

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-11097-01-00 according to ISO/IEC 17025:2005

Period of validity: 05.03.2019 to 16.08.2022

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Holder of certificate:

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Tests in the fields:

physical, physico-chemical, chemical and mechanical testing of electrical and electronic equipment, toys, textiles, leather and leather goods, plastics, rubber, woods, paper as well as materials and products intended to come into contact with foodstuffs, and biodegradable materials

abbreviations used: see last page

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.

1 Physico-chemical and chemical tests of electrical and electronic equipment

EN 62321 2009-04 BS EN 62321 2009-05	Electrotechnical products - Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers)
IEC 62321 2008-08	Electrotechnical products - Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers)
IEC 62321-1 Edition 1.0:2013	Determination of certain substances in electrotechnical products- Part 1: Introduction and overview
IEC 62321-2 Edition 1.0:2013	Determination of certain substances in electrotechnical products- Part 2: Disassembly, disjointment and mechanical sample preparation
IEC 62321-3.1 Edition 1.0:2013	Determination of certain substances in electrotechnical products- Part 3-1: Screen-Lead, mercury, cadmium, total chromium and total bromine by X-ray fluorescence spectrometry
IEC 62321-4 Edition 1.1:2017	Determination of certain substances in electrotechnical products- Part 4: Mercury in polymers, metals and electronics by CV-AFS, CV-AAS, ICP-OES and ICP-MS
IEC 62321-5 Edition 1.0:2013	Determination of certain substances in electrotechnical products- Part 5: Cadmium, lead and chromium in polymers and electronics and Cadmium and lead in metals by AAS, AFS, ICP-OES and ICP-MS
IEC 62321-6 Edition 1.0:2015	Determination of certain substances in electrotechnical products – Part 6: Polybrominated biphenyls and polybrominated diphenyl ethers in polymers by gas chromatography–mass spectrometry (GC-MS)
MS_0006993_en 2018-05	Test instruction for determination of Polybrominated Biphenyls (PBBs) and Polybrominated Diethyl Ethers (PBDEs) in polymers and textiles with reference to IEC 62321-6
BS EN 1122 2001-05	Plastics – Determination of Cadmium – Wet Decomposition Method
NF X70 100-1 2006-04	Fire tests Analysis of gaseous effluents-Part 1: Methods for analyzing gases stemming from thermal degradation

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NF X70 100-2
2006-04 Fire tests-Analysis of gaseous effluents-Part 1: Tubular furnace
thermal degradation method

2 Physico-chemical and chemical tests of textiles, plastics, leather, rubber, wood, paper and toys

ISO 14362-1
2017-02 Textiles - Methods for the determination of certain aromatic amines derived from azo colorants - Part 1 : Detection of the use of certain azo colorants accessible with and without extraction

ISO 14362-3
2017-02 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

ASU B 82.02-2
2013-01 Textiles – Method of the determination of certain aromatic amines derived from azo colourants - Part 1: Detection of the use of certain azo colorants accessible with and without extraction

ISO 17234-1
2015-06 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 17234-2
2011-03 Leather - Chemical tests for the determination of certain azo colorants in dyed leathers - Part 2: Determination of 4-aminoazobenzene

ASU B 82.02-3
2004-06 Leather - chemical tests - Determination of certain azo colourants in dyed leather

ISO 17075-1
2017-02 Leather - Chemical tests - Determination of chromium VI content in leather - Part 1: Colorimetric method

MS_0023159_en
2017-06 Work Instruction for Determination of extractable heavy metals according to ISO 105 E04

SNV 195 651
1968 Textiles: Determination of odour development by equipment (qualitative analysis)

MS_0023448_en
2017-06 Work instruction for Determination of organo tin compounds in plastic and textile materials by GC-MS

MS_0023194_en
2017-06 Test instruction for determination of Chlorinated Phenols in wood, textiles and leathers

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MS_0023336_en 2017-06	Work instruction for Determination of dimethylfumarate in leather and fabric by GC-MS
BS EN ISO 17070 2015-02	Leather - chemical tests - determination of tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol-isomers and pentachlorophenol content
ISO 3071 2005-06	Textiles - Determination of pH of aqueous extract
ISO 4045 2018-05	Leather - Determination of pH and difference figure
ISO 14184-1 2011-08	Textiles - Determination of Formaldehyde - Part 1: Free and hydrolyzed formaldehyde (water extraction method)
ISO 17226-1 2008-05	Leather - Chemical determination of formaldehyde content - Part 1: Method using high performance liquid chromatography
ISO 16000-9 2006-02	Indoor air - Part 9: Determination of the emission of volatile organic compounds from building products and furnishing - Emission test chamber method
ISO 16000-6 2011-12	Indoor air - Part 6: Determination of volatile organic compounds in indoor and test chamber air by active sampling on Tenax TA sorbent, thermal desorption and gas chromatography using MS/FID.
EN ISO 12460-5 2015-12	Wood-based panels - Determination of formaldehyde release - Part 5: Extraction method
EN 717-1 2004-10	Wood-based panels - Determination of formaldehyde release - Part 1: Formaldehyde emission by chamber method
EN ISO 12460-3 2015-11	Wood-based panels - Determination of formaldehyde release - Part 3: Gas analysis method
EN 717-3 1996-03	Determination of formaldehyde release Part 3 - formaldehyde release by flask release
ASTM D6007-2014	Standard Test Method for Determining Formaldehyde Concentrations in Air from Wood Products Using a Small-Scale Chamber
DIN 54231 2005-11	Textile - Detection of disperse dyestuff

