of breaking tenacity of flat bundles

COMESA ZWS HS ISO 2647:2009
Wool – Determination of percentage of medullated fibres by the projection microscope

COMESA ZWS HS ISO 1973:2008
Textiles fibres – Determination of linear density gravimetric methods and vibroscope method

COMESA ZWS HS ISO 2370:2008
Textiles – Determination of fineness of flax fibres permeametric methods

COMESA ZWS HS ISO 2646:2008
Wool – Measurement of the length of fibres processed on the worsted system using a fibre diagram machine

COMESA ZWS HS ISO 4913:2008
Textiles – Cotton fibres – Determination of length (span length) and uniformity index

COMESA ZWS HS ISO 5079:2008
Textile fibres – Determination of breaking force and elongation at break of individual fibres

COMESA ZWS HS ISO 5088:2008
Textiles – Ternary mixtures – Quantitative analysis

COMESA ZWS HS ISO 10306:2008
Textiles – Cotton fibres – evaluation of maturity by the air flow method

COMESA ZWS HS I:2009
Wool – Determination of fibre diameter – Projection microscope method

59.080 Products of the textile industry
59.080.01 Textiles in general

ZWS 840:2002
Conditioning of textiles and standard temperature atmospheres for determining their physical and mechanical properties (metric units)

ZWS ISO 3758:2000
Textile – care labeling code using symbols

59.080.30 Textiles fabrics

ZWS 107:1998
The assessment of defects in textile piece-goods and made-up articles

ZWS 1068:2023
Reusable menstrual cups

ZWS ARS 1573: Part 1:2024
Textiles woven cotton and similar household fabrics and articles **Part 1:2024:** Basic requirements for piece-goods and made-up articles

ZWS ARS 1573: Part 2:2024
Textiles woven cotton and similar household fabrics and articles **Part 2: 2024:** Winter sheeting, sheets and pillowcases

ZWS ARS 1573: Part 3:2024
Textiles woven cotton and similar household fabrics and articles **Part 3:** Cotton sheeting, sheets and pillowcases

ZWS ARS 1573: Part 4:2024
Textiles woven cotton and similar household fabrics and articles **Part 4: 2024:** Polyester /cotton blend sheeting, sheets and pillowcases

ZWS ARS 1573: Part 5:2024
Textiles woven cotton and similar household fabrics and articles **Part 5: 2024:** Terry towelling, towels, and other terry weave articles, sheets and pillowcases

ZWS ARS 1573: Part 6:2024
Textiles woven cotton and similar household fabrics and articles **Part 6:** Cotton curtain fabrics, sheets and pillowcases

ZWS ARS 1573: Part 7:2024
Textiles woven cotton and similar household fabrics and articles **Part 7:** Cotton curtain lining

COMESA ZWS HS ISO 1136:2009
Wool – Determination of mean diameter of fibres – Air permeability method

ZWS 234:1978
Terry toweling, towels and other terry weave articles

ZWS 247:1985
Cotton sailcloth, cotton jean and drill fabrics, cotton denim and cotton indigo denim

ZWS 709:1998
Bow and skewness in woven textile fabrics

ZWS 710:1999
Fluidity of cotton certain cellulosic man-made fibres with cuprammonium solution (modified method)

ZWS 730:2015
The manufacture of disposable pads

ZWS 855:1971
Loomstate cotton duck

ZWS ISO 3801:1998
Textiles – Woven fabrics – Determination of mass per unit length and mass per unit area

ZWS ISO 3932:1998
Textiles – Woven fabrics – Measurement of width of pieces

ZWS ISO 3933:1998
Textiles – Woven fabrics – measurement of length of pieces

ZWS ISO 5077:1998
Textiles – Woven fabrics - Determination of dimensional change in washing and drying

ZWS ISO 5081:1998
Textiles – Woven fabrics – Determination of breaking strength and elongation (strip method)

ZWS ISO 5082:1998
Textiles – Woven fabrics – Determination of breaking strength – Grab

ZWS ISO 7211:1998
Textiles – Woven fabrics – Construction – Methods for analysis

COMESA ZWS HS ISO 1136:2009
Wool – Determination of mean diameter of fibres – Air permeability method

59.080.40 Coated fabrics

ZWS174:1983
Tarpaulins

ZWS 854:1972
Coated knitted fabrics for upholstered furniture (PVC) types

59.080.50 Ropes

ZWS 286:1985
Natural fibre ropes

ZWS ISO 2307:2000
Ropes – Determination of certain physical and mechanical

ZWS ISO 3758:2000
Textile – care labeling code using symbols

59.080.99 Other products of the textile industry

ZWS 750:2002
Absorbent cotton wool

59.140 Leather technology
59.140.20 Raw skins, hides

ZWS 295:1989
Salt cured and shade dried bovine hides

59.140.30 leather and furs

ARS ZW HS 1555:2023
Leather – gloves

ARS ZW HS 1556:2023
Leather – Chrome tanned bend outer sole

ARS ZW HS 1557:2023
Leather – Vegetable tanned bend outer sole

COMESA ZWS HS ISO 5403:2007
Leather – Physical and mechanical tests. Determination of water resistance of flexible leather

COMESA ZWS HS ISO 5433:2007
Leather – Bovine wet blue – specification

COMESA ZWS HS ISO 2419:2007
Leather – Physical and mechanical tests – Sample preparation and conditioning

COMESA ZWS HS ISO 3376:2007
Leather – Physical and mechanical tests –Determination of tensile strength and percentage extension

COMESA ZWS HS ISO 5431:2007
Leather – Wet blue Goat skins – specification

COMESA ZWS HS ISO 17186:2007
Leather – Physical and mechanical tests – Determination of surface coating thickness

COMESA ZWS HS ISO 17227:2007
Leather – Physical and mechanical tests – Determination of dry heat resistance of leather

COMESA ZWS HS ISO 5432:2007
Leather – Wet blue sheep skins – Specification

COMESA ZWS HS ISO 14931:2007
Leather – Guide to the sselection of leather for apparel (excluding furs)

COMESA ZWS HS ISO 2418:2007
Leather – Chemical, Physical and Mechanical and Fastness tests – Sampling location

COMESA ZWS HS ISO 3377:2007
Leather – Physical and mechanical tests – Determination of tear load

COMESA ZWS HS ISO 9477:2007
High strength cast steels for general engineering and structural purposes

COMESA ZWS HS ISO 2588:2007
Leather – Sampling – number of items for a gross sample

61 Clothing industry
61.040 Headgear, clothing accessories, fastening of clothing

ZWS 324:1990
Slide fasteners

61.020 Clothes

ZWS 755:2002
Knee – High stockings and ankle socks

ZWS 756:2002
Men's and women's hose for industrial use
ZWS 828:2002
Dimensions for hosiery

