Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-12083-01-04 according to DIN EN ISO/IEC 17025:2018

Valid from: **02.12.2025**

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This annex is part of the Accreditation Certificate D-PL-12083-01-00.

Holder of the Accreditation Certificate:

Hohenstein Laboratories GmbH & Co. KG
Schloss Hohenstein, 74357 Bönnigheim

with the location

Hohenstein Laboratories GmbH & Co. KG
Schloss Hohenstein, 74357 Bönnigheim

The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories and they conform to the principles of DIN EN ISO 9001.

Tests in the fields:

Tests on fibers, yarns, fabrics and clothing in the field of textile technology and textile chemistry; Physiological and electrostatic tests of textile, clothing systems, bedding materials, sleeping bags, motor vehicle seats and upholstery; Spectrophotometric tests of two-dimensional materials (textile, paper, films, lacquers) – colorimetric, whiteness evaluation, textile UV protection; Fit and workmanship tests of clothing and ready-made textiles in new condition and after care treatment

Flexible Scope of Accreditation:

Within the indicated test areas the testing laboratory is permitted without being required to prior inform and obtain approval from DAkkS

[Flex A] to use standardised or equivalent test methods listed here with different issue dates.

[Flex B] to have the free choice from standardised or equivalent test methods.

[Flex C] to modify, develop or further develop test methods.

The test methods listed are examples. The testing laboratory has an up-to-date list of all test methods within the flexible scope of accreditation. The list is publicly available on the website of the testing laboratory.

Content

1 Textile technology test

1.1 Determination of colour fastness of textiles and plastics by simple visual examination [Flex B]

DIN 53160 2023-07	Determination of the colour resilience of articles for common use – Test with saliva and perspiration simulants
DIN 54034 2018-04	Testing of colour fastness of textiles – Determination of colour fastness of dyeings and prints to bleaching: Hypochlorite (mild)
DIN 54056 2017-11	Testing of colour fastness of textiles – Determination of colour fastness of dyeings and prints to sublimation in storage
DIN EN 20105-A02 1994-10	Textiles – Test for colour fastness – Part A02: Grey scale for assessing change in colour
DIN EN 20105-N01 1995-03	Textiles – Tests for colour fastness – Part N01: Colour fastness to bleaching: Hypochlorite
DIN EN ISO 105-A01 2010-05	Textiles – Tests for colour fastness – Part A01: General principles of testing
DIN EN ISO 105-A03 2020-02	Textiles – Tests for colour fastness – Part A03: Grey scale for assessing staining
DIN EN ISO 105-A04 1999-10	Textiles – Tests for colour fastness – Part A04: Method for the instrumental assessment of the degree of staining of adjacent fabrics
DIN EN ISO 105-B02 2014-11	Textiles – Tests for colour fastness – Part B02: Colour fastness to artificial light: Xenon arc fading lamp test
DIN EN ISO 105-B04 2024-06	Textiles – Tests for colour fastness – Part B04: Colour fastness to artificial weathering: Xenon arc fading lamp test

DIN EN ISO 105-B05 1995-12	Textiles – Tests for colour fastness – Part B05: Detection and assessment of photochromism
DIN EN ISO 105-B07 2009-10	Textiles – Tests for colour fastness – Part B07: Colour fastness to light of textiles wetted with artificial perspiration
DIN EN ISO 105-C06 2010-08	Textiles – Tests for colour fastness – Part C06: Colour fastness to domestic and commercial laundering
DIN EN ISO 105-C08 2010-08	Textiles – Tests for colour fastness – Part C08: Colour fastness to domestic and commercial laundering using a non-phosphate reference detergent incorporating a low-temperature bleach activator
DIN EN ISO 105-C10 2007-06	Textiles – Tests for colour fastness – Part C10: Colour fastness to washing with soap or soap and soda
DIN EN ISO 105-D01 2010-10	Textiles – Tests for colour fastness – Part D01: Colour fastness to dry cleaning using perchloroethylene solvent
DIN EN ISO 105-E01 2013-06	Textiles – Tests for colour fastness – Part E01: Colour fastness to water
DIN EN ISO 105-E02 2013-06	Textiles – Tests for colour fastness – Part E02: Colour fastness to sea water
DIN EN ISO 105-E03 2010-08	Textiles – Tests for colour fastness – Part E03: Colour fastness to chlorinated water (swimming-pool water)

