

## Deutsche Akkreditierungsstelle GmbH

### Annex to the Accreditation Certificate D-PL-17277-01-00 according to ISO/IEC 17025:2017

**Period of validity:** 30.05.2022 to 29.05.2027

**Date of issue:** 30.05.2022

Holder of certificate:

**Hohenstein Laboratories (HK) Limited**  
**1/F, Biotech Centre 1, No. 9, Science Park West Avenue, Hong Kong Science Park,**  
**Shatin, N.T., Hong Kong**

Tests in the fields:

**physical, physical-chemical and chemical tests of consumer products-and chemical products**

**The testing laboratory is permitted, without being required to inform and obtain prior approval from DAkKS, to use standards or equivalent testing methods listed here with different issue dates. In-house procedures are generally excluded from this.**

**The testing laboratory is permitted, without being required to inform and obtain prior approval from DAkKS, the following:**

- 1) the free choice of standard methods or equivalent/similar methods within a defined testing field**
- 2) the modification, refinement and development of test methods within a defined testing field**

**The listed testing methods are exemplary. The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.**

*The management system requirements of ISO/IEC 17025 are written in language relevant to operations of testing laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of ISO 9001.*

*The certificate together with the annex reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de/en/accredited-bodies-search.html>.*

## Index

1	Physical, physical-chemical and chemical testing of consumer products.....	4
1.1	Determination of colourfastness of consumer products by ordinary visual examination <sup>1)</sup> .....	4
1.2	Physical tests on textile, leather, toys, infant articles and consumer products <sup>2)</sup> .....	7
1.3	Clean-up of leather.....	13
1.4	Determination of pH in eluates and extracts from textile and leather by electrode measurement <sup>1)</sup> .....	13
1.5	Quantitative determination of fibre mixtures from textile by gravimetry <sup>1)</sup> .....	13
1.6	Qualitative determination of fibre mixtures from textile by physical, chemical techniques as well as optical microscopy.....	15
1.7	Determination of metals with ICP/MS in eluates and extracts from textile, leather, toys, infant articles as well as other consumer products <sup>2)</sup> .....	15
1.8	Determination of organic compounds with gas chromatography with mass selective detectors (GC/MS) in eluates and extracts from textile, leather as well as other consumer products <sup>2)</sup> ..	16
1.9	Determination of organic compounds with liquid chromatography with diode array detection (HPLC/DAD) in eluates and extract from textile, leather and as well as other consumer products <sup>2)</sup> .....	20
1.10	Determination of organic compounds with liquid chromatography with mass-selective detectors (HPLC/MS) in eluates and extracts from textile and leather <sup>2)</sup> .....	21
1.11	Determination of formaldehyde and chromium (VI) by photometry in eluates and extracts from textile and leather.....	22
1.12	Qualitative and sensory testing in consumer products.....	22
1.13	Physical-chemical and chemical tests of products according to STANDARD 100, LEATHER STANDARD, ECO PASSPORT by OEKO-TEX® and GOTS.....	23
1.13.1	Determination of the pH value.....	23
1.13.2	Determination of formaldehyde.....	23
1.13.2.1	Qualitative testing for the presence of formaldehyde.....	23
1.13.2.2	Quantitative determination of the content of free and partially releasable formaldehyde .....	23
1.13.3	Determination of heavy metals.....	23
1.13.3.1	Extraction with artificial acid sweat solution .....	23
1.13.3.2	Digestion of the samples .....	24
1.13.3.3	Test for chromium (VI) .....	24
1.13.4	Determination of the content of phenols .....	24
1.13.5	Determination of the content of glyoxal .....	25
1.13.6	Determination of the content of softeners .....	25
1.13.7	Determination of the content of organic tin compounds .....	25
1.13.8	Determination of the content of PFC's.....	25
1.13.9	Determination of the content of DMFu .....	25
1.13.10	Test for human ecologically critical colorants .....	26
1.13.10.1	Test for Azo-colorants, which may be cleaved into arylamines of MAK-group III, categories 1 and 2 under reductive conditions.....	26
1.13.10.2	Test for dyestuffs and pigments, classified as carcinogenic.....	26
1.13.10.3	Test for dyestuff, classified as allergenic.....	27
1.13.11	Determination of the content of chlorinated benzenes and toluenes.....	27
1.13.12	Determination of the content of SCCP .....	27

**Period of validity: 30.05.2022 to 29.05.2027**

Date of issue: 30.05.2022

**Annex to the accreditation certificate D-PL-17277-01-00**

1.13.13 Determination of the content of PAK.....	27
1.13.14 Determination of the content of solvent residues.....	28
1.13.15 Determination of the content of surfactant and wetting agent residues.....	28
1.13.16 Determination of the content of flame retardants.....	28
1.13.17 Determination of the content of preservative.....	29
1.13.18 Test for colour fastnesses.....	29
1.13.19 Sensorial odour test.....	29

**1 Physical, physical-chemical and chemical testing of consumer products**

**1.1 Determination of colourfastness of consumer products by ordinary visual examination <sup>1)</sup>**

AATCC EP 1 2020	Evaluation Procedure for Gray Scale for Color Change
AATCC EP 2 2020	Evaluation Procedure for Gray Scale for Staining
AATCC TM 8 2016	Test Method for Colorfastness to Crocking: Crockmeter
AATCC TM 15 2021	Test Method for Colorfastness to Perspiration
AATCC TM 61 2013(2020)	Test Method for Colorfastness to Laundering: Accelerated
AATCC TM 104 2010(2014)	Test Method for Colorfastness to Water Spotting
AATCC TM 106 2009(2013)	Test Method for Colorfastness to Water: Sea
AATCC TM 107 2013	Test Method for Colorfastness to Water
AATCC TM 132 2004(2013)	Test Method for Colorfastness to Drycleaning
AATCC TM 162 2011	Test Method for Colorfastness to Water: Chlorinated Pool
AATCC TM 163 2013(2020)	Test Method for Colorfastness to Storage: Dye Transfer
AATCC TM 172 2010(2016)	Test Method for Colorfastness to Powdered Non-Chlorine Bleach in Home Laundering
AATCC TM 188 2010(2017)	Test Method for Colorfastness to Sodium Hypochlorite Bleach in Home Laundering
AATCC TS 001 2004	Quick Methods for Colorfastness to Chlorine and Non-Chlorine Bleach