ARS ZW HS 1568:13-2019
School clothing –Athletic Wear

ARS ZW HS 1568:12-2019
School clothing –tracksuits

ARS ZW HS 1568:10-2019
School clothing –Jersey and cardigans

ARS ZW HS 1568:9-2019
School clothing –Knee highs and socks

ARS ZW HS 1568:8-2019
School clothing –Warp Knitted Fabrics

ARS ZW HS 1568:7-2019
School clothing – Slacks and skirts

ARS ZW HS 1568:6-2019
School clothing – Dresses, Tunics and Gyms

ARS ZW HS 1568:4-2019
School clothing –Shirts

ARS ZW HS 1568:3-2019
School clothing –Trousers ans shorts

ARS ZW HS 1568:2-2019
School clothing –Blazers

ARS ZW HS 1568:1-2019
School clothing –General Requirements

61.060 Footwear

ZWS Z1:1961
Minimum requirements for youths' and men's footwear

ZWS 1055:1986
Men's quality shoes for town and office wear

ZWS 1054:1971
Tennis shoes for adults

ZWS 1100:2023
Men's heavy Oxford style shoes for services' use

ZWS 1101:2023
Men's military style service boots

ZWS 1098:2023
Boot and shoe laces

ARS ZW HS 1554:2019
Leather –Ladies fashion Handbags specification

ARS ZW HS 1553:2019
Leather –Mens and Women's belts specification

ARS ZW HS 1558:2023
Footwear – Children's school shoes with direct injection

ARS ZW HS 1559:2023
Footwear – men's open shoes

ARS ZW HS 1561:2019
Footwear – Women's open shoes – specification

ARS ZW HS 1562:2019
Footwear – Women's closed shoes – specification

ARS ZW HS 1563:2023
Footwear – Children's shoes (above 2 years and below)

ARS ZW HS 1563:2023
Footwear – Children's shoes (2 to 6years)

ARS ZW HS 1565:2019
Footwear – Sports shoes – specification

ZWS ISO 17694:2016
Footwear – Test methods for uppers and lining – Flex resistance

ZWS ISO 17699:2003
Footwear – Test methods for uppers and lining – Water vapour permeability and absorption

ZWS ISO 17700:2019
Footwear - Test methods for upper components and insocks - Colour fastness to rubbing and bleeding

ZWS ISO 17707:2005
Footwear -Test methods for outsoles - Flex resistance

ZWS ISO 19574:2022
Footwear and footwear components -Qualitative test meth-od to assess antifungal activity (growth test)

ZWS ISO 20150: 2019
Footwear and footwear components — Quantitative challenge test method to assess antifungal activity

ZWS ISO 24266:2020
Footwear - Test methods for whole shoe - Flexing durability

ZWS ISO 24267:2020
Footwear - Determination of coefficient of friction for foot-wear and sole components

65 Agriculture

ZWS 862:2004
The production, processing, labelling and marketing of organi-cally produced foods

65.020 Farming and forestry

ZWS 915:2012
Organic Farming

ZWS 1019:2017
Zimbabwe Horticulture – Good agricultural Practice (GAP)

65.040.10 Farm buildings and installations in general
65.060 Agricultural machines, implements and equipment
65.060.20 Soil working equipment

ZWS N7:1971
Agricultural discs

ZWS 861:2003
Farm-animal drawn plough share

65.060.30 Sowing and planting equipment

ZWS ISO 7256: 2000
Sowing equipment – Test methods

65.060.35 Irrigation and drainage equipment

ZWS 362:994
Aluminum tubes for irrigation purposes

ZWS 363:1996
Irrigation equipment – Irrigation sprayers and rotating sprinklers

ZWS 531:1996
Polyethylene (PE) pipes for irrigation laterals

ZWS 620:1985
Flexible polyvinyl chloride garden hose (metric units)

65. 060.40 Plant care equipment

ZWS 849:1969
Knapsack sprayers

65.060.50 Harvesting equipment

ZWS 209:1992
Sickles

65.060.70 Horticulture equipment

ZWS 679:1999
Power lawn-mowers, lawn tractors, lawn and garden tractors, professional lawn-mowers and lawn and garden tractors with lawn-mowing attachments

65.060.99 Other agricultural machines and equipment

ZWS 1092:2023
Requirements for power operated threshing and shelling equipment

ZWS 1102:2023
Requirements for Agricultural/ General Purpose Tractors

65.080 Fertilizers

ZWS 866:2003
Fertilizers – Magnesium nitrate

ZWS 867:2015
Fertilizers – Potassium sulfate

ZWS 868:2017
Fertilizers – Magnesium silicate anhydrous

ZWS 869:2015
Fertilizers – Calcium Nitrate

ZWS 870:2015
Fertilizers – Potassium nitrate (Nitrate of Potash)

ZWS 871:2015
Fertilizers – Ammonium nitrate

ZWS 872:2024
Fertilizers – Monoammonium phosphate (MAP)

ZWS 873:2015
Fertilizers – Zinc sulfate monohydrate

ZWS 874:2015
Fertilizers – Urea

ZWS 875:2015
Potassium chloride (muriate of potash) Fertilizer

ZWS 1021:2016
The safety of water treatment chemicals for use in the food industry

ZWS 1039:2018
Solid Organic Fertilizers

ZWS ISO 8157:2015
Fertilizers and soil conditions – Vocabulary

ARSO ZW HS 72:2016
Fertilizers – Sampling from a conveyor stopping the belt

ARSO ZW HS 73:2016
Fertilizers – Determination of nitrate nitrogen content

ARSO ZW HS 74:2016
Fertilizers – Determination of bulk density (loose)

ARSO ZW HS 212:2016
Fertilizers – Marking – Preservation and declaration

ARSO ZW HS 213:2016
Fertilizers and solid conditioners – Final samples – practical arrangements

ARSO ZW HS 500:2016
Solid fertilizers – Sampling

ARSO ZW HS 501:2016
Compound fertilizers – method of test

ARSO ZW HS 504:2016
Fertilizers – Ammonium sulphate – method of test

ARSO ZW HS 505:2016
Fertilizers – Ammonium sulphate

ZWS ISO 18644:2016
Fertilizers and soil conditioners – controlled release fertilizer – General requirements

ZWS ISO 18788:2015
Management system for private security operations - Requirements with guidance for use.

65.100 Pesticides and other agrochemicals

ZWS 158:1975
The use and disposal of acaricides (cattle dips)

ZWS 224:1978
The handling, storage and disposal of pesticides and their containers

ZWS 250:1980
Code of practice for the handling, storage and disposal of pesticides and used pesticides containers

ZWS 345:1991
Pesticides in the form of five percent disulfoton granules

65.100.10 Insecticides

ZWS 344:1991
Insecticides in the form of one percent or three percent trichlorfon granules

ZWS 346:1991
Insecticides in the form of two and half percent trichlorfon granules

65.120 Animal feeding stuffs

ARS ZW HS 939:2026
Feed maize — Specification

ARS ZW HS 1825: Part 1:2026
Hay as animal feed - Specification
Part 1: Rhodes and natural grass hay

ARS ZW HS 1825: Part 2:2026
Hay as animal feed - Specification
Part 2: Alfalfa (lucerne) hay

ARS ZW HS 1830:2026
Compounded goat and sheep feed – Specification

ARS ZW HS 1838:2026
Fish meal as animal feed - Specification

ARS ZW HS 2139:2026
Good animal feeding — Code of practice

ZWS 112:2023
Dog and cat food

ZWS 142:2023
Pig feeds

ZWS 517:2025
Poultry feeds

ZWS 518:2022
Cattle feeds

ZWS 530: 2022
Animal feeding stuffs – Sampling and preparation of test samples

ZWS 545: 2026
Animal feeding stuffs - Determination of calcium content - Titrimetric method

ZWS 546:1997
Animal feeding stuffs – Determination of total phosphorus content – Spectrophotometric method

ZWS 547:1996
Animal feeding stuffs – Determination of moisture content

ZWS 549:1996
Animal feeding stuffs – Determination of urea content

ZWS 550:1996
Animal feeding stuffs – Determination of free and total gossypol

ZWS 567:1996
Animal feeding stuffs – Determination of sodium chloride content

ZWS 571:1997
Animal feeding stuffs – General directions for the determination of nitrogen by the Kjeldahl method

