

Annex to the Partial Accreditation Certificate D-PL-21471-01-02

Tests in the fields:

**Physical, physical-chemical, chemical, visual and sensory tests of textiles and leather;
Selected physical, physical-chemical and chemical test of food contact materials**

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 methods**
- ²⁾ the modification, refinement and development of test methods**

The listed testing methods are exemplary.

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 maintains a current list of all testing methods within the flexible scope of accreditation.

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Testing of consumer products

1 Physical, physical-chemical and chemical tests of products textiles and leather

1.1 Determination of the pH-value in textiles and leather using electrode measurement ¹⁾

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

1.2 Determination of the metal content in textiles and leather using inductively coupled plasma mass spectroscopy (ICP-MS) ¹⁾

DIN EN 16711-1 2016-02	Textiles - Determination of metal content - Part 1: Determination of metals using microwave digestion (Modification: <i>Additional analytes: Se, Mn, Zn, Sn, Ba, Ag, Fe</i>)
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: <i>Additional analytes: Ag, Sn, Zn, Mn</i>)
DIN EN ISO 17072-1 2019-07	Leather - Chemical determination of metal content - Part 1: Extractable metals
DIN EN ISO 17072-2 2022-12	Leather - Chemical determination of metal content - Part 2: Total metal content

1.3 Determination of the metal content in textiles and leather using inductively coupled plasma optical emission spectroscopy (ICP-OES) ¹⁾

DIN EN 16711-1 2016-02	Textiles - Determination of metal content - Part 1: Determination of metals using microwave digestion (Modification: <i>Additional analytes: Se, Mn, Zn, Sn, Ba, Ag, Fe</i>)
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DIN EN ISO 17072-2 2022-12	Leather - Chemical determination of metal content- Part 2: Total metal content
CPSC-CH-E1001-08.3 2012-11	Standard Operating Procedure for Determining Total Lead (Pb) in Children's Metal Products (Including Children's Metal Jewelry)
CPSC-CH-E1002-08.3 2012-11	Standard Operating Procedure for Determining Total Lead (Pb) in Nonmetal Children's Products
GB/T 30157 2013-12	Textile - Determination of total content of lead and cadmium

1.4 Determination of organic compounds in textiles and leather using gas chromatography (GC) with mass selective detectors (MS, MS/MS) ²⁾

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 (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
DIN EN ISO 14389 2023-01	Textiles - Determination of the phthalate content - Tetrahydrofuran method (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)

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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 (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
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 (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
DIN EN ISO 18219-1 2021-09	Leather - Determination of chlorinated hydrocarbons in leather - Part 1: Chromatographic method for short-chain chlorinated paraffins (SCCP) (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) (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 (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) (Modification: <i>Evaluation; calculation; extraction solution</i>)
DIN EN 17132 2019-09	Textiles and textile products - Determination of Polycyclic Aromatic Hydrocarbons (PAH), method using gas chromatography

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DIN EN 17137 2019-02	Textiles - Determination of the content of compounds based on chlorobenzenes and chlorotoluenes (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
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 2020-04	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 for commodity goods, only testing for PAH, no risk assessment, categorisation and evaluation</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

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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

1.5 Determination of organic compounds in textiles and leather using liquid chromatography (HPLC) with conventional detector (DAD) ¹⁾

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 (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
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)

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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

1.6 Determination of organic compounds in commodity goods in contact with human skin using liquid chromatography (LC) with mass-selective detectors (MS, MS/MS) ¹⁾

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 (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
DIN EN ISO 18254-1 2016-09	Textiles - Method for the detection and determination of alkylphenol ethoxylates (APEO) - Part 1: Method using HPLC-MS (Modification: <i>Additional analytes: HpP, PeP, NP and OP; use of alternative standards; calculation</i>)
DIN 54231 2005-11	Textiles - Detection of disperse dyestuffs (Modification: <i>Here also for leather; additional analytes: Quinoline and Iso-quinoline</i>)
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 September 2022)

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1.7 Determination of formaldehyde and chromium (VI) textiles and leather using photometry