**Annex to the accreditation certificate D-PL-17277-01-00**

DIN EN ISO 105-A01 2010-05	Textiles - Tests for colour fastness - Part A01: General principles of testing (ISO 105-A01:2010)
DIN EN 20105-A02 1994-10	Textiles - Tests for colour fastness - Part A02: Grey scale for assessing change in colour (ISO 105-A02:1993)
DIN EN ISO 105-A03 2020-02	Textiles - Tests for colour fastness - Part A03: Grey scale for assessing staining (ISO 105-A03:2019)
DIN EN ISO 105-B02 2014-11	Textiles - Tests for colour fastness - Part B02: Colour fastness to artificial light: Xenon arc fading lamp test (ISO 105-B02:2014)
DIN EN ISO 105-B07 2009-10	Textiles - Tests for colour fastness - Part B07: Colour fastness to light of textiles wetted with artificial perspiration (ISO 105-B07:2009)
DIN EN ISO 105-C06 2010-08	Textiles - Tests for colour fastness - Part C06: Colour fastness to domestic and commercial laundering (ISO 105-C06:2010)
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 (ISO 105-C08:2010)
DIN EN ISO 105-D01 2010-10	Textiles - Tests for colour fastness - Part D01: Colour fastness to dry cleaning of using perchloroethylene solvent (ISO 105-D01:2010)
DIN EN ISO 105-E01 2013-06	Textiles - Tests for colour fastness - Part E01: Colour fastness to water (ISO 105-E01:2013)
DIN EN ISO 105-E02 2013-06	Textiles - Tests for colour fastness - Part E02: Colour fastness to sea water (ISO 105-E02:2013)
DIN EN ISO 105-E03 2010-08	Textiles - Tests for colour fastness - Part E03: Colour fastness to chlorinated water (swimming-pool water) (ISO 105-E03:2010)
DIN EN ISO 105-E04 2013-08	Textiles - Tests for colour fastness - Part E04: Colour fastness to perspiration (ISO 105-E04:2013)
DIN EN ISO 105-E06 2006-10	Textiles - Tests for colour fastness - Part E06: Colour fastness to spotting: Alkali (ISO 105-E06:2006)
DIN EN ISO 105-E07 2010-08	Textiles - Tests for colour fastness - Part E07: Colour fastness to spotting: Water (ISO 105-E07:2010)
DIN EN 20105-N01 1995-03	Textiles - Tests for colour fastness - Part N01: Colour fastness to bleaching: Hypochlorite (ISO 105-N01:1993)

**Period of validity: 30.05.2022 to 29.05.2027**

Date of issue: 30.05.2022

**Annex to the accreditation certificate D-PL-17277-01-00**

DIN EN ISO 105-N02 2018-12	Textiles - Tests for colour fastness - Part N02: Colour fastness to bleaching: Peroxide (ISO 105-N02:1993)
DIN EN ISO 105-X05 1997-05	Textiles - Tests for colour fastness - Part X05: Colour fastness to organic solvents (ISO 105-X05:1994)
DIN EN ISO 105-X12 2016-11	Textiles - Tests for colour fastness - Part X12: Colour fastness to rubbing (ISO 105-X12:2016)
DIN EN ISO 105-X18 2007-12	Textiles - Tests for colour fastness - Part X18: Assessment of the potential to phenolic yellowing of materials (ISO 105-X18:2007)
DIN EN ISO 11640 2018-11	Leather - Tests for colour fastness - Colour fastness to cycles of to-and-fro rubbing (ISO 11640:2018)
DIN EN ISO 11641 2013-02	Leather - Tests for colour fastness - Colour fastness to perspiration (ISO 11641:2012)
DIN EN ISO 11642 2013-02	Leather - Tests for colour fastness - Colour fastness to water (ISO 11642:2012)
DIN EN ISO 12947-4 2007-04	Textiles - Determination of abrasion resistance of fabrics by the Martindale method - Part 4: Assessment of appearance change (Colour change after rubbing) (ISO 12947-4:1998+Cor.1:2002)
DIN 53160-1 2010-10	Determination of the colourfastness of articles for common use - Part 1: Test with artificial saliva
DIN 53160-2 2010-10	Determination of the colourfastness of articles for common use - Part 2: Test with artificial sweat
DIN 54056 2017-11	Testing of colour fastness of textiles - Determination of colour fastness of dyeings and prints to sublimation in storage
ASU B 82.02-13 2011-12	Analysis of commodity goods - Determination of the colourfastness of articles for common use - Part 2: Test with artificial sweat (Adoption of the DIN 53160-2 with the same title, edition October 2010)
ASU B 82.92-3 2011-12	Analysis of commodity goods - Determination of the colourfastness of articles for common use - Part 1: Test with artificial saliva (Adoption of the DIN 53160-1 with the same title, edition October 2010)
GB/T 3920 2008-08	Textiles - Tests for colour fastness - Colour fastness to rubbing

**Period of validity:** 30.05.2022 to 29.05.2027

Date of issue: 30.05.2022

**Annex to the accreditation certificate D-PL-17277-01-00**

GB/T 3922 2013-12	Textiles - Tests for colour fastness - Colour fastness to perspiration
GB/T 5713 2013-12	Textiles - Tests for colour fastness - Colour fastness to water
GB/T 18886 2019-06	Textiles - Tests for colour fastness - Colour fastness to saliva

**1.2 Physical tests on textile, leather, toys, infant articles and consumer products<sup>2)</sup>**

AATCC TM 22 2017	Test Method for Water Repellency: Spray
AATCC TM 88B 2018	Test Method for Seam Smoothness in Fabrics after Home Laundering
AATCC TM 88C 2018	Test Method for Crease Retention in Fabrics after Home Laundering
AATCC TM 118 2020	Test Method for Oil Repellency: Hydrocarbon Resistance
AATCC TM 124 2018	Test Method for Smoothness Appearance of Fabrics after Home Laundering
AATCC TM 127 2017(2018)	Test Method for Water Resistance: Hydrostatic Pressure
AATCC TM 135 2018	Test Method for Dimensional Changes of Fabrics after Home Laundering
AATCC TM 143 2018	Test Method for Appearance of Apparel and Other Textile End Products after Home Laundering
AATCC TM 150 2018	Test Method for Dimensional Changes of Garments after Home Laundering
AATCC TM 179 2019	Test Method for Skew Change in Fabrics After Home Laundering
ASTM D1683/D1683M-17 2018	Standard Test Method for Failure in Sewn Seams of Woven Fabrics

**Period of validity: 30.05.2022 to 29.05.2027**

Date of issue: 30.05.2022

**Annex to the accreditation certificate D-PL-17277-01-00**

ASTM D2261-13 2017	Standard Test Method for Tearing Strength of Fabrics by the Tongue (Single Rip) Procedure (Constant-Rate-of-Extension Tensile Testing Machine)
ASTM D3774-18 2018	Standard Test Method for Width of Textile Fabric
ASTM D3775-17 2018	Standard Test Method for End (Warp) and Pick (Filling) Count of Woven Fabrics
ASTM D3776/D3776M-20 2020	Standard Test Methods for Mass Per Unit Area (Weight) of Fabric
ASTM D3882-08 2020	Standard Test Method for Bow and Skew in Woven and Knitted Fabrics
ASTM D4966-12 2016	Standard Test Method for Abrasion Resistance of Textile Fabrics (Martindale Abrasion Tester Method)
ASTM D4970/D4970M-16 2018	Standard Test Method for Pilling Resistance and Other Related Surface Changes of Textile Fabrics: Martindale Tester
ASTM D5034-21 2021	Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)
ASTM D5035-11 2019	Standard Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Method)
ASTM D8007-15 2019	Standard Test Method for Wale and Course Count of Weft Knitted Fabrics
ASTM F963-17 2017	Standard Consumer Safety Specification for Toy Safety 4.6 Small objects 4.7 Accessible edges 4.9 Accessible points 8.8 Torque test for removal of components 8.9 Tension test for removal of components
ISO 17617 2014-12	Textiles - Determination of moisture drying rate
ISO 16322-1 2005-06	Textiles - Determination of spirality after laundering - Part 1: Percentage of wale spirality change in knitted garments
ISO 16322-2 2021-04	Textiles - Determination of spirality after laundering - Part 2: Woven and knitted fabrics