ZWS 725:1999
Ostrich feed

ZWS 847:1972
Limestone flour for use in animal feeding stuffs

ZWS 1027:2017
Good Agricultural Practice For Animal Production Food Safety (ZSGAPAPFS)

ZWS 1051:2022
Good Agricultural Practices For free range poultry production

ZWS 1113:2024
Vitamin-mineral supplement licks

ZWS ISO 5510:1984
Animal feeding stuffs – Determination of available lysine

ZWS ISO 5983: Part 1:2005
Animal feeding stuffs - Determination of nitrogen content and calculation of crude protein content
Part 1: Kjeldahl method

ZWS ISO 5983: Part 2:2009
Animal feeding stuffs - Determination of nitrogen content and calculation of crude protein content
Part 2: Block digestion and steam distillation method

ZWS ISO 5984:2022
Animal feeding stuffs – Determination of crude ash

ZWS ISO 17375:2006
Animal feeding stuffs – Determination of aflatoxin B_1

ZWS ISO 20588:2019
Animal feeding stuffs – Vocabulary

ZWS ISO 30024:2024
Animal feeding stuffs – Determination of phytase activity

65.140 Beekeeping

ZWS 853:1974
Beehives

65.150 - Fishing and fish breeding

ARS ZWS 1106:2024
Tilapia production aquaculture farms - Good aquaculture practices

ARS ZWS 1107:2024
Freshwater Aquatic Animal Production Farms - Good aquacultural Practices

ARS ZW HS 1133:2026
Transport of live fish seeds for inland pisciculture purposes

ARS ZW HS 1138:2026
Transport of fresh aquarium fish

ZWS ARS ISO 12878:2012
Environmental monitoring of the impacts from marine finfish farms on soft bottom

65.160 Tobacco, tobacco products and related equipment

ZWS 823:1975
Underfeed stokers (ram or screw type)

ZWS 846:1973
Tobacco tying twine

ZWS 1121:2024
E-Vaping products

67 Food technology

67.020 Processes in the food industry

ZWS 126:1997/1999/2001
Food hygiene

ZWS 650:1997
Efficacy of cleaning plant, equipment and utensils – Swab technique

ZWS 651:1997
Efficacy of cleaning plant, equipment and utensils – Strip technique

ZWS 652:1997
Efficacy of cleaning plant, equipment and utensils – Agar sausage technique

ZWS 676:1998
Code of practice for the application of pesticides in the food industry

ZWS 749:2024
Requirements for a hazard analysis and critical control point (HACCP) Systems

ZWS ISO 8086:2005
Dairy plant – Hygiene conditions – General guidance on inspection and sampling procedures

ZWS ISO 15161:2003
Guidelines on the application of ISO 9000:2000 for the food and drink industry

ZWS ISO 22000:2018/AMD 1:2024
Food safety management systems requirements for organizations throughout the chain

ZWS ISO 22002: Part 1:2025
Prerequisite programmes on food safety
Part 1: Food Manufacturing

ZWS ISO 22002: Part 2:2025
Prerequisite programmes on food safety
Part 2: Catering

ZWS ISO/TS 22002: Part 3:2011
Technical specification – Prerequisite programmes on food safety
Part 3: Farming

ZWS ISO 22002: Part 4:2025
Prerequisite programmes on food safety
Part 4: Food packaging manufacturing

ZWS ISO 22002: Part 5:2025
Prerequisite programmes on food safety
Part 5: Transport and storage

ZWS ISO 22002: Part 6:2025
Prerequisite programmes on food safety
Part 6: Feed and animal food production

ZWS ISO 22002: Part 7:2025
Prerequisite programmes on food safety
Part 7: Retail and wholesale

ZWS ISO 22002: Part 100:2025
Prerequisite programmes on food safety
Part 100: Requirements for the food, feed and packaging supply chain

67.040 Agricultural food products in general

ZWS 373:1993
Agricultural food products – Determination of crude fibre content – General method

ZWS 375:1993
Agricultural food products – Determination of crude fibre content – Modified Scharrer method

ZWS ARS AES 02:2017
Fisheries – Sustainability and ecolabel ling Requirements

ARS ZW HS 833:2020
Fried banana chips

ARS ZW HS 852:2020
Fried potato chips

ARS ZW HS 831:2020
Fresh Bananas Specifications

ARS ZW HS 1109:2020
Good agriculture practices for food crops

67.060 Cereals, pulses and derived products

ZWS 330:1991
Storage of cereals and pulses

ZWS 331:1991
Storage of cereals and pulses

ZWS 392:1995
Sunflower seeds

ZWS 390:1995
Soya beans

ZWS 1050:2022
Instant cereal and pulse based porridge

ZWS ARS HS 461:2022
Maize Grains (Corn)

ARSO ZW HS 462:2023
Sorghum Grains

ARS ZW HS 463:2023
Pearl Millet Grains

ARSO ZW HS 464:2023
Milled Rice

ARSO ZW HS 465:2024
Wheat grains – Specification

ARSO ZW HS 466:2023
Milled maize (corn) products

ZWS ARS HS 468:2024
Sorghum Flour

ARSO ZW HS 469:2026
Millet flour

ARS ZW HS 470:2025
Wheat flour — Specification

ARS ZWS HS 871:2024
Dry split peas

ARS ZW HS 878:2025
Barley grains — Specification

ARS ZW HS 1041:2026
Raw milk

ARS ZW HS 1755:2025
Breakfast cereals — Specification

ARS ZW HS 1756:2025
Fonio grains

ARS ZW HS 1757:2025
Fonio flour — Specification

ARS ZW 1098:2025
Agricultural Structures – Warehouses for the storage of bagged cereals and pulses

ARS ZW 1099:2025
Good warehousing practice for storage of bagged cereals and pulses

ARS ZW 1348:2025
Amaranth flour – Specification

ARS ZW 1350:2025
Teff flour – Specification

ARS ZW 1351:2024
Teff Grain – Specification

ZWS 609:2000: Part 1
Bread - White

ZWS 609:2002: Part 2
Bread - Brown

ZWS 631:1998
Bakery products – Determination of total solid content

ZWS 632:1998
Bakery products – Determination of pH

ZWS 633:1998
Bakery products – Determination of acid insoluble ash

ZWS 634:1998
Bakery products – Determination of crude fibre

ZWS 636:1998
Bakery products – Determination of fat content

ZWS 637:1998
Bakery products – Determination of volume/mass ratio

ZWS 673:1998
Cereals and cereal products – Determination of ash

ZWS 675:1998
Wheat flower – Determination of total carbon dioxide

ZWS 677:1999
Wheat flower – Determination of particle size

ZWS 728:1999
Wheat flour – Determination of colour

ZWS 729:1999
Wheat flour – Determination of bran mass fraction

ZWS ISO 21415: Part 1:2006
Wheat and wheat flour - Gluten content
Part 1:2006: Determination of wet gluten by a manual method

ZWS ISO 21415: Part 2:2015
Wheat and wheat flour - Gluten content
Part 2:2015: Determination of wet gluten and gluten index by mechanical means

ZWS ISO 24333:2009
Cereals and cereal products — Sampling

67.020 Processes in the food industry

ZWS 806:2021
Hazardous waste management

ZWS ISO 22002:2025
Technical specification – Prerequisite programmes on food safety
Part 1: Food Manufacturing

ZWS ISO 22002: Part 2:2025
Technical specification – Prerequisite programmes on food safety
Part 2: Catering