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MS-0023223_en 2017-06	Work instruction for Determination of disperse dyestuffs
EN 1811:2011+A1:2015 2015-07	Reference test method for the release of nickel from products intended to come into direct and prolonged contact with the Skin
EN 12472:2005+A1:2009-06	Method for the simulation of wear and corrosion for the detection of nickel release from coated items
PD CR 12471 2002-08	Screening tests for nickel release from alloys and coatings in items that come into direct and prolonged contact with the skin
MS_0007099_en 2016-11	Work Instruction for Determination of phthalates in plastics by GC-MS
ZEK 01.4-08 2011-11	Testing and Validation of Polycyclic Aromatic Hydrocarbons (PAH) in the course of GS-Mark Certification
AfPS 2014-08	GS Specification - Testing and Evaluation of Polycyclic Aromatic Hydrocarbons (PAH) for the Award of the GS Mark, by the Committee for Product Safety (AfPS), dated August 4th 2014
MS_0023187_en 2017-06	Work Instruction for Determination of nonyl phenol in plastic by GC-MS
MS_0010144_en 2016-06	Harmonised testing instruction of determination of short chain chlorinated paraffin (SCCP) with GC-CIMS analysis
EN 71-3:2013+A3:2018 2018-06 DIN EN 71-3:2013+A3:2018 2018-07 BS EN 71-3:2013+A3:2018 2018-06	Safety of toys – Part 3: Migration of certain elements
ASTM F 963-17 2017-08	Standard Consumer Safety Specification for Toy Safety- 4.3.3.2 Ceramic ware, lead ,and cadmium contamination 4.3.5 Heavy elements 4.3.5.1 Paint and Similar Surface-Coating Materials 4.3.5.2 Toy Substrate Materials 8.3 Test methods for Determination of Heavy Elements Content in Toys, Toy Components and Materials
MS-0007210_en 2017-07	Test Method for ASTM F963-17 Clause 4.3.7 Stuffing Materials

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MS-0008491_en 2018-03	Determination of total lead content in Paint and Other Similar Surface Coatings according to CPSC-CH-E1003-09.1
CPSC-CH-E1002-08.3 2012-11	Standard Operating Procedure for Determining Total Lead (Pb) in Non-metal Children's Products
CPSC-CH-C1001-09.4 2018-01	Standard Operating Procedure for Determination of Phthalates
EN 71-10 2005-12	Safety of toys - Part 10: Organic chemical compounds - Sample preparation and extraction - <i>Only for EN 71-9 Table 2A Flame retardants, Table 2B Colourants, Table 2C Primary aromatic amines, Table 2D Monomers (migration), Table 2E solvents(migration), Table 2F Solvents (inhalation), Table 2G a) & b) Wood preservatives, Table 2H Preservatives (other than wood preservatives), Table 2I Plasticisers (migration) and Colorfastness to Perspiration</i>
EN 71-11 2005-11	Safety of toys - Part 11: Organic chemical compounds Methods of analysis <i>Only for EN 71-9 Table 2A Flame retardants, Table 2B Colourants, Table 2C Primary aromatic amines, Table 2D Monomers (migration), Table 2E solvents(migration), Table 2F Solvents (inhalation), Table 2G a) & b) Wood preservatives, Table 2H Preservatives (other than wood preservatives), Table 2I Plasticisers (migration) and Colorfastness to Perspiration</i>
MS_0023811_en 2017-07	Work Instruction for Determination of Benzene, Toluene, Xylene & Ethyl benzene by GC-MS
BVL B 80.32-1 1981-11	Determination of the vinylchloride monomer content in commodity goods
ISO 1833-1 2006/Cor 1:2009-12	Quantitative chemical analysis - Part 1: General principles of testing
ISO 1833-2 2006-06	Quantitative chemical analysis - Part 2: Ternary fibre mixtures
ISO 1833-4 2017-08	Quantitative chemical analysis - Part 4: Mixtures of certain protein and certain other fibres (method using hypochlorite)
ISO 1833-5 2006-06	Quantitative chemical analysis - Part 5: Mixtures of viscose, cupro or modal and cotton fibres (method using sodium zincate)
ISO 1833-6 2018-10	Quantitative chemical analysis - Part 6: Mixtures of viscose or certain types of cupro or modal or lyocell and cotton fibres (method using formic acid and zinc chloride)