**Period of validity:** 30.05.2022 to 29.05.2027

Date of issue: 30.05.2022



**Annex to the accreditation certificate D-PL-17277-01-00**

ISO 16322-3 2021-04	Textiles - Determination of spirality after laundering - Part 3: Woven and knitted garments
DIN EN ISO 137 2016-09	Wool - Determination of fibre diameter - Projection microscope method (ISO 137:2015)
DIN EN ISO 811 2018-08	Textiles - Determination of resistance to water penetration - Hydrostatic pressure test (ISO 811:2018)
DIN EN ISO 2589 2016-07	Leather - Physical and mechanical tests - Determination of thickness (ISO 2589:2016)
DIN EN ISO 3377-1 2012-03	Leather - Physical and mechanical tests - Determination of tear load - Part 1: Single edge tear (ISO 3377-1:2011)
DIN EN ISO 3759 2011-08	Textiles - Preparation, marking and measuring of fabric specimens and garments in tests for determination of dimensional change (ISO 3759:2011)
DIN EN ISO 4674-1 2017-03	Rubber- or plastics-coated fabrics - Determination of tear resistance - Part 1: Constant rate of tear methods (ISO 4674-1:2016)
DIN EN ISO 4920 2012-12	Textile fabrics - Determination of resistance to surface wetting (spray test) (ISO 4920:2012)
DIN EN ISO 5077 2008-04	Textiles - determination of dimensional change in washing and drying (ISO 5077:2007)
DIN EN ISO 6330 2013-02	Textiles - Domestic washing and drying procedures for textile testing (ISO 6330:2012)
DIN EN ISO 12945-1 2021-04	Textiles - Determination of fabric propensity to surface pilling, fuzzing or matting - Part 1: Pilling box method (ISO 12945-1:2020)
DIN EN ISO 12945-2 2021-04	Textiles - Determination of fabric propensity to surface pilling, fuzzing or matting - Part 2: Modified Martindale method (ISO 12945-2:2020)
DIN EN ISO 12945-4 2021-04	Textiles - Determination of fabric propensity to surface pilling, fuzzing or matting - Part 4: Assessment of pilling, fuzzing and matting by visual analysis (ISO 12945-4:2020)
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 (ISO 12947-2:2016)

**Period of validity:** 30.05.2022 to 29.05.2027

Date of issue: 30.05.2022

**Annex to the accreditation certificate D-PL-17277-01-00**

DIN EN ISO 12947-3 2007-04	Textiles - Determination of abrasion resistance of fabrics by the Martindale method - Part 3: Determination of mass loss (ISO 12947-3:1998+Cor.1:2002)
DIN EN ISO 12947-4 2007-04	Textiles - Determination of abrasion resistance of fabrics by the Martindale method - Part 4: Assessment of appearance change (ISO 12947-4:1998+Cor. 1:2002)
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 (ISO 13934-1:2013)
DIN EN ISO 13934-2 2014-06	Textiles - Tensile properties of fabrics - Part 2: Determination of maximum force using the grab method (ISO 13934-2:2014)
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 (ISO 13935-1:2014)
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 (ISO 13935-2:2014)
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 (ISO 13936-1:2004)
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 (ISO 13936-2:2004)
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) (ISO 13937-2:2000)
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) (ISO 13937-3:2000)
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) (ISO 13937-4:2000)
DIN EN ISO 14419 2010-08	Textiles - Oil repellency - Hydrocarbon resistance test (ISO 14419:2010)

**Period of validity: 30.05.2022 to 29.05.2027**

Date of issue: 30.05.2022

**Annex to the accreditation certificate D-PL-17277-01-00**

DIN EN ISO 15487 2018-12	Textiles - Method for assessing appearance of apparel and other textile end products after domestic washing and drying (ISO 15487:2018)
DIN EN ISO 20932-1 2020-05	Textiles - Determination of the elasticity of fabrics - Part 1: Strip tests (ISO 20932-1:2018)
DIN EN ISO 22775 2005-03	Footwear - Test methods for accessories: Metallic accessories - Corrosion resistance (EN ISO 22775:2004) Exclusive: Method 2
DIN EN 1049-2 1994-02	Textiles; woven fabrics; construction methods of analysis; Part 2: Determination of number of threads per unit length (ISO 7211-2:1984, modified)
DIN EN 13770 2002-10	Textiles - Determination of the abrasion resistance of knitted footwear garments (EN 13770:2002) Method 1
DIN EN 1773 1997-03	Textiles - Fabrics - Determination of width and length (EN 1773:1996)
DIN EN 12127 1997-12	Textile - Fabrics - Determination of mass per unit area using small samples (EN 12127:1997)
DIN EN 14682 2015-03	Safety of children's clothing - Cords and drawstrings on children's clothing - Specifications (EN 14682:2014)
DIN EN 14704-1 2005-07	Determination of the elasticity of fabrics - Part 1: Strip tests (EN 14704-1:2005)
DIN EN 14971 2006-04	Textiles - Knitted fabrics - Determination of number of stitches per unit length and unit area (EN 14971:2006)
DIN EN 16732 2016-05	Slide fasteners (zips) - Specification (EN 16732:2015)
DIN EN 29073-1 1992-08	Textiles; test method for nonwovens; part 1: determination of mass per unit area (ISO 9073-1:1989)
DIN EN 29073-3 1992-08	Textiles; test method for nonwovens; part 3: determination of tensile strength and elongation (ISO 9073-3:1989)

**Period of validity:** 30.05.2022 to 29.05.2027

Date of issue: 30.05.2022

Annex to the accreditation certificate D-PL-17277-01-00

DIN EN 71-1 2018-12	Safety of toys - Part 1: Mechanical and physical properties (EN 71-1-2014+A1:2018) 8.2 Small parts cylinder 8.3 Torque test 8.4 Tension test 8.10 Accessibility of a part or component 8.11 Sharpness of edges 8.12 Sharpness of points
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 53859-5 1992-12	Testing of textiles; tear growth test on textile fabrics; trapezoid test
DIN 53924 2020-09	Testing of textiles - Velocity of soaking water of textile fabrics (method by determining the rising height)
DIN CEN/TR 16792 2015-11	Safety of children's clothing - Recommendations for the design and manufacture of children's clothing - Mechanical safety (CEN/TR 16792:2014) Exclusive: Annex B Method for determination of removal force of attached components Annex G Slide/zip fastener specification Annex H Small parts assessment
16 CFR PART 1500.48 2021-01	Technical requirements for determining a sharp point in toys and other articles intended for use by children under 8 years of age.
16 CFR PART 1500.49 2021-01	Technical requirements for determining a sharp metal or glass edge in toys and other articles intended for use by children under 8 years of age.
16 CFR PART 1500.51 2021-01	Test methods for simulating use and abuse of toys and other articles intended for use by children 18 months of age or less. Exclusive: (e) Torque test (f) Tension test
16 CFR PART 1500.52 2021-01	Test methods for simulating use and abuse of toys and other articles intended for use by children over 18 but not over 36 months of age. Exclusive: (e) Torque test (f) Tension test