ZWS ISO/TS 22002: Part 3:2011
Technical specification – Prerequisite programmes on food safety
Part 3: Farming

ZWS ISO 22002: Part 4:2025
Technical specification – Prerequisite programmes on food safety
Part 4: Food packaging manufacturing

ZWS ISO 22002: Part 5:2025
Prerequisite programmes on food safety
Part 5: Transport and storage

ZWS ISO 22002: Part 6:2025
Technical specification – Prerequisite programmes on food safety
Part 6: Feed and animal food production

ZWS ISO 22002: Part 7:2025
Prerequisite programmes on food safety
Part 7: Retail and wholesale

ZWS ISO 22002: Part 100:2025
Prerequisite programmes on food safety
Part 100: Requirements for the food, feed and packaging supply chain

ZWS ISO /TS 22003: Part 1:2022
Food safety
Part 1 – Requirements for bodies providing audit and certification of food safety management

ZWS ISO/TS 22003: Part 2:2022
Food safety
Part 2 – Requirements for bodies providing evaluation and certification of products, processes and services, including an audit of the food safety system

67.050 General methods of tests and analysis for food products

ZWS 332:2015
Labelling of food and feed that are and not products of genetic modification

67.060 Cereals, pulses and derived products

ARSO ZW HS 857:2024
Finger Millet Grains

ARSO ZWS HS 859:2024
Brown rice

ARSO ZW HS 864:2024
Dry beans

ARSO ZW HS 865:2015
Dry green grams

ARSO ZW HS 866:2015
Dry chickpeas

ARSO ZW HS 867:2024
Dry cowpeas

ARSO ZW HS 868:2024
Dry pigeon peas

ARSO ZW HS 869:2024
Dry whole peas

ARSO ZW HS 870:2024
Lentils

ARSO ZW HS 873:2015
Faba beans – Specification

ARSO ZW HS 874:2015
Dry lima beans – Specification

ARSO ZW HS 858:2024
Rough (Paddy) Rice – Specification

ARSO ZW HS 935:2015
Edible full fat soya flour

ARSO ZW HS 936:2015
Soy milk

ARSO ZW HS 937:2015
Soy protein products

ARSO ZW HS 938:2015
Textured soy protein products

ZWS 989:2015
Cereal legume blend

ZWS ISO 712:1996
Cereals and cereal products – Determination of moisture content (Routine reference method)

ZWS ISO 2171:2023
Cereals, pulses and by-products - Determination of ash yield by incineration

ZWS ISO 3093:2009
Wheat, rye and their flours, durum wheat and durum wheat semolina — Determination of the falling number according to Hagberg-Perten

ZWS ISO 6540:2021
Maize – Determination of moisture content (on milled grains and on whole grains)

ZWS ISO 7302:2003
Cereals and cereal products – Determination of fat content

ZWS ISO 7971: Part 1:2009
Cereals — Determination of bulk density, called mass per hectolitre
Part 1:2009: Reference method

ZWS ISO 7971: Part 2:2019
Cereals — Determination of bulk density, called mass per hectolitre
Part 2:2019: Method of traceability for measuring instruments through reference to the international standard instrument

ZWS ISO 7971: Part 3:2019
Cereals — Determination of bulk density, called mass per hectolitre
Part 3:2019: Routine method

COMESA ZWS HS 358:2004
Certain pulses

COMESA ZWS HS 403:2004
Whole and decorticated pearl millet grains

67.080 Fruits, vegetables

67.080.01 Fruits, vegetables and derived products in general

ZWS ISO 750:1998
Fruit and vegetable products – Determination of titratable acidity

ZWS ISO 751:1998
Fruit and vegetable products – Determination of water in soluble solids

ZWS ISO 762:2003
Fruit and vegetable products – Determination of mineral impurities content

ZWS ISO 763:1982
Fruit and vegetable products – Determination of ash insoluble in hydrochloric acid

ZWS ISO 1026:1982
Fruit and vegetable products – Determination of dry matter content by drying under reduced pressure and of water content by Azeotropic distillation

ZWS ISO 1842:1991
Fruit and vegetable products – Determination of pH

ZWS ISO 1955:1982
Citrus fruits and derived products – Determination of essential oil content (Reference Method)

ZWS ISO 2173:2003
Fruit and vegetable products – Determination of soluble solids – Refractometric method

ZWS ISO 5517:1978
Fruits, vegetables and derived products – Determination of iron content – 1,10 – Phenanthroline photometric method

ZWS ISO 5518:2007
Fruits, vegetables and derived products – Determination of benzoic acid content – Spectrophotometric method

ZWS ISO 5519:2008
Fruits, vegetables and derived products – Determination of sorbic acid content

ZWS ISO 5520:1981
Fruits, vegetables and derived products – Determination of alkalinity of total ash and of water-soluble ash

ZWS ISO 5522:1981
Fruits, vegetables and derived products – Determination of total Sulphur dioxide content

ZWS ISO 7447:1998
Fruit and vegetable products – Determination of tin content

67.080.10 Fruits and derived products

ARS ZW HS 906:2026
Fresh annonas

ARS ZW HS 893:2026
Fresh Apples

ARS ZW HS 894:2026
Fresh apricots

ARS ZW HS 900:2026
Fresh strawberries - Specification

ARS ZW HS 901:2026
Fresh berry fruits

ZWS 458:1994
Wax emulsion for coating citrus fruits

ZWS 746:2004
Fruit jams, jellies and marmalades

ZWS 747:1971
Canned fruits

COMESA ZWS HS 364:2004
Peanuts

COMESA ZWS HS 452:2005
Recommended code of practice for packaging and transport of tropical fresh fruits and vegetables

COMESA ZWS HS 453:2005
Avocadoes

COMESA ZWS HS 454:2005
Fresh mangoes

COMESA ZWS HS 455:2005
Fresh papaya

COMESA ZWS HS 456:2005
Dried apricots

COMESA ZWS HS 460:2005
Dehydrated fruits and vegetables including edible fungi

COMESA ZWS HS 476:2005
Desiccated coconut

COMESA ZWS HS 501:2005
Canned mangoes

COMESA ZWS HS 516:2005
Canned strawberry

67.080.20 Vegetables and derived products

ARS ZW HS 923:2026
Fresh chinese cabbages -Specification

ARS ZW HS 924:2026
Fresh brussels sprouts

ARS ZW HS 925:2026
Fresh broccoli

ARS ZW HS 928:2026
Fresh lettuces and endives -Specification

ARS ZW HS 933:2026
Fresh leafy vegetables -Specification

ARS ZW HS 972:2026
Fresh artichokes

ZWS S18:1968
Worcestershire sauce

ZWS S19:1968
Cucumber pickles

ZWS S25:1970
Canned soups

ZWS 974:2014
Tomato sauce / ketchup

ZWS 1013:2017
Tomatoes

ZWS 1073:2001
Canned vegetables

ZWS 1075:1999
Quick frozen vegetables

ZWS 1117:2024
Chili Sauce

ZWS 1118:2024
Processed Tomato Concentrates

ZWS 1133:2024
Potato crisps

COMESA ZWS HS 427:2005
Babycorn

COMESA ZWS HS 566:2005
Quick frozen broccoli

COMESA ZWS HS 635:2005
Canned sweet corn

COMESA ZWS HS 638:2005
Canned carrots

COMESA ZWS HS 644:2005
Canned tomatoes

67.100.01 Milk and milk products in general

ZWS ISO 17997:2014
Milk– Determination of nitrogen Content

ZWS ISO 3890:2009
Milk and milk products – Determination of residues of organochlorine compound (Pesticides)