ISO 11083 1994-08	Water quality - Determination of chromium(VI) - Spectrometric method using 1,5-diphenylcarbazide (Modification: Here for textile)
DIN EN ISO 14184-1 2011-12	Textiles - Determination of formaldehyde - Part 1: Free and hydrolyzed formaldehyde (water extraction method)
DIN EN ISO 17075-1 2017-05	Leather - Chemical determination of chromium(VI) content in leather - Part 1: Colorimetric method (Modification: <i>Here also for textile</i>)
JIS L 1041 2011-07	Test methods for resin finished textiles Chapter 8: Free formaldehyde test
GB/T 2912.1 2009-06	Textiles—Determination of formaldehyde— Part 1: Free and hydrolyzed formaldehyde (water extraction method)

1.8 Visual and sensory tests of textiles and leather

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)

2 Physical, physical-chemical and chemical test of food contact materials

2.1 Determination of overall migration food contact materials using gravimetric analysis ¹⁾

DIN EN 1186-3 2022-10	Materials and articles in contact with foodstuffs - Plastics - Part 3: Test methods for overall migration in evaporable simulants
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DIN EN 1186-13 2002-12	Materials and articles in contact with foodstuffs. Plastics. Part 13: Test methods for overall migration at high temperatures. Section 4 Method B - Adsorption on modified polyphenylene oxide
BfR Rec B II XV Section 9 (Untersuchung von Bedarfsgegenständen aus Siliconen Stand: 1. 8. 1980 section 9)	Determination of the extractable parts in consumer goods made of silicone resins and silicone elastomers (Section 9)
BfR Rec B II XV Section 14 (61st Communication on testing of plastics, Bundesgesundheitsblatt, 46 (2003) 362)	Determination of the volatile content in silicone elastomers (Section 14)
19th Communication on testing of plastics, Bundesgesundheitsblatt 14 (1971) 265 & 48th Communication on the testing of plastics, Bundesgesundheitsblatt 25 (1982) 334	Determination of the organic volatile components in consumer goods made of non-foamed polystyrene as well as of non-foamed styrene, mixed and graft polymers and mixtures of polystyrene with polymers

2.2 Organic hazardous substances in materials and articles intended to come into contact with Food with mass selective detectors using Liquid Chromatography (HPLC-MS/MS; LC-MS; LC-MS/MS) ²⁾

DIN CEN/TS 13130-13 2005-05	Materials and articles in contact with foodstuffs. Plastics substances subject to limitation. Part 13: Determination of 2,2-Bis(4- hydroxyphenyl)propane (Bisphenol A) in food simulants
DIN EN 14372 2004-11	Child use and care articles. Cutlery and feeding utensils. Safety requirements and tests (Limitation: <i>Here only for Bisphenol A</i>)
EUR 24815 EN Annex 1 Protocol A 1st edition 2011-12	Technical guidelines on testing the migration of primary aromatic amines from polyamide kitchenware and of formaldehyde from melamine kitchenware (Limitation: <i>Analysis with LC-MS/MS only</i>)

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SOP-QM-11.HK.02.A10.016 Determination of Bisphenol-A in plastics using LC-MS/MS
2023-08

2.3 Heavy metals in materials and articles intended to come into contact with food using induced-coupled plasma optical emission spectrometry (ICP-MS) ²⁾

SOP-QM-11.HK.02.A10.018 Specific migration of metals (aluminium, barium, cobalt, copper, iron, lithium, manganese, nickel and zinc) in plastics using ICP-MS
2023-08

2.4 Organic hazardous substances of plastic from materials and articles intended to come into contact with food using gas chromatography - mass spectrometry (GC-MS)

SOP-QM-11.HK.02.A10.017 Specific migration of phthalates in plastics using GC-MS
2023-08

Abbreviations used:

AfPS	Product Safety Commission [Ausschuss für Produktsicherheit]
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 (www.beuth.de)
BfR	Bundesinstitut für Risikobewertung [German Federal Institute for Risk Assessment]
CEN	Comité Européen de Normalisation [European Committee for Standardization]
CPSC	Consumer Product Safety Commission (USA)

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DIN	Deutsches Institut für Normung e.V. [German Institute for Standardisation Registered Association]
EN	Europäische Norm [European Standards]
GB; GB/T	National Standard of the People's Republic of China
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
JIS	Japan Industrial Standard
SOP-QM	In-house-method of Hohenstein Laboratories (HK) Limited