Period of validity: 30.05.2022 to 29.05.2027

Date of issue: 30.05.2022

**Annex to the accreditation certificate D-PL-17277-01-00**

16 CFR PART 1500.53 2021-01	Test methods for simulating use and abuse of toys and other articles intended for use by children over 36 but not over 96 months of age Exclusive: (e) Torque test (f) Tension test
16 CFR PART 1501 2021-01	Method for identifying toys and other articles intended for use by children under 3 years of age which present choking, aspiration, or ingestion hazards because of small parts.
SOP-QM-11.HK.02.A4.044 2021-05	Corrosion tendency of metallic ingredients for clothing (DTB method)

**1.3 Clean-up of leather**

DIN EN ISO 4684 2006-02	Leather - Chemical tests - Determination of volatile matter (ISO 4684:2005)
----------------------------	---

**1.4 Determination of pH in eluates and extracts from textile and leather by electrode measurement<sup>1)</sup>**

DIN EN ISO 3071 2020-05	Textiles - Determination of pH of aqueous extract (ISO 3071:2020)
DIN EN ISO 4045 2018-09	Leather - Chemical tests - Determination of pH and difference figure (ISO 4045:2018)
GB/T 7573 2009-06	Textiles - Determination of pH of aqueous extract

**1.5 Quantitative determination of fibre mixtures from textile by gravimetry<sup>1)</sup>**

AATCC TM 20A 2021	Test Method for Fiber Analysis: Quantitative
DIN EN ISO 1833-1 2020-09	Textiles - Quantitative chemical analysis - Part 1: General principles of testing (ISO 1833-1:2020)
DIN EN ISO 1833-2 2020-09	Textiles - Quantitative chemical analysis - Part 2: Ternary fibre mixtures (ISO 1833-2:2020)
DIN EN ISO 1833-3 2021-03	Textiles - Quantitative chemical analysis - Part 3: Mixtures of acetate with certain other fibres (method using acetone) (ISO 1833-3:2020)

**Period of validity: 30.05.2022 to 29.05.2027**

Date of issue: 30.05.2022

**Annex to the accreditation certificate D-PL-17277-01-00**

DIN EN ISO 1833-4 2017-12	Textiles - Quantitative chemical analysis - Part 4: Mixtures of certain protein fibres with certain other fibres (method using hypochlorite) (ISO 1833-4:2017)
DIN EN ISO 1833-6 2019-07	Textiles - Quantitative chemical analysis - Part 6: Mixtures of viscose, certain types of cupro, modal or lyocell with certain other fibres (method using formic acid and zinc chloride) (ISO 1833-6:2018)
DIN EN ISO 1833-7 2017-12	Textiles - Quantitative chemical analysis - Part 7: Mixtures of polyamide with certain other fibres (method using formic acid) (ISO 1833-7:2017)
DIN EN ISO 1833-11 2017-12	Textiles - Quantitative chemical analysis - Part 11: Mixtures of certain cellulose fibres with certain other fibres (method using sulfuric acid) (ISO 1833-11:2017)
DIN EN ISO 1833-12 2021-03	Textiles - Quantitative chemical analysis - Part 12: Mixtures of acrylic, certain modacrylics, certain chlorofibres, certain elastane fibres with certain other fibres (method using dimethylformamide) (ISO 1833-12:2020)
DIN EN ISO 1833-16 2019-10	Textiles - Quantitative chemical analysis - Part 16: Mixtures of polypropylene fibres with certain other fibres (method using xylene) (ISO 1833-16:2019)
DIN EN ISO 1833-18 2021-03	Textiles - Quantitative chemical analysis - Part 18: Mixtures of silk with wool or other animal hair (method using sulfuric acid) (ISO 1833-18:2020)
DIN EN ISO 1833-22 2021-10	Textiles - Quantitative chemical analysis - Part 22: Mixtures of viscose or certain types of cupro or modal or lyocell with flax fibres (method using formic acid and zinc chloride) (ISO 1833-22: 2020)
DIN 54209 1975-08	Testing of textiles; quantitative analysis of binary mixtures, degummed mulberry silk with wool, formic acid/zinc chloride method
DIN 54221 1975-08	Testing of textiles; quantitative analysis of binary mixtures, polyamide 6 6 or polyamide 6 fibres with other fibres, hydrochloric acid method

**1.6 Qualitative determination of fibre mixtures from textile by physical, chemical techniques as well as optical microscopy**

AATCC TM 20 Test Method for Fiber Analysis: Qualitative  
2021

**1.7 Determination of metals with ICP/MS in eluates and extracts from textile, leather, toys, infant articles as well as other consumer products <sup>2)</sup>**

DIN EN 16711-1 Textiles - Determination of metal content - Part 1: Determination of  
2016-02 metals using microwave digestion (EN 16711-1:2015)  
(Modification: *Additional analytes: Se, Mn, Zn, Sn, Ba, Ag, Fe*)

DIN EN 16711-2 Textiles - Determination of metal content - Part 2: Determination of  
2016-02 metals extracted by acidic artificial perspiration solution  
(EN 16711-2:2015)  
(Modification: *Additional analytes: Ag, Sn, Zn, Mn*)

DIN EN ISO 17072-1 Leather - Chemical determination of metal content -  
2019-07 Part 1: Extractable metals (ISO 17072-1:2019)

DIN EN ISO 17072-2 Leather - Chemical determination of metal content -  
2019-07 Part 2: Total metal content (ISO 17072-2:2019)

DIN EN 1811 Reference test method for release of nickel from all post assemblies  
2015-10 which are inserted into pierced parts of the human body and articles  
intended to come into direct and prolonged contact with the skin (EN  
1811:2011+A1:2015)

DIN EN 12472 Method for the simulation of accelerated wear and corrosion for the  
2020-11 detection of nickel release from coated items (EN 12472:2020)

ASTM F963-17 Standard Consumer Safety Specification for Toy Safety  
2017 4.3.5.1 Heavy Elements: Paint and Similar Surface Coating Materials  
4.3.5.2 Heavy Elements: Substrate Materials

CPSC-CH-E1001-08.3 Standard Operating Procedure for Determining Total Lead (Pb) in  
2012-11 Children's Metal Products (Including Children's Metal Jewelry)

CPSC-CH-E1002-08.3 Standard Operating Procedure for Determining Total Lead (Pb) in  
2012-11 Nonmetal Children's Products

CPSC-CH-E1003-09.1 Standard Operating Procedure for Determining Lead (Pb) in Paint and  
2011-02 Other Similar Surface Coatings

**Annex to the accreditation certificate D-PL-17277-01-00**

HC Part B: Method C-02.2.1 2021-06	Determination of Total Lead in Surface Coating Materials in Consumer Products by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
HC Part B: Method C-02.3.1 2021-02	Determination of Total Lead and Cadmium in Plastic Consumer Products by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) (Modification: <i>Analysis with ICP-MS</i> )
HC Part B: Method C-02.4.1 2019-03	Determination of Total Lead and Cadmium in Metallic Consumer Products by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) (Modification: <i>Analysis with ICP-MS</i> )
GB/T 30157 2013-12	Textile - Determination of total content of lead and cadmium

**1.8 Determination of organic compounds with gas chromatography with mass selective detectors (GC/MS) in eluates and extracts from textile, leather as well as other consumer products <sup>2)</sup>**