DIN EN ISO 105-E04 2013-08	Textiles – Tests for colour fastness – Part E04: Colour fastness to perspiration
DIN EN ISO 105-E06 2006-10	Textiles – Tests for colour fastness – Part E06: Colour fastness to spotting: Alkali
DIN EN ISO 105-E07 2010-08	Textiles – Tests for colour fastness – Part E07: Colour fastness to spotting: Water
DIN EN ISO 105-N02 2018-12	Textiles – Tests for colour fastness – Part N02: Colour fastness to bleaching: Peroxide
DIN EN ISO 105-P01 1995-04	Textiles – Tests for colour fastness – Part P01: Colour fastness to dry heat
DIN EN ISO 105-X05 1997-05	Textiles – Tests for colour fastness – Part X05: Colour fastness to organic solvents
DIN EN ISO 105-X11 1996-10	Textiles – Tests for colour fastness – Part X11: Colour fastness to hot pressing
DIN EN ISO 105-X12 2016-11	Textiles – Tests for colour fastness – Part X12: Colour fastness to rubbing
DIN EN ISO 11640 2018-11	Leather – Tests for colour fastness – Colour fastness to cycles of to-and-fro rubbing
DIN EN ISO 11641 2013-02	Leather – Tests for colour fastness – Colour fastness to perspiration
DIN EN ISO 11642 2013-02	Leather – Tests for colour fastness – Colour fastness to water

DIN EN ISO 11643 2009-10	Leather – Tests for colour fastness – Colour fastness of small samples to solvents
DIN EN ISO 4892-2 2021-11	Plastics – Methods of exposure to laboratory light sources – Part 2: Xenon-arc lamps
DIN EN ISO 15700 1999-10	Leather – Tests for colour fastness – Colour fastness to water spotting
DIN EN ISO 17700 2020-01	Footwear – Test methods for upper components and insocks – Colour fastness to rubbing and bleeding Method A

1.2 Determination of colour fastness of textiles by spectrophotometry [Flex B]

DIN EN ISO 105-A05 1997-07	Textiles – Tests for colour fastness – Part A05: Instrumental assessment of change in colour for determination of grey scale rating

1.3 Textile-physical tests on textiles

1.3.1 Determination of surface appearance of textiles by simple visual examination [Flex B]

DIN EN ISO 4920 2012-12	Textile fabrics – Determination of resistance to surface wetting (spray test)
DIN EN ISO 12945-1 2021-04	Textiles – Determination of fabric propensity to surface pilling, fuzzing or matting – Part 1: Pilling box method
DIN EN ISO 12945-2 2021-04	Textiles – Determination of fabric propensity to surface pilling, fuzzing or matting – Part 2: Modified Martindale method

DIN EN ISO 12947-2 2017-03	Textiles – Determination of the abrasion resistance of fabrics by the Martindale method – Part 2: Determination of specimen breakdown
DIN EN ISO 12947-3 2007-04	Textiles – Determination of abrasion resistance of fabrics by the Martindale method – Part 3: Determination of mass loss
DIN EN ISO 12947-4 2007-04	Textiles – Determination of abrasion resistance of fabrics by the Martindale method – Part 4: Assessment of appearance change
DIN EN ISO 14419 2010-08	Textiles – Oil repellency – Hydrocarbon resistance test
DIN EN ISO 15487 2018-12	Textiles – Method for assessing appearance of apparel and other textile end products after domestic washing and drying
AATCC TM 22 2017	Test Method for Water Repellency: Spray
AATCC TM 118 2020	Test Method for Oil Repellency: Hydrocarbon Resistance
AATCC TM 193 2007(2017)	Test Method for Aqueous Liquid Repellency: Water/Alcohol Solution Resistance Test
ASTM D4966-22 2022	Standard Test Method for Abrasion Resistance of Textile Fabrics (Martindale Abrasion Tester Method)

1.3.2 Determination of resistance to hydrostatic pressure of textiles by simple visual examination [Flex B]

DIN EN ISO 811 2018-08	Textiles – Determination of resistance to water penetration – Hydrostatic pressure test

1.3.3 Determination of construction features of textiles by means of simple visual examination [Flex B]

DIN EN 1049-2 1994-02	Textiles; Woven fabrics; Construction-Methods of analysis; Part 2: Determination of number of threads per unit length
DIN EN 14971 2006-04	Textiles – Knitted fabrics – Determination of number of stitches per unit length and unit area

1.3.4 Determination of construction features of textiles by angle measurement [Flex B]

DIN EN ISO 2313-1 2021-09	Textiles – Determination of the recovery from creasing of a folded specimen of fabric by measuring the angle of recovery – Part 1: Method of the horizontally folded specimen