ZWS ISO 5536:2009
Milk fat products – Determination of water content – Karl Fischer Method

ZWS ISO 8070:2007
Milk fat products – Determination of calcium, sodium, potassium and magnesium contents-atomic absorption Spectromic Method

ZWS ISO 8260:2008
Milk and milk products – Determination of organochlorine pesticides and colichlobybipheny - method using capillary gas – liquid chromatography with electron capture detection

ZWS ISO 13082:2011
Milk and milk products – Determination of the lipase activity of pregastric lipase preparation

ZWS ISO 15163:2012
Milk and milk products – Calf rennet and adult bovine rennet – Determination by chromatography of chymosin and bovin pepsin contents

ZWS ISO 15174:2012
Milk and milk products – Microbial coagulants – Determination of total milk-clotting activity

ZWS ISO/TS 17193:2012
Milk – Determination of the lactoperoxidase activity – Photometric method (Reference Method)

ZWS ISO 17792:2006
Milk, milk products and mesophilic starter cultures – Enumeration of citrate-fermenting lactic acid bacteria – Colony count technique at 25^0C

ZWS ISO 18252:2009
Anhydrous milk fat – Determination of sterol composition by gas liquid chromatography (Routine Method)

ZWS ISO 20541:2011
Milk and milk products – Determination of nirate content – Method by enzymatic reduction and molecular absorption spectrometry after Griess reaction

ZWS ISO 22662:2009
Milk and milk products – Determination of lactose content by high-performance liquid chromatograph (Reference Method)

ZWS ISO 22935.3:2009
Milk and milk products – Sensory analysis – Guidance on a method for evaluation of compliance with products specifications for sensory properties by scoring

ZWS ISO 27105:2016
Milk and cheese – Determination of hen's egg white lysozyme content by high performance liquid chromatography

67.100.10 Milk and processed milk products

ARS ZW HS 1072:2026
Blend of skimmed milk and vegetable fat in powdered form

ZWS ISO 450:2005
Milk fat products

ZWS ISO 707:2008
Milk and milk products – Guidance on sampling

ZWS 782:2003
Pasteurized milk and pasteurized homogenized milk

ZWS 787:2003
Skimmed milk powder

ZWS 788:2003
Whole milk powder

ZWS 789:2003
Sterilized milk

ZWS 790:2003
Ultra-high temperature milk

ZWS 792:2003
Yoghurt and sweetened yoghurt

ZWS 793:2003
Flavoured yoghurt and products heat-treated after fermentation

ZWS794:2004
Cultured milk

ZWS 831:2003
Cream powder

ZWS 988:2015
Milk fat products

ZWS ISO 1211:2002
Milk – Determination of fat content – Gravimetric method (reference method)

ZWS ISO 1736:2009
Dried milk and dried milk products – Determination of fat content – Gravimetric method (reference method)

ZWS ISO 1737:2002
Evaporated milk and sweetened condensed milk – Determination of fat content

ZWS ISO 1740:2005
Milkfat products and butter – Determination of fat acidity (Reference method)

ZWS ISO 2450:2001
Cream – Determination of fat content – Gravimetric method (Reference method)

ZWS ISO 2911:2005
Sweetened and condensed milk – Determination of sucrose content – Polarmertic method

ZWS ISO 3356 and IDF 63:2009
Milk — Determination of alkaline phosphatase

ZWS ISO 5534/IDF 4:2004
Cheese and processed cheese — Determination of the total solids content (Reference method)

ZWS ISO 488:2008
Milk determination of fat content – Gerber butyrometers

ZWS ISO 2446:2008
Milk determination of fat content

ZWS ISO 9231:2008
Milk and milk products – Determination of benzoic and forbic acid contents

ZWS ISO 5542:2002
Milk – Determination of protein content – Amino black (dye binding method (Routine method)

ZWS ISO 5739:2005
Caseins caseinates – Determination of scorched particles content and extraneous matter

ZWS ISO 6091/IDF 86:2010
Dried milk – Determination of titratable acidity (Reference method)

ZWS ISO 6610:2001
Milk and milk products – Enumeration of colony-forming units of micro-organisms – Colony count technique at 30^0 C

ZWS ISO 6611:2005
Milk and milk products – Enumeration of yeast and moulds – Colony count technique

ZWS ISO 6730:2006
Milk enumeration of colony forming units of psychrotrophic microorganisms – colony – count technique of 6.5^0C

ZWS ISO 6731/IDF 21:2010
Milk, cream and evaporated milk — Determination of total solids content (Reference method)

ZWS ISO 6734:2005
Sweetened condensed milk – Determination of total solids content (Reference method)

ZWS ISO 8069:2006
Dried milk – Determination of content of lactic acid and lactates

ZWS ISO 8156:2005
Dried milk and dried milk products – Determination of insolubility index

ZWS ISO 8196:2009
Milk – Definition and evaluation of the overall accuracy of alternative methods of milk analysis

ZWS ISO 1857:2007
Milk – Determination of total milk – clotting activity of Bovine Rennets

ZWS ISO 11816:2007
Milk and milk Products – Determination of Alkaline phosphatase activity

ZWS ISO 8870:2009
Milk and milk based products – Detection of thermonuclease produced by coagulase positive staphylococci

ZWS ISO 8967:2006
Dried milk and dried milk products – Determination of bulk density

ZWS ISO 9874:2009
Milk – Determination of total phosphorus content – Method using molecular absorption spectrometry

ZWS ISO 11816
Milk and milk products – Determination of alkaline phosphatase activity. Part 1:2013 Fluorimetric method for milk and milk based drinks.

ZWS ISO 11816
Milk and milk products – Determination of alkaline phosphatase activity. Part 2:2016 Fluorimetric method for cheese

ZWS ISO 11866:2006
Milk and milk products – Enumeration of presumptive *escherichia coli*

ZWS ISO 12078:2007
Anhydrous milk fat – Determination of sterol composition by gas liquid chromatography (reference method)

ZWS ISO 13366:2009
Milk – enumeration of somatic cells

ZWS ISO/TS 17758:2014
Instant dried milk – Determination of the dispersibility and wettability

ZWS ISO 19344| IDF 232:2015
Milk and milk products – Starter cultures, probiotics and fermented products – Quantification of lactic acid bacteria by flow cytometry

ZWS ISO 22160:2007
Milk and milk based drinks – Determination of alkaline phosphate activity – enzymatic photo – activated system (EPAS) method

ZWS ISO 20128:2006
Milk products – Enumeration of presumptive lactobacillus acidophilus on a selective medium – Colony count technique at 37^0C

ZWS ISO 21187:2005
Milk – Quantitative determination of bacteriological quality – Guidance for establishing and verifying a conversion relationship between routine method results and anchor method results

ZWS ISO 22935:2009
Milk and milk products – Sensory analysis – General guidance for the recruitment, selection, training and monitoring of assessors

ZWS ISO 26462:2011
Milk – Determination of lactose content – Enzymatic method using difference in pH

ZWS ISO 23058:2006
Milk and milk products – Ovine caprine rennets – Determination of total milk – clotting activity

ZWS ISO 27205:2010
Fermented milk products – Bacterial starter cultures – Standard of identity

COMESA ZWS HS 349:2004
Sweetened condensed milks

67.100.20 Butter

ZWS 798:2003
Butter

ZWS ISO 1738:2001
Butter – Determination of salt content

ZWS ISO 3727:2005
Butter – Determination of moisture non-fat solids and fat contents