ISO 19577 2019-11	Footwear - Critical substances potentially present in footwear and footwear components - Determination of Nitrosamines
DIN EN ISO 14362-1 2017-05	Textiles - Methods for determination of certain aromatic amines derived from azo colorants - Part 1: Detection of the use of certain azo colorants accessible with and without extracting the fibres (ISO 14362-1:2017) (Modification: <i>Additional analytes: 2,4-Xylidine, 2,6-Xylidine, Aniline, 4-Chloro-o-toluidinium chloride, 2,4,5-Trimethylaniline hydrochloride, 2-Naphthylammoniumacetate, 2,4-Diaminoanisole sulphate, p-Phenylenediamine, p-Phenetidine, p-Anisidine, 2,5-Diaminotoluene and 3,3'-Diaminobenzidine</i> )
DIN EN ISO 14362-3 2017-05	Textiles - Methods for the determination of certain aromatic amines derived from azo colorants - Part 3: Detection of the use of certain azo colorants, which may release 4-aminoazobenzene (ISO 14362-3:2017)



Annex to the accreditation certificate D-PL-17277-01-00

DIN EN ISO 14389 2014-10	Textiles - Determination of the phthalate content - Tetrahydrofuran method (ISO 14389:2014) (Modification: <i>Additional analytes: Tris (2-chlorethyl) phosphate, Dimethylphthalate, Diethylphthalate, Di-n-propylphthalate, Di-iso-pentylphthalate, n-Pentyl-iso-pentylphthalate, Di-iso-octylphthalate, Di-iso-hexylphthalate, Di-n-hexylphthalate, Di-n-nonylphthalate and Di-undecylphthalate</i> )
DIN EN ISO 16186 2021-09	Footwear - Critical substances potentially present in footwear and footwear components - Determination of dimethyl fumarate (DMFU) (ISO 16186:2021)
DIN EN ISO 16189 2022-03	Footwear - Critical substances potentially present in footwear and footwear components - Test method to quantitatively determine dimethylformamide in footwear materials (ISO 16189:2021) (Modification: <i>Here also for textile; extraction method</i> )
DIN EN ISO 17070 2015-05	Leather - Chemical tests - Determination of tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol-isomers and pentachlorophenol content (ISO 17070:2015)
DIN EN ISO 17234-1 2020-12	Leather - Chemical tests for the determination of certain azo colorants in dyed leather - Part 1: Determination of certain aromatic amines derived from azo colorants (ISO 17234-1:2020) (Modification: <i>Additional analytes: Aniline, 4-Chloro-o-toluidinium chloride, 2,4,5-Trimethylaniline hydrochloride, 2-Naphthylammoniumacetate, 2,4-Diaminoanisole sulphate, p-Phenylenediamine, p-Phenetidine, p-Anisidine, 2,5-Diaminotoluene and 3,3'-Diaminobenzidine</i> )
DIN EN ISO 17234-2 2011-06	Leather - Chemical tests for the determination of certain azo colorants in dyed leathers - Part 2: Determination of 4-aminoazobenzene (ISO 17234-2:2011)
DIN EN ISO 17881-1 2016-09	Textiles - Determination of certain flame retardants - Part 1: Brominated flame retardants (ISO 17881-1:2016) (Modification: <i>Here also for leather; additional analytes: 2,2',4,4',5,5'-Hexabromobiphenyl, 2-Bromodiphenylether, 2,4-Dibromodiphenylether, 2,2,4'-Tribromodiphenylether, 2,2',4,4',5-Pentabromodiphenylether, 2,2',3,3',4,4',5,5',6-Nonabromodiphenylether, (2-Ethylhexyl)-2,3,4,5-tetrabromobenzoate</i> )

Annex to the accreditation certificate D-PL-17277-01-00

DIN EN ISO 18219-1 2021-09	Leather - Determination of chlorinated hydrocarbons in leather - Part 1: Chromatographic method for short-chain chlorinated paraffins (SCCP) (ISO 18219-1:2021) (Modification: <i>Evaluation; calculation; extraction solution</i> )
DIN EN ISO 18219-2 2021-09	Leather - Determination of chlorinated hydrocarbons in leather - Part 2: Chromatographic method for middle-chain chlorinated paraffins (MCCPs) (ISO 18219-2:2021) (Modification: <i>Evaluation; calculation; extraction solution</i> )
DIN EN ISO 22744-1 2020-09	Textiles and textile products - Determination of organotin compounds - Part 1: Derivatisation method using gas chromatography (ISO 22744-1:2020) (Modification: <i>Additional analytes: Tetraoctyltin; extraction solution</i> )
DIN EN ISO 22818 2021-06	Textiles - Determination of short-chain chlorinated paraffins (SCCP) and middle-chain chlorinated paraffins (MCCP) in textile products out of different matrices by use of gas chromatography negative ion chemical ionization mass spectrometry (GC-NCI-MS) (ISO 22818:2021) (Modification: <i>Evaluation; calculation; extraction solution</i> )
DIN EN ISO 23702-1 2019-02	Leather - Organic fluorine - Part 1: Determination of non-volatile compounds by extraction method using liquid chromatography/tandem mass spectrometry detector (LC-MS/MS) (ISO 23702-1:2018) (Modification: <i>Here also for textile; method also GC-MS; Additional analytes: N-MeFOSAA, N-EtFOSAA, L-PFDS, L-PFHpS, 4:2 FTS, 6:2 FTS, 8:2 FTS, EtFOSE, MeFOSE, FTOH 4:2, FTOH 6:2, FTOH 8:2, FTOH 10:2, FTAC 6:2, FTAC 8:2, FTAC 10:2</i> )
DIN EN 17132 2019-09	Textiles and textile products - Determination of Polycyclic Aromatic Hydrocarbons (PAH), method using gas chromatography (EN 17132:2019)
DIN EN 17137 2019-02	Textiles - Determination of the content of compounds based on chlorobenzenes and chlorotoluenes (EN 17137:2018) (Modification: <i>Here also for leather</i> )
DIN 50009 2021-01	Textiles - Determination of tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol-isomers and pentachlorophenol content
CPSC-CH-C1001-09.4 2018-01	Standard Operating Procedure for Determination of Phthalates

Period of validity: 30.05.2022 to 29.05.2027

Date of issue: 30.05.2022

**Annex to the accreditation certificate D-PL-17277-01-00**

ASU B 82.02-2 2017-12	Analysis of commodity goods - Methods for determination of certain aromatic amines in textiles derived from azo colourants - Part 1: Detection of the use of certain azo colourants accessible with or without extraction (Adoption of the DIN EN 14362 Part 1 with the same title, edition May 2017)
ASU B 82.02-3 2021-04	Analysis of commodity goods - Methods for determination of certain azo colorants in dyed leather - Part 1: Determination of aromatic amines in azo colorants (Adoption of the DIN EN ISO 17234-1, edition December 2020)
ASU B 82.02-9 2014-02	Analysis of commodity goods - Methods for determination of certain azo colorants in dyed leather - Part 2: Determination of 4-Aminoazobenzene (Adoption of the DIN EN ISO 17234-2, edition June 2011)
ASU B 82.02-15 2017-12	Analysis of commodity goods - Methods for determination of certain azo colorants in textiles derived from azo colorants- Part 3: Detection of the use of certain azo colorants, which may release 4-Aminoazobenzene (Adoption of the DIN EN 14362 Part 3 with the same title, edition May 2017)
AfPS GS 2019:01 PAK 2019-04	Testing and Assessment of Polycyclic Aromatic Hydrocarbons (PAHs) in the awarding the GS Marks - Specification pursuant to Article 21(1) No. 3 of the Product Safety Act (ProdSG) (Limitation: <i>here only physical-chemical and chemical detection</i> )
GB/T 17592 2011-12	Textiles - Determination of the Banned Azo Colourants
GB/T 20388 2016-04	Textiles - Determination of the phthalate content - Tetrahydrofuran method
GB/T 24153 2009-06	Rubber and Elastomer Materials - Determination of N-nitrosamines
GB/T 23344 2009-03	Textiles - Determination of 4-aminoazobenzene
SOP-QM 11.HK.02.A3.018 2022-05	Determination of glycols and volatile organic compound (VOC) content with gas chromatography from commodity goods