1.3.5 Determination of construction features of textiles by length measurement [Flex B]

DIN EN 1773 1997-03	Textiles – Fabrics – Determination of width and length
DIN EN ISO 137 2016-09	Wool – Determination of fibre diameter – Projection microscope method
DIN EN ISO 2061 2015-12	Textiles – Determination of twist in yarns – Direct counting method
DIN EN ISO 5084 1996-10	Textiles – Determination of thickness of textiles and textile products
DIN EN ISO 9073-2 1997-02	Textiles – Test methods for nonwovens – Part 2: Determination of thickness
DIN EN ISO 2286-3 2017-01	Rubber- or plastics-coated fabrics – Determination of roll characteristics – Part 3: Method for determination of thickness

1.3.6 Determination of abrasion property of textiles by gravimetry [Flex B]

DIN EN ISO 12947-3 2007-04	Textiles – Determination of abrasion resistance of fabrics by the Martindale method – Part 3: Determination of mass loss
DIN EN ISO 4484-1 2023-05	Textiles and textile products – Microplastics from textile sources – Part 1: Determination of material loss from fabrics during washing

1.3.7 Determination of mass of textiles and nonwovens by gravimetry [Flex B]

DIN EN 12127 1997-12	Textiles – Fabrics – Determination of mass per unit area using small samples
DIN EN ISO 9073-1 2023-09	Nonwovens – Test methods – Part 1: Determination of mass per unit area

1.3.8 Determination of linear density of textile yarn structures by gravimetry [Flex B]

DIN 53830-3 1981-05	Testing of textiles; determination of linear density of single and plied yarns; simple yarns and plied yarns, textured yarns, short length method
DIN EN ISO 2060 1995-04	Textiles – Yarn from packages – Determination of linear density (mass per unit length) by the skein method

1.3.9 Determination of dimensional change of textiles by length measurement [Flex B]

DIN EN ISO 3759 2011-08	Textiles – Preparation, marking and measuring of fabric specimens and garments in tests for determination of dimensional change
DIN EN ISO 5077 2008-04	Textiles – Determination of dimensional change in washing and drying

1.3.10 Determination of absorption properties of textiles by gravimetry [Flex B]

DIN EN 29865 1993-11	Textiles; determination of water-repellency of fabrics by the Bundesmann rain-shower test

1.3.11 Determination of air permeability of textiles and nonwovens by volume flow measurement [Flex B]

DIN EN ISO 9237 1995-12	Textiles – Determination of permeability of fabrics to air
ASTM D737-18 2023	Standard Test Method for Air Permeability of Textile Fabrics

1.3.12 Determination of tensile properties of textiles and nonwovens by force measurement [Flex C]

DIN 53859-5 1992-12	Testing of textiles – tear growth test on textile fabrics – trapezoid test
DIN EN 15598 2008-11	Textiles – Terry fabrics – Test method for the determination of the resistance to pile loop extraction
DIN EN ISO 3376 2020-08	Leather – Physical and mechanical tests – Determination of tensile strength and percentage elongation
DIN EN ISO 3377-1 2012-03	Leather – Physical and mechanical tests – Determination of tear load – Part 1: Single edge tear
DIN EN ISO 9073-4 2021-05	Nonwovens – Test methods – Part 4: Determination of tear resistance by the trapezoid procedure

DIN EN ISO 13934-1 2013-08	Textiles – Tensile properties of fabrics – Part 1: Determination of maximum force and elongation at maximum force using the strip method
DIN EN ISO 13934-2 2014-06	Textiles – Tensile properties of fabrics – Part 2: Determination of maximum force using the grab method
DIN EN ISO 13935-1 2014-07	Textiles – Seam tensile properties of fabrics and made-up textile articles – Part 1: Determination of maximum force to seam rupture using the strip method
DIN EN ISO 13935-2 2014-07	Textiles – Seam tensile properties of fabrics and made-up textile articles – Part 2: Determination of maximum force to seam rupture using the grab method
DIN EN ISO 13936-1 2004-07	Textiles – Determination of the slippage resistance of yarns at a seam in woven fabrics – Part 1: Fixed seam opening method
DIN EN ISO 13936-2 2004-07	Textiles – Determination of the slippage resistance of yarns at a seam in woven fabrics – Part 2: Fixed load method
DIN EN ISO 13937-1 2000-06	Textiles – Tear properties of fabrics – Part 1: Determination of tear force using ballistic pendulum method (Elmendorf)
DIN EN ISO 13937-2 2000-06	Textiles – Tear properties of fabrics – Part 2: Determination of tear force of trouser-shaped test specimens (single tear method)
DIN EN ISO 13937-3 2000-06	Textiles – Tear properties of fabrics – Part 3: Determination of tear force of wing-shaped test specimens (Single tear method)