ZWS ISO 7238:2005
Butter – determination of pH of the serum potentiometric method

ZWS ISO 27205:2010
Fermented milk products – Bacterial starter cultures – Standard of identity

COMESA ZWS HS 714:2006
Use of dairy terms

67.100.30 Cheese

ARS ZW HS 1050:2026
Camembert cheese

ARS ZW HS 1051:2026
Coulommiers cheese

ARS ZW HS 1052:2026
Danbo cheese

ARS ZW HS 1053:2026
Havarti cheese – Specification

ARS ZW HS 1054:2026
Provolone cheese

ARS ZW HS 1055:2026
Saint-Paulin cheese

ARS ZW HS 1056:2026
Samsø cheese

ARS ZW HS 1073:2026
Cheese

ARS ZW HS 1076:2026
Extra hard grating cheeses

ZWS 800:2003
Cheese

ZWS 802:2004
Edam Cheese

ZWS 803:2004
Parmaesan cheese

ZWS 804:2003
Cottage cheese and cream

ZWS 805:2004
Hard cheese

ZWS ISO 1854:2009
Whey cheese – Determination of fat content – Gravimetric method

ZWS ISO 3432:2008
Cheese – determination of fat content butyrometer for Van Gulik method

ZWS ISO 3433:2008
Cheese – Determination of fat content – Van Gulik method

ZWS ISO 9233: Part 1/IDF 140-1:2018
Cheese, cheese rind and processed cheese – Determination of natamycin content
Part 1:2018: Molecular absorption spectrometric method for cheese rind

ZWS ISO 9233: Part 2|IDF 140-2:2018
Cheese, cheese rind and processed cheese – Determination of natamycin content
Part 2:2018: High-performance liquid chromatographic method for cheese, cheese rind and processed cheese

ZWS ISO 1735:2002
Cheese and processed cheese products – Determination of fat content – Gravimetric method (Reference method)

ZWS ISO 5534/IDF 4:2004
Cheese and processed cheese — Determination of the total solids content (Reference method)

ZWS ISO 27871:2011
Cheese and processed cheese – Determination of the nitrogenous fractions

67.100.40 Ice cream and ice cream confectionary

ZWS 796:2003
Ice cream and ice cream mixes

ZWS 797:2003
Cream for direct consumption

ZWS ISO 3728/IDF 70: 2004
Ice-cream and milk ice — Determination of total solids con-tent (Reference method)

ZWS ISO 7328:2009
Milk based ices and ice mixes – Determination of fat – Gravimetric method (Reference method)

67.100.99 Other milk products

ZWS ISO 2450:2011
Cream – Determination of fat content – Gravimetric method (Reference Method)

ZWS ISO 5550:2006
Caseins and caseinates – Determination of moisture content

ZWS ISO 5547:2009
Caseins – Determination of fine acidity (reference method)

ZWS ISO 8381:2009
Milk – based infant foods – Determination of fat content – gravimetric method (reference method)

ZWS ISO/TS 11869:2012
Fermented milks - Determination of titratable acidity – Potentiometric method

ZWS ISO 12779:2011
Lactose – Determination of water content – Karl fischer method

67.120 Meat, meat products and other animal produce
67.120.10 Meat and meat products

ARSO ZW HS 1245:2023
Bovine (beef) meat – Carcasses and cuts

ARSO ZW HS 1246:2023
Bovine (veal) meat – Carcasses and cuts

ARSO ZW HS 1247:2023
Caprine (goat) meat – Carcasses and cuts

ARSO ZW HS 1250:2023
Rabbit meat – Carcasses and cuts

ARS/PAS ZW HS 1261:2026
Edible insects — Edible crickets — Specification

ARS/TR ZW HS 1291:2026
Edible insects' products - Specification

ARS/PAS ZW HS 1292:2026
Edible insects — Good farming and wild harvesting practices

ARS/TR ZW HS 1293:2026
Insect products for animal feeds — Code of good practice in production, processing and use in animal feeding

ZWS 111:1974
Canned meat products

ZWS 265:1993
Open pack meat products

ZWS 706:2001
Canned ox tongue in gelatine and stewed steak in gravy

ZWS 720:2003
Meat and meat products – Determination of nitrates and nitrites – Xylenol method

ZWS 721:2001
Meat and meat products – Determination of nitrogen and protein – Block digestion method

ZWS ISO 1442:2023
Meat and meat products — Determination of moisture content — Reference method

ZWS ISO 1443:1998
Meat and meat products – Determination of total fat content

ZWS ISO 1841:1998
Meat and meat products – Determination of chloride content

ZWS ISO 2294:1998
Meat and meat products – Determination of total phosphorus content (reference method)

ZWS ISO 5554:1998
Meat and meat products – Determination of starch content (reference method)

67.120.20 Poultry and eggs

ARSO ZW HS 1199:2023
Edible hen eggs-in-shell

ARSO ZW HS 1200:2023
Eggs-in-shell for processing – Specification

ARSO ZW HS 1203:2023
Hen egg products — Specification

ARSO ZW HS 1205:2023
Egg powder

ARSO ZW HS 1216:2023
Chicken essence

ARSO ZW HS 1217:2023
Ante-mortem and post-mortem inspection of poultry

ARSO ZW HS 1218:2023
Handling, processing, quality evaluation, storage, and trans-portation of poultry and poultry products

ARS ZW HS 1219:2024
Poultry — Glossary of terms

ARSO ZW HS 1224:2023
Chicken meat – Carcasses and cuts

ARS ZW HS 1225:2025
Turkey meat – Carcases and cuts - Specification

ARSO ZW HS 1226:2023
Duck meat – Carcasses and cuts

ARSO ZW HS 1242:2023
Goose meat – Carcasses and cuts

COMESA ZWS HS 640:2005
Processed meat and poultry products

67.120.30 Fish and fishery products

SADC ZWS HS 79:2017
Dried Fresh Water Small Pelagics

SADC ZW HS 80:2017
Farmed tilapia (bream)

SADC ZW HS 87:2017
Crackers from marine and fresh fish,crustacean and molluscan shellfish

SADC ZW HS 81:2017
Fresh and frozen whole fin fish

SADC ZW HS 83:2017
General standards for quick frozen fish fillets

SADC ZW HS 78:2017
Canned sardines and sardine –type products

ZWS 759:2001
Dried-salted fish

SADC ARS HS 82:2017
Fresh and Chilled Fish

ZWS ARS HS 84:2017
Smoked Finfish, Smoke-Flavored Finfish and Smoke-Dried Finfish

ZWS ARS HS 86:2017
Fish Sausages

ZWS ARS HS 88:2017
Good Aquaculture Practices – Bream Farm

ARS ZWS HT 1110: Part 1:2024
Dried small sardine and sardine-type pelagic fish
Part 1:2024: Freshwater

ARS ZWS HT 1110: Part 2:2024
Dried small sardine and sardine-type pelagic fish
Part 2: 2024: Dried anchovies

ARS ZWS HT 1110: Part 3:2024
Dried small sardine and sardine-type pelagic fish
Part 3: 2024: Boiled, salted, and dried anchovies

ARS ZW HS 1113:2026
Frozen octopus

ARS ZW HS 1114:2026
Frozen tuna loins

ARS ZW HS 1120: Part 1:2026
Fresh and frozen finfish
Part 1: 2026: Whole fish

ARS ZW HS 1132: Part 9:2026
Test methods for fish and fishery products
Part 9: Determination of Histamine in fish and fishery products