**1.9 Determination of organic compounds with liquid chromatography with diode array detection (HPLC/DAD) in eluates and extract from textile, leather and as well as other consumer products <sup>2)</sup>**

DIN EN ISO 13365-1 2020-12	Leather - Determination of the preservative (TCMTB, PCMC, OPP, OIT) content in leather by liquid chromatography - Part 1: Acetonitrile extraction method (ISO 13365-1:2020) (Modification: <i>Here also for textile</i> )
DIN EN ISO 17226-1 2021-05	Leather - Chemical determination of formaldehyde content - Part 1: Method using high performance liquid chromatography (ISO 17226-1:2021)
DIN 54231 2005-11	Textiles - Detection of disperse dyestuffs (Modification: <i>Here also for leather; additional analytes: Quinoline and Iso-quinoline</i> )
DIN 54603 2008-08	Testing of paper, paperboard and board - Determination of glyoxal content (Modification: <i>Here for textile and leather; analysis by HPLC-DAD</i> )
ASU B 82.02-2 2017-12	Analysis of commodity goods - Methods for determination of certain aromatic amines in textiles derived from azo colorants - Part 1: Detection of the use of certain azo colorants accessible with or without extraction (Adoption of the DIN EN 14362 Part 1 with the same title, edition May 2017)
ASU B 82.02-3 2021-04	Analysis of commodity goods - Methods for determination of certain azo colorants in dyed leather - Part 1: Determination of aromatic amines in azo colorants (Adoption of the DIN EN ISO 17234-1, edition December 2020)
ASU B 82.02-9 2014-02	Analysis of commodity goods - Methods for determination of certain azo colourants in dyed leather - Part 2: determination of 4-Aminoazobenzene (Adoption of the DIN EN ISO 17234-2, edition June 2011)
ASU B 82.02-15 2017-12	Analysis of commodity goods - Methods for determination of certain azo colorants in textiles - Part 3: Detection of the use of certain azo colorants, which release 4-Aminoazobenzene (Adoption of the DIN EN 14362 Part 3 with the same title, edition May 2017)
GB/T 17592 2011-12	Textiles - Determination of the Banned Azo Colourants

GB/T 23344  
2009-03  
Textiles - Determination of 4-aminoazobenzene

**1.10 Determination of organic compounds with liquid chromatography with mass-selective detectors (HPLC/MS) in eluates and extracts from textile and leather <sup>2)</sup>**

DIN EN ISO 14362-1 2017-05	Textiles - Methods for determination of certain aromatic amines derived from azo colorants - Part 1: Detection of the use of certain azo colorants accessible with and without extracting the fibres (ISO 14362-1:2017) (Modification: <i>Additional analytes: 2,4-Xylidine, 2,6-Xylidine, Aniline, 4-Chloro-o-toluidinium chloride, 2,4,5-Trimethylaniline hydrochloride, 2-Naphthylammoniumacetate, 2,4-Diaminoanisole sulphate, p-Phenylenediamine, p-Phenetidine, p-Anisidine, 2,5-Diaminotoluene and 3,3'-Diaminobenzidine</i> )
DIN EN ISO 14362-3 2017-05	Textiles - Methods for the determination of certain aromatic amines derived from azo colorants - Part 3: Detection of the use of certain azo colorants, which may release 4-aminoazobenzene (ISO 14362-3:2017)
DIN EN ISO 17881-2 2016-09	Textiles - Determination of certain flame retardants - Part 2: Phosphorus flame retardants (ISO 17881-2:2016) (Modification: <i>Here also for leather; additional analytes: TBBPA, BIS, BBMP, TDCPP, TXP, Tri-o-cresylphosphate, TCPP, V6, IPTPP, TBPH</i> )
DIN EN ISO 18254-1 2016-09	Textiles - Method for the detection and determination of alkylphenol ethoxylates (APEO) - Part 1: Method using HPLC-MS (ISO 18254-1:2016) (Modification: <i>Additional analytes: HpP, PeP, NP and OP; use of alternative standards; calculation</i> )
DIN EN ISO 23702-1 2019-02	Leather - Organic fluorine - Part 1: Determination of non-volatile compounds by extraction method using liquid chromatography/tandem mass spectrometry detector (LC-MS/MS) (ISO 23702-1:2018) (Modification: <i>Here also for textile; method also GC-MS; additional analytes: N-MeFOSAA, N-EtFOSAA, L-PFDS, L-PFHpS, 4:2 FTS, 6:2 FTS, 8:2 FTS, EtFOSE, MeFOSE, FTOH 4:2, FTOH 6:2, FTOH 8:2, FTOH 10:2, FTAC 6:2, FTAC 8:2, FTAC 10:2</i> )
DIN 54231 2005-11	Textiles - Detection of disperse dyestuffs (Modification: <i>Here also for leather; additional analytes: Quinoline and Iso-quinoline</i> )

**Annex to the accreditation certificate D-PL-17277-01-00**

ASU B 82.02-10  
2007-03                      Analyses of commodity goods - Detection of disperse dyestuffs in  
textiles  
(Adoption of the DIN 54231, edition November 2005)

**1.11 Determination of formaldehyde and chromium (VI) by photometry in eluates and extracts from textile and leather**

DIN EN ISO 14184-1  
2011-12                      Textiles - Determination of formaldehyde - Part 1: Free and  
hydrolyzed formaldehyde (water extraction method)  
(ISO 14184-1:2011)

DIN EN ISO 17075-1  
2017-05                      Leather - Chemical determination of chromium(VI) content in leather  
- Part 1: Colorimetric method (ISO 17075-1:2017)  
(Modification: *Here also for textile*)

JIS L 1041  
2011-07                      Test methods for resin finished textiles  
Chapter 8: Free formaldehyde test  
Pursuant to the Japanese Harmful Substance-Containing Household  
Products Control Law No. 112

GB/T 2912.1  
2009-06                      Textiles—Determination of formaldehyde—  
Part 1: Free and hydrolyzed formaldehyde (water extraction method)

**1.12 Qualitative and sensory testing in consumer products**

SOP-QM-11.HK.02.A5.008  
2022-05                      Sensory examination of odour from commodity goods

SOP-QM-11.HK.02.A5.010  
2021-12                      Qualitative detection of Formaldehyde in textiles and accessories