DIN EN ISO 13937-4 2000-06	Textiles – Tear properties of fabrics – Part 4: Determination of tear force of tongue-shaped test specimens (Double tear test)
DIN EN ISO 13938-2 2020-03	Textiles – Bursting properties of fabrics – Part 2: Pneumatic method for determination of bursting strength and bursting distension
DIN EN ISO 1421 2017-03	Rubber- or plastics-coated fabrics – Determination of tensile strength and elongation at break
DIN EN 17679 2022-08	Plastics – Plastic films – Determination of tear resistance using a trapezoidal test specimen with incision
DIN EN ISO 2062 2010-04	Textiles – Yarns from packages – Determination of single-end breaking force and elongation at break using constant rate of extension (CRE) tester
DIN EN ISO 20932-1 2022-02	Textiles – Determination of the elasticity of fabrics – Part 1: Strip tests
DIN EN ISO 4674-1 2017-03	Rubber- or plastics-coated fabrics – Determination of tear resistance – Part 1: Constant rate of tear methods
DIN EN ISO 4674-2 2022-02	Rubber- or plastics-coated fabrics – Determination of tear resistance – Part 2: Ballistic pendulum method
DIN EN ISO 9073-3 2023-09	Nonwovens – Test methods – Part 3: Determination of tensile strength and elongation at break using the strip method
ASTM D1683/D1683M-22 2022	Standard Test Method for Failure in Sewn Seams of Woven Fabrics

ASTM D5034-21 2021	Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)
3.DEC.0498 2024-09	Testing of textiles with compressive effect
3.DEC.0499 2024-09	Testing of textiles with compressive effect DIN 58133:2008-07

1.3.13 Determination of performance characteristics of textiles and artificial leather by simulated use [Flex B]

DIN 53359 2006-11	Testing of artificial leather and similar sheet materials – Flex cracking test
DIN EN 1876-1 1998-01	Rubber- or plastics coated fabrics – Low temperatures tests – Part 1: Bending test
DIN EN 12280-3 2002-11	Rubber- or plastic-coated fabrics – Accelerated ageing tests – Part 3: Environmental ageing
DIN EN 14682 2015-03	Safety of children's clothing – Cords and drawstrings on children's clothing – Specifications
DIN EN 14697 2005-08	Textiles – Terry towels and terry towel fabrics – Specification and methods of test
ISO 1419 2019-05	Rubber- or plastics-coated fabrics – Accelerated-ageing tests
ISO 4675 2017-08	Rubber- or plastics-coated fabrics – Low-temperature bend test

1.3.14 Determination of burning behaviour of textiles, toys and interior materials by simple visual examination [Flex B]

DIN EN 1021-2 2014-10	Furniture – Assessment of the ignitability of upholstered furniture – Part 2: Ignition source match flame equivalent
DIN EN 1101 2005-09	Textiles and textile products – Burning behaviour – Curtains and drapes – Detailed procedure to determine the ignitability of vertically oriented specimens (small flame)
DIN EN 1102 2016-10	Textiles and textile products – Burning behaviour – Curtains and drapes – Detailed procedure to determine the flame spread of vertically oriented specimens
DIN EN 1103 2006-03	Textiles – Fabrics for apparel – Detailed procedure to determine the burning behaviour
DIN EN 14878 2007-08	Textiles – Burning behaviour of children's nightwear – Specification
DIN EN ISO 6940 2004-06	Textile fabrics – Burning behaviour – Determination of ease of ignition of vertically oriented specimens
DIN EN ISO 6941 2004-05	Textile fabrics – Burning behaviour – Measurement of flame spread properties of vertically oriented specimens
FMVSS 302 1991-10	Flammability of Interior materials
ASTM D1230-22 2022	Standard Test Method for Flammability of Apparel Textiles
16 CFR Part 1610 2008-10	Standard for the flammability of clothing textiles

16 CFR Part 1615 2010-07	Standards for the flammability of children's sleepwear: size 0 through 6
16 CFR Part 1616 2010-07	Standards for the flammability of children's sleepwear: size 7 through 14

1.3.15 Determination of particles on textiles and articles of common use by simple visual examination [Flex B]

DIN EN ISO 9073-10 2005-03	Textiles – Test methods for nonwovens – Part 10: Lint and other particles generation in the dry state