ARS ZW HS 1157:2026
Frozen frog legs

ARS ZW HS 1158:2026
Shark liver oil for veterinary use

ARS ZW HS 1159:2026
Frozen lobster tails

ARS ZW HS 1160:2026
Tuna/Bonito canned in oil

ARS ZW HS 1172:2026
Edible Fish Powder

ARS ZW HS 1175:2026
Frozen Minced Fish Meat

ARS ZW HS 1177:2026
Beche-de-mer (Sea Cucumber) – Specification

ARS ZW HS 1181:2026
Fish processing industry -Water and ice requirements

ARS ZW HS 1183: Part 1:2026
Code of hygienic conditions for fish industry
Part 1: Pre-processing stages

ARS ZW HS 1183: Part 2:2026
Code of hygienic conditions for fish industry
Part 2: Canning stage

ARS ZW HS 1184:2026
Fresh, frozen and canned mackerel

ARS ZW HS 1185:2026
Fresh and frozen threadfin fish — Specification

ARS ZW HS 1186:2026
Accelerated freeze dried prawns/shrimps — Specification

ARS ZW HS 1795:2026
Fishing vessels — Guidelines for construction and use

ARS ZW HS 1809:2026
Catfish Farming- Good Aquaculture Practices

ARS ZW HS 1912:2026
Farmed freshwater fish — Specification

ARS ZW HS 1913:2026
Fresh and chilled fish — Specification

ARS TR ZW HS 2054:2026
Insect value-added products — Procedures, hygiene, quality, safety, environmental concerns standards for commercialization

ZWS ARS ISO 12875:2011
Traceability of finfish products — Specification on the information to be recorded in captured finfish distribution chains

ZWS ARS ISO 12877:2011
Traceability of finfish products - Specification on the in-formation to be recorded in farmed finfish distribution chains

ZWS ARS ISO 16488:2015
Marine finfish Farms - Open net cage — Design and operation

ZWS ARS ISO 16541:2015
Methods for sea lice surveillance on marine finfish farms

ZWS ARS ISO 16741:2015
Traceability of crustacean products — Specifications on the information to be recorded in farmed Crustacean distribution chains

ZWS ARS ISO 18537:2015
Traceability of crustacean products — Specifications on the information to be recorded in captured crustacean distribution chains

ZWS ARS ISO 18538:2015
Traceability of molluscan products — Specifications on the information to be recorded in farmed molluscan distribution chains

ZWS ARS ISO 18539:2015
Traceability of Molluscan products — Specifications on the information to be recorded in captured molluscan distribution chains

ZWS ARS ISO 22948:2020
Carbon footprint for seafood — Product category rules (CFP–PCR) for finfish

COMESA ZWS HS 412:2004
Quick frozen fish fillets

COMESA ZWS HS 413:2004
Quick frozen sticks (fish fingers), fish portions and fish fillets – Breaded or in batter

COMESA ZWS HS 415:2004
Quick frozen blocks of fish fillets, minced fish flesh and mixtures of fillets and minced fish flesh

COMESA ZWS HS 416:2004
Quick frozen shrimps and prawns

COMESA ZWS HS 419:2004
Canned tuna and bonito

SADC ZWS HS 911:2003
Frozen lobster and frozen lobster products

SADC ZWS HS 912:2003
Frozen shrimps (prawns) langoustines and crabs

67.140.10 Tea

ZWS ISO 3103:2019
Tea - Preparation of liquor for use in sensory tests

ZWS ISO 3720:2003
Tea – Definitions and basic requirements

ZWS ISO 1572:2003
Tea – Preparation of ground sample of unknown dry mattes content

ZWS ISO 1573:2003
Tea – determination of loss in mass at 103^0 C

ZWS ISO 1575:2003
Tea – Determination of total ash

ZWS ISO 1576:2003
Tea – Determination of water-soluble ash and water-insoluble ash

ZWS ISO 1577:2003
Tea – Determination of acid insoluble ash

ZWS ISO 1578:2003
Tea – Determination of alkalinity of water – soluble ash

ZWS ISO 1839:2003
Tea – Sampling

ZWS ISO 6078:2003
Black tea – vocabulary

ZWS ISO 6079:2003
Instant tea in solid form

ZWS ISO 6770:2003
Instant tea – Determination of free-flow and compacted bulk densities

ZWS ISO 7513:2003
Instant tea in solid form – Determination of moisture content (loss in mass at 103 C

ZWS ISO 7514:2003
Instant tea in solid form – Determination of total ash

ZWS ISO 7516:2003
Instant tea in solid form – Sampling

ZWS ISO 9768:2003
Tea – Determination of water extract

ZWS ISO 9884:2003
Tea sacks

ZWS ISO 10727:2003
Tea and instant tea in solid form – Determination of caffeine content – Method using high performance liquid chromatography

ZWS ISO 11286:2003
Tea – Classification of grades by particle size analysis

ZWS ISO 15598:2003
Tea – Determination of crude fibre content

ARS ZW HS 1000: Part 1:2021
Sustainable cocoa **— Part 1:** Requirements for Cocoa Farmer as an Entity/Farmer Group/ Farmer Cooperative — Management systems and Performance

ARS ZW HS: Part 2:2021
Sustainable cocoa —
Part 2: Requirements for Cocoa Quality and Traceability

ARS ZW HS: Part 3:2021
Sustainable Cocoa –
Part 3: Requirements for Cocoa Certification Schemes

67.160 Beverages
67.160.10 Alcoholic beverages

ZWS 851:2002
Cane spirit and vodka

ZWS 1108:2023
London dry gin

ZWS1122:2024
Kombucha

67.160.20 Non-alcoholic beverages

ZWS 1069:1994
Canned tomato juice, canned tomato juice cocktail and canned tomato cocktail

ZWS 1070:1999
Canned orange juice and canned grapefruit juice

ZWS 348:2007
Soft drinks

ZWS 352:2002
Fruit squashes and fruit cordials (fruit syrups) and their bases

ZWS 396:1994
Orange juice preserved exclusively by physical means

ZWS 397:1994
Pineapple juice preserved exclusively by physical means

ZWS 398:1994
Apple juice preserved exclusively by physical means

ZWS 399:1994
Grape juice preserved exclusively by physical means

ZWS 470:1994
Guava nectar preserved exclusively by physical means

ZWS 471:1994
Grapefruit juice preserved exclusively by physical means

ZWS 472:1994
Lemon juice preserved exclusively by physical means

ZWS 475:1994
Granadilla juice preserved exclusively by physical means

ZWS 999:2023
Mahewu

67.180 Sugar, sugar products. Starch
67.180.10 Sugar and sugar products

ZWS 394:1993
Golden syrup, flavoured syrup and treacle

ZWS 559:1999
Refined sugar for household use

ZWS 647:1999
Refined sugar – Determination of polarization by polarimetry

ZWS 707:1999
Refined sugar – Determination of colour and turbidity

ZWS 708:1999
Refined sugar – Determination of grain size

ZWS 1088:1985
Jelly powders

ZWS 1090:1999
Icing sugar

SADC ZWS HT 108:2022
Honey

67 .180.20 Starch and derived products

ZWS 244:1994
Corn starches

ZWS 461:1994
Starches – Determination of moisture content – Oven-drying method

ZWS 462:1994
Starches – Determination of ash

ZWS 463:1994
Starches – native (unmodified) or modified – Determination of total fat content

ZWS 466:1994
Starches and derived products – Determination of nitrogen and protein content by the Kjeldahl method – Titrimetric method