SOP-QM-11.HK.03.082  
2020-06                      Beilstein-Test: Testing for halogenated-compounds

GB 18401  
2010-01                      National general safety technical code for textile products  
6.7 Odour Test

SNV 195 651  
2015-09                      Textiles - Determination of the development of smells of finishings  
(sensory testing)

**1.13 Physical-chemical and chemical tests of products according to STANDARD 100, LEATHER STANDARD, ECO PASSPORT by OEKO-TEX® and GOTS**

**1.13.1 Determination of the pH value**

DIN EN ISO 3071  
2020-05                      Textiles - Determination of pH of aqueous extract  
(ISO 3071:2020)

**1.13.2 Determination of formaldehyde**

**1.13.2.1 Qualitative testing for the presence of formaldehyde**

SOP-QM-11.HK.02.A5.010      Qualitative detection of formaldehyde in textiles and accessories  
2021-12

**1.13.2.2 Quantitative determination of the content of free and partially releasable formaldehyde**

JIS L 1041  
2011-07                      Quantitative determination of free and partly cleavable  
formaldehyde on finished textiles (acetylacetone method)  
Pursuant to the Japanese Harmful Substance-Containing Household  
Products Control Law No. 112

**1.13.3 Determination of heavy metals**

DIN EN 16711-1  
2016-02                      Textiles - Determination of metal content - Part 1: Determination of  
metals using microwave digestion (EN 16711-1:2015)  
(Modification: *Additional analytes: Se, Mn, Zn, Sn, Ba, Ag, Fe*)

DIN EN 16711-2  
2016-02                      Textiles - Determination of metal content - Part 2: Determination of  
metals extracted by acidic artificial perspiration solution  
(EN 16711-2:2015)  
(Modification: *Additional analytes: Ag, Sn, Zn, Mn*)

**1.13.3.1 Extraction with artificial acid sweat solution**

DIN EN ISO 17294-2  
2017-01                      Water quality - Application of inductively coupled plasma mass  
spectrometry (ICP-MS) - Part 2: Determination of selected elements  
including uranium isotopes (ISO 17294-2:2016)  
(*Exclude analysis with uranium isotopes*)

**Annex to the accreditation certificate D-PL-17277-01-00**

DIN EN 1811 2015-10	Reference test method for release of nickel from all post assemblies which are inserted into pierced parts of the human body and articles intended to come into direct and prolonged contact with the skin (EN 1811:2011+A1:2015)
DIN EN 12472 2020-11	Method for the simulation of accelerated wear and corrosion for the detection of nickel release from coated items (EN 12472:2020)

**1.13.3.2 Digestion of the samples**

CPSC-CH-E1001-08.3 2012-11	Standard Operation Procedure for Determining Total Lead (Pb) in Children's Metal Products (Including Children's Metal Jewelry) (Limitation: <i>here only sample preparation</i> )
HC Part B: Method C-02.3.1 2021-02	Determination of Total Lead and Cadmium in Plastic Consumer Products by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) (Limitation: <i>here only sample preparation</i> )

**1.13.3.3 Test for chromium (VI)**

ISO 11083 1994-08	Water quality - Determination of chromium(VI) - Spectrometric method using 1,5-diphenylcarbazide (Modification: <i>Here for textile</i> )
DIN EN ISO 17075-1 2017-05	Leather - Chemical determination of chromium(VI) content in leather - Part 1: Colorimetric method (ISO 17075-1:2017) (Modification: <i>Here also for textile</i> )

**1.13.4 Determination of the content of phenols**

DIN 50009 2021-01	Textiles - Determination of tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol-isomers and pentachlorophenol content
DIN EN ISO 17070 2015-05	Leather - Chemical tests - Determination of tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol-isomers and pentachlorophenol content (ISO 17070:2015)



### 1.13.5 Determination of the content of glyoxal

DIN 54603  
2008-08                      Testing of paper, paperboard and board - Determination of glyoxal content  
(Modification: *Here for textile and leather; analysis by HPLC-DAD*)

### 1.13.6 Determination of the content of softeners

DIN EN ISO 14389  
2014-10                      Textiles - Determination of the phthalate content - Tetrahydrofuran method (ISO 14389:2014)  
(Modification: *Additional analytes: Tris (2-chlorethyl) phosphate, Dimethylphthalate, Diethylphthalate, Di-n-propylphthalate, Di-iso-pentylphthalate, n-Pentyl-iso-pentylphthalate, Di-iso-octylphthalate, Di-iso-hexylphthalate, Di-n-hexylphthalate, Di-n-nonylphthalate and Di-undecylphthalate*)

GB/T 20388  
2016-04                      Textiles - Determination of the phthalate content - Tetrahydrofuran method

### 1.13.7 Determination of the content of organic tin compounds

DIN EN ISO 22744-1  
2020-09                      Textiles and textile products - Determination of organotin compounds - Part 1: Derivatisation method using gas chromatography (ISO 22744-1:2020)  
(Modification: *Additional analytes: Tetraoctyltin ; extraction solution*)

### 1.13.8 Determination of the content of PFC's

DIN EN ISO 23702-1  
2019-02                      Leather - Organic fluorine - Part 1: Determination of non-volatile compounds by extraction method using liquid chromatography/ tandem mass spectrometry detector (LC-MS/MS) (ISO 23702-1:2018)  
(Modification: *Here also for textile; method also GC-MS; additional analytes: N-MeFOSAA, N-EtFOSAA, L-PFDS, L-PFHpS, 4:2 FTS, 6:2 FTS, 8:2 FTS, EtFOSE, MeFOSE, FTOH 4:2, FTOH 6:2, FTOH 8:2, FTOH 10:2, FTAC 6:2, FTAC 8:2, FTAC 10:2*)

### 1.13.9 Determination of the content of DMFu

DIN EN ISO 16186  
2021-09                      Footwear - Critical substances potentially present in footwear and footwear components - Determination of dimethyl fumarate (DMFu) (ISO 16186:2021)

**1.13.10 Test for human ecologically critical colorants**

**1.13.10.1 Test for Azo-colorants, which may be cleaved into arylamines of MAK-group III, categories 1 and 2 under reductive conditions**

DIN ISO EN 14362-1 2017-05	Textiles - Methods for determination of certain aromatic amines derived from azo colorants - Part 1: Detection of the use of certain azo colorants accessible with and without extracting the fibres (ISO 14362-1:2017) (Modification: <i>Additional analytes: 2,4-Xylidine, 2,6-Xylidine, Aniline, 4-Chloro-o-toluidinium chloride, 2,4,5-Trimethylaniline hydrochloride, 2-Naphthylammoniumacetate, 2,4-Diaminoanisole sulphate, p-Phenylenediamine, p-Phenetidine, p-Anisidine, 2,5-Diaminotoluene and 3,3'-Diaminobenzidine</i> )
DIN EN ISO 14362-3 2017-05	Textiles - Methods for determination of certain aromatic amines derived from azo colorants - Part 3: Detection of the use of certain azo colorants, which may release 4-aminoazobenzene (ISO 14362-3:2017)
DIN EN ISO 17234-1 2020-12	Leather - Chemical tests for the determination of certain azo colorants in dyed leathers - Part 1: Determination of certain aromatic amines derived from azo colorants (ISO 17234-1:2020) (Modification: <i>Additional analytes: Aniline, 4-Chloro-o-toluidinium chloride, 2,4,5-Trimethylaniline hydrochloride, 2-Naphthylammoniumacetate, 2,4-Diaminoanisole sulphate, p-Phenylenediamine, p-Phenetidine, p-Anisidine, 2,5-Diaminotoluene and 3,3'-Diaminobenzidine</i> )
DIN EN ISO 17234-2 2011-06	Leather - Chemical tests for the determination of certain azo colorants in dyed leathers - Part 2: Determination of 4-aminoazobenzene (ISO 17234-2:2011)
GB/T 17592 2011-12	Textiles - Determination of the Banned Azo Colourants
GB/T 23344 2009-03	Textiles - Determination of 4-aminoazobenzene