1.3.16 Determination of bursting properties of textiles by manometric examination [Flex B]

ASTM D3786/D3786M-18 2023	Standard Test Method for Bursting Strength of Textile Fabrics- Diaphragm Bursting Strength Tester Method

1.4 Textile fiber analysis using dynamic image analysis in aqueous medium after washing processes [Flex C]

AATCC TM 212 2021	Test Method for Fiber Fragment Release During Home Laundering
3.DEC.0282 2025-01	Fiber analysis of textiles after simulated washing process (TMC)
3.DEC.0283 2025-01	Fiber analysis of textiles after simulated washing process using dynamic image analysis
3.DEC.0284 2025-01	Textile fiber analysis of water samples using dynamic image analysis

1.5 Determination of overall degradation parameters (CO_2-release) of commodities using aquatic test systems [Flex A]

DIN EN ISO 14851 2019-07	Determination of the ultimate aerobic biodegradability of plastic materials in an aqueous medium – Method by measuring the oxygen demand in a closed respirometer
OECD 301 1992-07	OECD Guideline for Testing of Chemicals

1.6 Determination of water constituents released from commodities using aquatic test systems [Flex A]

DIN EN ISO 20079 2006-12	Determination of the toxic effect of water constituents and waste water on duckweed (Lemna minor) – Duckweed growth inhibition test

2 Examination of the physical properties of textiles and clothing

2.1 Determination of electrostatic properties of protective clothing and clothing using electrode measurement [Flex B]

DIN EN 61340-4-9 2020-06	Electrostatics – Part 4-9: Standard test methods for specific applications – Garments

2.2 Determination of thermal and water vapor resistance of textiles and clothing using electrode measurement [Flex C]

DIN EN ISO 15831 2004-05	Clothing – Physiological effects – Measurement of thermal insulation by means of a thermal manikin
DIN EN ISO 11092 2014-12	Textiles – Physiological effects – Measurement of thermal and water-vapour resistance under steady-state conditions (sweating guarded-hotplate test)

ISO 13029 2012-08	Textiles – Determination of dynamic drying rate of functional textiles
DIN EN ISO 23537-1 2022-10	Requirements for sleeping bags – Part 1: Thermal requirements and dimensions
ASTM F1868-23 2023	Standard Test Method for Thermal and Evaporative Resistance of Clothing Materials Using a Sweating Hot Plate
3.DEC.0600 2024-09	Determination of the thermal insulation of a moist textile with the thermoregulation model of human skin (skin model) (R_{CT}*)

2.3 Determination of mass difference of textiles using gravimetric testing [Flex B]

DIN EN 17534 2023-01	Textiles – Physiological effects – Measurement of liquid sweat transport and buffering
DIN EN ISO 15496 2018-08	Textiles – Measurement of water vapour permeability of textiles for the purpose of quality control

2.4 Determination of textile properties by moisture measurement [Flex C]

3.DEC.0598 2025-01	Determination of the buffering effect of textiles with the thermoregulation model of human skin (skin model) (F_d)

2.5 Determination of textile properties using a force gauge [Flex C]

3.DEC.0601 2025-01	Testing of textiles – Determination of the adhesion index i_K

2.6 Determination of textile properties by time measurement [Flex C]

3.DEC.0602 2025-01	Testing of textiles – Determination of the wetting index i_B

2.7 Determination of textile properties by visual examination [Flex C]

3.DEC.0605 2025-01	Testing textiles – determining the stiffness s

2.8 Determination of slide fastener (zip) properties [Flex A]

DIN EN 16732 2016-05	Slide fasteners (zips) – Specification

2.9 Determination of safety of children's clothing [Flex A]

DIN EN 17394-2 2020-12	Textiles and textile products – Part 2: Safety of children's clothing – Security of attachment of buttons – Test method
DIN CEN/TR 16792; DIN SPEC 60008 2015-11	Safety of children's clothing – Recommendations for the design and manufacture of children's clothing – Mechanical safety
DIN CEN/TS 17394-3 2021-03	Textiles and textile products – Part 3: Safety of children's clothing – Security of attachment of metal mechanically applied press fasteners – Test method

2.10 Determination of the thermal resistance of textiles by temperature measurement [Flex A]

ISO 5085-1 1989-11	Textiles; determination of thermal resistance; Part 1: low thermal resistance