67.200 Edible oils and fats, oil seeds

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Peanut butter

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Vegetable Oils

COMESA ZWS HS 876:2005
Margarine

67.220 Spices and condiments, food additives

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Mayonnaise, salad cream or dressing and sandwich spread

67.220.10 Spices and condiments

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ZWS 365:1993
Whole spices – Determination of extraneous matter content

ZWS 366:1993
Spices and condiments – Determination of total ash

ZWS 367:1993
Spices and condiments – Determination of water-insoluble ash

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ZWS 369:1993
Spices and condiments – Determination of alcohol-soluble extract

ZWS 370:1993
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ZWS 372:1993
Spices and condiments – Preparation of a ground sample for analysis

ZWS 374:1993
Black pepper and white pepper, whole or ground- Determination of piperine content – Spectrophotometric method

ZWS 376:1993
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ZWS 377:1993
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ZWS 378:1993
Spices and condiments – Determination of acid-insoluble ash

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ZWS 380:1995
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ZWS 381:1996
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67.220.20 Food additives

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Salt – Determination of pH and total alkalinity

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Salt – determination of iron content

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Salt – Determination of anti-caking additives content of salt for food use

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Salt – Determination of arsenic – silver diethydithiocarbamate photometric method

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Salt – Determination of total iodine – Titrimetric method with sodium thiosulfate

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Salt – Determination of matter insoluble in water or in acid and preparation of principal solutions for other determinations

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Salt – Determination of sulfate content – Barium sulfate gravimetric method

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Salt – determination of calcium and magnesium contents – EDTA complexometric methods

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Salt – Determination of moisture content

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Gravy Powder

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Ready-to-eat samoosas

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Processed cereal-based foods for infants and children

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Nutritional labelling – Requirements

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Claims on food - General requirements

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71.040 Analytical chemistry

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Laboratory glassware

71.040.10 Chemical laboratories, laboratory equipment

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Electrically-heated laboratory drying ovens

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71.040.30 Chemical reagents

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71.040.40 Chemical analysis

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Gas analysis – Vocabulary

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71.100 Products of the chemical industry
71.100.20 Gases for industrial application

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Liquid carbon dioxide (industrial)

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Compressed and Liquid Oxygen for industrial use

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71.100.35 Chemicals for industrial and domestic disinfection purposes

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Disinfectants/sanitizers based on iodophors – Specification

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Cleaning efficiency of high-foam laundry detergents

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laundry detergents

71.100.40 Surface active agents

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71.100.50 Wood processing chemicals

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High-temperature wood-preserving creosote

71.100.70 Cosmetics

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Cosmetics – Good manufacturing practices (GMP) – Guidelines on good manufacturing practices

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73 Mining and minerals

73.020 Mining and quarrying

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73.120 Equipment for processing of minerals

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75 Petroleum and related technologies
75.080 Petroleum products in general

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Determination of flash point – Closed cup equilibrium method

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ZWS 135:1975
Chassis lubricating grease

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Lithium-base lubricating grease

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Calcium-base lubricating grease

75.120 Hydraulic fluids

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Hydraulic brake fluids

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Petroleum jelly – Determination of arsenic content – Gutzeit method

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75.160.20 Liquid fuels

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75.180.30 Volumetric equipment and measurements

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77.040 Testing of materials

77.040.10 Mechanical testing of metals

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Metallic Materials – Hardness test – Vickers test

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77.060 Corrosion of metals

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Corrosion tests in artificial atmosphers – Salt sprays tests

77.080 Ferrous metals

77.080.01 Ferrous metals in general

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77.080.20 Steels

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77.120 Non-ferrous metals

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77.140 Iron and steel products

77.140.01 Iron and steel products in general

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77.140.15 Steels for reinforcement of concrete

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Part 3: Quenched and tempered wire

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77.140.60 Steel bars and rods

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77.140.65 Steel wire, wire ropes and link chains

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Silver-plated copperware

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79 Wood technology
79.020 Wood technology processes

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The manufacture of finger-jointed structural timber

ZWS 218:1992
The mechanical stress grading of softwood timber – Flexural method

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The preservative treatment of timber

79.040 Wood, saw logs and sawn timber

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Softwood flooring boards (metric units)

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Solid and laminated softwood timber scaffold planks

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Softwood studs for timber frames in buildings

ZWS 257:2010
Sawn softwood timber

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Structural timber
Part 5-1: Stress-grade (Assessment)

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Part 5-2: Quality assurance of stress grading

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Part 8: Determination of ultimate strength in shearing parallel to grain

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Part 10: Determination of impact bending strength

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Part 11: Determination of resistance to impact Indentation

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Part 12: Determination of static hardness

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Part 13: Determination of radial and tangential shrinkage

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Physical and mechanical properties of wood - Test methods for small clear wood specimens
Part 14: Determination of volumetric shrinkage

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Part 15: Determination of radial and tangential swelling

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Part 16: Determination of volumetric swelling

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Part 17: Determination of ultimate stress in compression parallel to grain

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Timber — Round and sawn timber — Vocabulary

79.060 Wood-based panels

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ZWS 929:2012
Fibreboard products – Uncoated fibreboards

79.060.01 Wood based panels in general

ZW 130:2010
Plywood and composite board

ZWS 935:2012
Edge straightness of wooden board products

ZWS 936:2012
Flatness of wooden board products
ZWS 937:2012
Timber based board products – Squareness

ZWS 939:2012
Fibreboard – Determination of lateral nail holding strength

ZWS 958:2012
Fibreboard – Determination of transverse internal bond strength

79.060.10 Plywood

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Plywood and composite board

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Chipboard

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Fibreboard products – Coated fibreboards

ZWS 930:2012
Fibreboard – Measurement of dimensions of test specimens

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Insulation board – Determination of bitumen content

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79.080 Semi-manufacture of timber

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Hardwood block and strip flooring

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Eucalyptus poles, cross-arms and spacers for power distribution and communications systems

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Laminated timber (glulam)

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Wood mosaic flooring

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Mixtures of CCA compounds for timber preservatives

ZWS 1014:2023
Preservative-treated timber

81 Glass and ceramics industry

81.040 Glass

ZWS 181:1992
Mirrors

81.040.20 Glass in building

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Code of practice for glazing in buildings

81.080 Refractories/ Bricks

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Methods for sampling and testing of aggregates and fillers

ZWS 233:2025
Aggregates from natural sources for concrete

ZWS 319:1989
Sandlime bricks

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Burnt clay paving units

ZWS 733:2000
Shaped refractory bricks

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Refractory bricks – Determination of dimensions

ZWS 736:2000
Refractory bricks – Determination of warpage and squareness

ZWS 737:2000
Refractory bricks - Determination of relative density

ZWS 738:2000
Refractory bricks – Determination of bulk density, bulk volume, apparent porosity and apparent density

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Refractory bricks – Determination of the pyrometric cone equivalent (refractoriness)

ZWS 740:2000
Shaped refractory bricks – Determination of permanent change in dimensions on heating

ZWS 741:2000
Shaped refractory bricks – Determination of cold crushing strength

83 Rubber and plastics industries

83.060 Rubber

ZWS ISO 188:2008
Rubber, vulcanized or thermoplastic – accelerated ageing and heat resistance tests

83.080 Plastics

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Plastics – Determination of the mass-flow rate (MFR) and the meet-flow rate (MVR) of thermoplastics

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Plastic – Film sheeting - Determination of thickness by mechanical scanning

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Plastics - Guidelines for the recovery and recycling of plastics waste

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Plastics – Determination of tensile properties

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Hard rubber chopping blocks

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Matrices for tyre reconditioning

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