**1.13.10.2 Test for dyestuffs and pigments, classified as carcinogenic**

DIN 54231 2005-11	Textiles - Detection of disperse dyestuffs (Modification: <i>Here also for leather; additional analytes: Quinoline and Iso-quinoline</i> )
----------------------	---

**1.13.10.3 Test for dyestuff, classified as allergenic**

DIN 54231  
2005-11  
Textiles - Detection of disperse dyestuffs  
(Modification: *Here also for leather; additional analytes: Quinoline and Iso-quinoline*)

**1.13.11 Determination of the content of chlorinated benzenes and toluenes**

DIN EN 17137  
2019-02  
Textiles - Determination of the content of compounds based on chlorobenzenes and chlorotoluenes (EN 17137:2018)  
(Modification: *Here also for leather*)

**1.13.12 Determination of the content of SCCP**

DIN EN ISO 18219-1  
2021-09  
Leather - Determination of chlorinated hydrocarbons in leather - Part 1: Chromatographic method for short-chain chlorinated paraffins (SCCP) (ISO 18219-1:2021)  
(Modification: *Evaluation and calculation, extraction solution*)

DIN EN ISO 18219-2  
2021-09  
Leather - Determination of chlorinated hydrocarbons in leather - Part 2: Chromatographic method for middle-chain chlorinated paraffins (MCCPs) (ISO 18219-2:2021)  
(Modification: *Evaluation and calculation, extraction solution*)

DIN EN ISO 22818  
2021-06  
Textiles - Determination of short-chain chlorinated paraffins (SCCP) and middle-chain chlorinated paraffins (MCCP) in textile products out of different matrices by use of gas chromatography negative ion chemical ionization mass spectrometry (GC-NCI-MS) (ISO 22818:2021)  
(Modification: *Evaluation and calculation, extraction solution*)

**1.13.13 Determination of the content of PAK**

AfPS GS 2019:01 PAK  
2019-04  
Testing and Assessment of Polycyclic Aromatic Hydrocarbons (PAHs) in the awarding the GS Marks - Specification pursuant to Article 21(1) No. 3 of the Product Safety Act (ProdSG)  
(Limitation: *here only physical-chemical and chemical detection*)

DIN EN 17132  
2019-09  
Textiles and textile products - Determination of Polycyclic Aromatic Hydrocarbons (PAH), method using gas chromatography (EN 17132:2019)

### 1.13.14 Determination of the content of solvent residues

DIN EN ISO 16189 2022-03	Footwear - Critical substances potentially present in footwear and footwear components - Test method to quantitatively determine dimethylformamide in footwear materials (ISO 16189: 2021) (Modification: <i>Here also for textile; extraction method</i> )
SOP-QM 11.HK.02.A3.018 2022-05	Determination of glycols and volatile organic compound (VOC) content with gas chromatography from commodity goods

### 1.13.15 Determination of the content of surfactant and wetting agent residues

DIN EN ISO 18254-1 2016-09	Textiles - Method for the detection and determination of alkylphenol ethoxylates (APEO) - Part 1: Method using HPLC-MS (ISO 18254-1:2016) (Modification: <i>Additional analytes: HpP, PeP, NP and NP, OP; use of alternative standards; calculation</i> )
-------------------------------	--

### 1.13.16 Determination of the content of flame retardants

DIN EN ISO 17881-1 2016-09	Textiles - Determination of certain flame retardants - Part 1: Brominated flame retardants (ISO 17881-1:2016) (Modification: <i>Here also for leather; additional analytes: 2,2',4,4',5,5'-Hexabromobiphenyl, 2-Bromodiphenylether, 2,4-Dibromodiphenylether, 2,2,4'-Tribromodiphenylether, 2,2',4,4',5-Pentabromodiphenylether, 2,2',3,3',4,4',5,5',6-Nonabromodiphenylether, (2-Ethylhexyl)-2,3,4,5-tetrabromobenzoate</i> )
DIN EN ISO 17881-2 2016-09	Textiles - Determination of certain flame retardants - Part 2: Phosphorus flame retardants (ISO 17881-2:2016) (Modification: <i>Here also for leather; additional analytes: TBBPA, BIS, BBMP, TDCPP, TXP, Tri-o-cresylphosphate, TCPP, V6, IPTPP, TBPH</i> )

**1.13.17 Determination of the content of preservative**

DIN EN ISO 13365-1  
2020-12                      Leather - Chemical determination of the preservative (TCMTB, PCMC, OPP, OIT) content in leather by liquid chromatography - Part 1: Acetonitrile extraction method (ISO 13365-1:2020) (Modification: *Here also for textile*)

**1.13.18 Test for colour fastnesses**

DIN EN ISO 105-E01  
2013-06                      Textiles - Tests for colour fastness - Part E01: Colour fastness to water (ISO 105-E01:2013)

DIN EN ISO 105-E04  
2013-08                      Textiles - Tests for colour fastness - Part E04: Colour fastness to perspiration (ISO 105-E04:2013)

DIN EN ISO 105-X12  
2016-11                      Textiles - Tests for colour fastness - Part X12: Colour fastness to rubbing (ISO 105-X12:2016)

DIN 53160-1  
2010-10                      Determination of the colourfastness of articles for common use - Part 1: Test with artificial saliva

DIN 53160-2  
2010-10                      Determination of the colourfastness of articles for common use - Part 2: Test with artificial sweat

**1.13.19 Sensorial odour test**

SOP-QM-11.HK.02.A5.008  
2022-05                      Sensory examination of odour from commodity goods

**Abbreviations used:**

AATCC	American Association of Textile Chemists and Colorists
AfPS	Product Safety Commission (Ausschuss für Produktsicherheit)
ASTM	ASTM International, formerly known as the American Society for Testing and Materials
ASU	Official collection of test methods according to § 64 food, feeding stuff and commodity goods, law code available as technical rule BVL at the Beuth Verlag ( <a href="http://www.beuth.de">www.beuth.de</a> )
CEN	Comité Européen de Normalisation [European Committee for Standardization]
CFR	Code of Federal Regulations (USA)
CPSC	Consumer Product Safety Commission (USA)
DIN	Deutsches Institut für Normung e.V. [German Institute for Standardisation Registered Association]
EN	Europäische Norm [European Standards]
GOTS	Global Organic Textile Standard
HC	Health Canada - Product Safety Laboratory, Reference Manual Book 5 - Laboratory Policies and Procedures
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
JIS	Japan Industrial Standard
SOP-QM	In-house-method of Hohenstein Laboratories (HK) Limited