2.11 Determination of the melting behavior of plastics using microscopy [Flex A]

DIN EN ISO 3146 2022-06	Plastics – Determination of melting behaviour (melting temperature or melting range) of semi-crystalline polymers by capillary tube and polarizing-microscope methods

3 Spectrophotometric tests on planar materials (textiles, paper, films, lacquers) – colorimetric, whiteness metric, textile UV protection, UV-, VIS- und IR-ranges

3.1 UV protection [Flex A]

DIN EN 13758-1 2007-03	Textiles – Solar UV protective properties – Part 1: Method of test for apparel fabrics
AATCC TM 183 2020	Test Method for Transmittance or Blocking of Erythemally Weighted Ultraviolet Radiation through Fabrics
AS/NZS 4399 2017	Sun protective clothing – Evaluation and classification
AS 4174 2018	Knitted and woven shade fabrics
Guidebook UV STANDARD 801 2023-09	Determination of the UV protection factor (UPF) of textiles according to UV STANDARD 801

3.2 Measurements in the VIS range (colorimetry and white colorimetry) [Flex A]

DIN 5033-7 2014-10	Colorimetry – Part 7: Measuring conditions for object colours
DIN 5033-8 1982-04	Colorimetry; measuring conditions for light sources
DIN 55981 2022-04	Determination of relative hue of near white specimens
DIN 6176 2018-10	Colorimetric determination of colour differences of object colours according to the DIN99o formula
DIN EN ISO 105-J01 1999-09	Textiles – Tests of colour fastness – Part J01: General principles for measurement or surface colour
DIN EN ISO 105-J03 2010-02	Textiles – Tests for colour fastness – Part J03: Calculation of colour differences

DIN EN ISO 3668 2020-05	Paints and varnishes – Visual comparison of colour of paints
DIN EN ISO/CIE 11664-4 2020-03	Colorimetry – Part 4: CIE 1976 L*a*b* colour space
3.DEC.0619 2025-02	Determination of the visual acceptance of colour differences (pass/fail method)
DIN EN ISO 2813 2015-02	Paints and varnishes – Determination of gloss value at 20°, 60° and 85°

3.3 General measurements in the UV, VIS and IR ranges [Flex C]

DIN 5036-3 1979-11	Radiometric and photometric properties methods of measurement
DIN EN 14500 2021-09	Blinds and shutters – Thermal and visual comfort – Test and calculation methods
DIN EN ISO 13468-2 2022-04	Plastics – Determination of the total luminous transmittance of transparent materials – Part 2: Double-beam instrument
3.DEC.0621 2025-02	Protective effect of textiles against artificial UV radiation
3.DEC.0628 2025-01	Measurements with UV-VIS-NIR spectrometer Cary5000
CIE 38 1977	Radiometric and photometric characteristics of materials and their measurement

4 Clothing technology tests

4.1 Determination of fit of clothing and ready-made textiles by simple visual examination [Flex C]

AS/NZS 4399 2017	Sun protective clothing – Evaluation and classification
3.DEC.0072 2025-02	Test of the processing of ready-made textiles for defects in new condition and after care/situational processing inspection
3.DEC.0073 2025-02	Fit testing of ready-made textiles in new condition and optimization of finished size tables with base
3.DEC.0075 2025-02	Fit inspection of ready-made textiles after care treatment
3.DEC.0078 2025-02	Fit inspection of ready-made textiles in new condition without finished size table/base and creation of a calculation finished size table
3.DEC.0082 2025-02	Forming properties of shapewear
3.DEC.0083 2025-02	Verification of the fit and/or product conformity
3.DEC.0086 2025-02	Revision of the finished dimensions table/report
3.DEC.0087 2025-02	Checking socks according to Nahm Boards

4.2 Determination of safety of children’s clothing by simple visual examination [Flex A]

DIN EN 14682 2015-03	Safety of children's clothing – Cords and drawstrings on children's clothing – Specifications

4.3 Determination of textile labelling for textiles by simple visual examination [Flex C]

3.DEC.0085 2025-02	Verification of textile labelling on the basis of the Textile Labelling Ordinance
DIN EN ISO 3758 2024-04	Textiles – Care labelling code using symbols

4.4 Determination of fit of clothing and ready-made textiles by length measurement [Flex C]

AS/NZS 4399 2017	Sun protective clothing – Evaluation and classification
3.DEC.0071 2025-02	Measurement of test material as a basis for a fit check (without FMT)
3.DEC.0072 2025-02	Test of the processing of ready-made textiles for defects in new condition and after care/situational processing inspection
3.DEC.0073 2025-02	Fit testing of ready-made textiles in new condition and optimization of finished size tables with base
3.DEC.0075 2025-02	Fit inspection of ready-made textiles after care treatment
3.DEC.0076 2025-02	Checking of submitted ready-made textiles with regard to the finished size table from the manufacturer or recording of the dimensions of the ready-made textiles for the creation of a finished size table without a basis
3.DEC.0078 2025-02	Fit inspection of ready-made textiles in new condition without finished size table/base and creation of a calculation finished size table
3.DEC.0083 2025-02	Verification of the fit and/or product conformity

4.5 Determination of safety of children’s clothing by length measurement [Flex C]

DIN EN 14682 2015-03	Safety of children's clothing – Cords and drawstrings on children's clothing – Specifications
3.DEC.0080 2025-02	Checking the mesh lining for children's clothing

5 Physical tests of footwear [Flex B]

DIN EN ISO 14268 2023-05	Leather – Physical and mechanical tests – Determination of water vapour permeability
DIN EN ISO 17694 2016-10	Footwear – Test methods for uppers and lining – Flex resistance
DIN EN ISO 17707 2005-10	Footwear – Test methods for outsoles – Flex resistance
DIN EN ISO 17708 2018-10	Footwear – Test methods for whole shoe – Upper sole adhesion
DIN EN ISO 19956 2004-12	Footwear – Test methods for heels – Fatigue resistance
DIN EN ISO 22775 2005-03	Footwear – Test methods for accessories: Metallic accessories – Corrosion resistance
DIN EN ISO 5402-2 2015-12	Leather – Determination of flex resistance – Part 2: Vamp flex method
DIN EN 12770 2000-03	Footwear – Test methods for outsoles – Abrasion resistance

DIN EN 12785 2000-06	Footwear – Test methods for whole shoe – Heel attachment
DIN EN 13520 2005-03	Footwear – Test methods for uppers, lining and insocks – Abrasion resistance
DIN ISO 4649 2021-06	Rubber, vulcanized or thermoplastic – Determination of abrasion resistance using a rotating cylindrical drum device
ISO 17697 2016-05	Footwear – Test methods for uppers, lining and insocks – Seam strength
ISO 17704 2004-10	Footwear – Test methods for uppers, linings and insocks – Abrasion resistance
ISO 2781 2018-06	Rubber, vulcanized or thermoplastic – Determination of density
BS 5131-5.11 1981-11	Methods of test for footwear and footwear materials. Testing of complete footwear. Determination of the strength of buckle fastening assemblies
SATRA TM 21 2017-07	Fatigue test for shoe heels
SATRA TM 25 2020-02	Vamp flex test – resistance to creasing and cracking
SATRA TM 31 2021-11	Abrasion resistance – Martindale method
SATRA TM 55 1999-03	Flexing resistance of upper materials – Bally flexometer
SATRA TM 77 2017-04	Flexing machine – water penetration test
SATRA TM 92 2016-11	Resistance of footwear to flexing

SATRA TM 94 2018-02	Breaking force and extension at break of shoe laces
SATRA TM 113 2022-07	Measurement of the strength of attachment of heels to footwear and the backpart rigidity of such footwear
SATRA TM 118 2022-11	Strength of sandal toe posts
SATRA TM 120 2021-06	Strength of attachment of straps and nailed or stapled uppers
SATRA TM 134 2024-06	Density of materials by volume displacement
SATRA TM 141 1994-07	Breaking force of buckles – three point bending test
SATRA TM 142 1992-05	Falling mass shock absorption test
SATRA TM 144 2021-03	Friction (slip resistance) of footwear and floorings
SATRA TM 149 2021-12	Strength of eyelet facings and other laced fastenings
SATRA TM 150 1999-02	Attachment strength of eyelets
SATRA TM 159 2018-02	Cushioning properties
SATRA TM 161 2004-11	Bennewart flex test – resistance to cut growth on flexing
SATRA TM 172 1993-05	Water vapour permeability
SATRA TM 174 2016-11	Abrasion resistance – rotating drum method
SATRA TM 180 2016-11	Measurement of the strength of stitched seams in upper and lining materials

SATRA TM 181 2017-07	Strength of buckle and strap attachments
SATRA TM 205 2016-08 (2017)	Hardness of rubber, polyurethane and plastics – durometer method
SATRA TM 310 2020-12	Atmospheric sulphide tarnishing and salt water corrosion
SATRA TM 404 2020-01	Rapid sole adhesion test – for complete footwear
SATRA TM 411 2023-03	Peel strength of footwear sole bonds
ASTM F2232-14 2020	Standard Test Method for Determining the Longitudinal Load Required to Detach High Heels from Footwear
ASTM F2913-24 2024	Standard Test Method for Measuring the Coefficient of Friction for Evaluation of Slip Performance of Footwear and Test Surfaces / Flooring Using a Whole Shoe Tester

6 Textile chemical testing

6.1 Physico-chemical tests [Flex B]

DIN 53924 2020-09	esting of textiles – Velocity of soaking water of textile fabrics (method by determining the rising height)

6.2 Determination of mass difference by gravimetric testing of textile consumer goods [Flex C]

DIN 53923 2022-07	Testing of textiles – Determination of water absorption of textile fabrics
ISO 17617 2014-12	Textiles – Determination of moisture drying rate
FEMTECHMAS-6513-1 2022	Reusable female absorbent undergarment testing protocol

FEMTECHMAS-6514-1 2023	Reusable male absorbent undergarment testing protocol
3.DEC.0524 2024-09	Gravimetric determination of the water absorption of textiles after short-term contact

7 Testing of detergents and cleaning agents

7.1 Examination of detergents and cleaning agents, as well as stain formation and stain prevention [Flex B]

DIN ISO 2267 2016-12	Surface active agents – Evaluation of certain effects of laundering – Methods of preparation and use of unsoiled cotton control cloth
ISO 4312 1989-09	Surface active agents; evaluation of certain effects of laundering; methods of analysis and test for unsoiled cotton control cloth

7.2 Determination of the effectiveness of detergents and cleaning agents by simple visual examination [Flex C]

SÖFW Journal, 128th year 2002-05	Quality assessment of the cleaning performance of hand dishwashing detergents
3.DEC.0556 2024-09	Evaluation of the performance of detergents and washing aids by measuring visual, spectrophotometric and haptic properties of textiles

7.3 Determining the appearance of cosmetic stains by means of a simple visual examination [Flex C]

3.DEC.0562 2025-01	Visual inspection of stains

7.4 Determination of the effectiveness of washing and cleaning agents by means of photometric testing [Flex C]

3.DEC.0531 2024-09	Whiteness measurement
3.DEC.0556 2024-09	Evaluation of the performance of detergents and washing aids by measuring visual, spectrophotometric and haptic properties of textiles
3.DEC.0558 2024-09	Evaluation of the primary and secondary washing performance of detergents and washing aids by measuring visual, spectrophotometric and haptic properties of textiles

7.5 Determination of the appearance of cosmetic stains using photometric testing [Flex C]

3.DEC.0563 2024-09	Spectrophotometric measurement of cosmetic stains on textiles
3.DEC.0565 2024-09	Deodorant stains in-vitro test: yellow stains on white fabric

7.6 Determination of the effectiveness of washing and cleaning agents using special sensory tests (haptics) [Flex C]

3.DEC.0556 2024-09	Evaluation of the performance of detergents and washing aids by measuring visual, spectrophotometric and haptic properties of textiles
3.DEC.0529 2024-09	Evaluation of fabric handle

8 Cleaning treatment of textile material and accessories [Flex C]

DIN EN ISO 15797 2018-05	Textiles – Industrial washing and finishing procedures for testing of workwear
DIN EN ISO 3175-2 2020-05	Textiles – Professional care, drycleaning and wetcleaning of fabrics and garments – Part 2: Procedure for testing performance when cleaning and finishing using tetrachloroethene
DIN EN ISO 6330 2022-03	Textiles – Domestic washing and drying procedures for textile testing
3.DEC.0557 2024-09	Conducting washing tests for detergents and washing aids
3.DEC.0570 2024-09	Conducting the washing of used-wash tests

Abbreviations used:

AATCC	American Association of Textile Chemists and Colorists
AS	Australian Standard
AS/NZS	Australian/New Zealand Standard
ASTM	American Society for Testing and Materials
BS	British Standard
CFR	Code of Federal Regulation
CIE	International Commission on Illumination
CEN/TR	European Committee for Standardization – technical report
CEN/TS	European Committee for Standardization – technical specification
DIN	German Institute for Standardisation
EN	European Standard
FEMTECHMAS	Femtech Standards Publication
FMVSS	Federal Motor Vehicle Safety Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
OECD	Organisation for Economic Co-operation and Development
SATRA TM	Test Methods from SATRA Technology
SÖFW	Publisher for the Chemical Industry
3.DEC.xxxx	In-house method of Hohenstein Laboratories GmbH & Co. KG