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ISO 1833-7 2017-08	Quantitative chemical analysis - Part 7: Mixtures of polyamide and certain other fibres (method using formic acid)
ISO 1833-11 2017-08	Quantitative chemical analysis - Part 11: Mixtures of cellulose and polyester fibres (method using sulfuric acid)
ISO 1833-12 2006-06	Quantitative chemical analysis - Part 12: Mixtures of acrylic, certain modacrylics, certain chlorofibres, certain elastanes and certain other fibres (method using dimethylformamide)

3 Physico-chemical and chemical tests of materials and products intended to come into contact with foodstuffs

Directive 1984/500/EEC 1984-10 Amendment 2005/31/EC 2005-04	Ceramic articles intended to come into contact with foodstuffs <i>(Only for the determination of lead and cadmium)</i>
EN 1388-1 1995-10	Materials and articles in contact with foodstuffs - Silicate surfaces - Determination of the release of lead and cadmium from ceramic ware
EN 1388-2 1995-10	Materials and articles in contact with foodstuffs - Silicate surfaces - Determination of the release of lead and cadmium from silicate surfaces other than ceramic ware
MS_0009134_en 2017-07	Test instruction for Leachable Heavy metal from food container
MS_0023766_en 2017-07	Work instruction for Determination of global migration from plastic materials
MS_0023294_en 2017-06	Determination of migrating Li, Be, Al, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Mo, Ag, Cd, Sn, Sb, Ba, Hg, Tl and Pb from metallic commodities intended to come into contact with foodstuffs by ICP-MS and ICP-OES
DIN 10959 2005-07	Sensory analysis - Determination of sensitivity of taste
MS_0007095_en 2016-04	Work Instruction for Sensory analysis- Determination of the sensitivity of taste according to DIN 10959
MS_0006596_en 2018-09	Test instruction for Volatile Organic Compounds in silicone

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EN 645 1993-10	Work instruction for Determination of heavy metals in paper and board for food contact extracted with cold water
EN 1541 2001-04	Paper and board intended to come into contact with foodstuffs. Determination of formaldehyde in an aqueous extract
MS_0010797_en 2018-08	Determination of formaldehyde in paper according to BS EN 645 and BS EN 1541
MS_0023206_en 2017-06	Work instruction for Determination of heavy metals in paper and board for food contact extracted with cold water
MS_0024399_en 2017-07	Work instruction for Determination of the certain elements in plastic intended for use in contact with foodstuff

4 Physical tests of textiles

ISO 12945-2 2000-07	Determination of fabric propensity to surface fuzzing and pilling – Part 2: Modified Martindale method
ISO 811 2018-03	Determination of resistance to water penetration. Hydrostatic pressure test
ISO 105-B02 2014-09	Test for colour fastness - Part B02: Colour fastness light to artificial light: Xenon arc fading lamp test
ISO 105-C06 2010-03	Test for colour fastness - Part C06: Colour fastness to domestic and commercial laundering
ISO 105-E01 2013-03	Test for colour fastness - Part E01: Colour fastness to water
ISO 105-E02 2013-03	Test for colour fastness - Part E02: Colour fastness to sea water
ISO 105-E04 2013-03	Test for colour fastness - Part E04: Colour fastness to perspiration
ISO 105-X12 2016-06	Test for colour fastness – Part X 12: Colour fastness to rubbing

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ISO 105-D01 2010-05	Textiles — Tests for colour fastness — Part D01: Colour fastness to drycleaning using perchloroethylene solvent
ISO 5077 2007-02	Determination of dimensional change in washing and drying
ISO 3759 2011-05	Preparation, marking and measuring of fabric specimens and garments in tests for determination of dimensional change
ISO 6330 2012-04	Domestic washing and drying procedures for textile testing
ISO 13934-2 2014-02	Tensile properties of fabrics - part 2: determination of maximum force using the grab method
ISO 13936-1 2004-04	Determination of the slippage resistance of yarns at a seam in woven fabrics - part 1: fixed seam opening method
ISO 13937-1 2000-04/Cor1:2004-10	Tearing properties of fabrics - part 1: Determination of tear force using ballistic pendulum method (Elmendorf)
ISO 12947-2 2016-12	Determination of the abrasion resistance of fabrics by the martindale method - part 2: Determination of specimen breakdown
DIN 53160-1 2010-10	Resistant to artificial saliva
DIN 53160-2 2010-10	Resistant to artificial sweat
DIN EN 16732 2016-05	Slider fastness (zips) - specification
ISO 9237 1995-06	Textiles - Determination of permeability of fabrics to air
EN 12127 1997-10	Textiles - fabrics - determination of mass per unit area using small samples
ISO 4920 2012-04	Textiles - determination of resistance to surface wetting (spray test)
ISO 13934-1 2013-04	Tensile properties of fabrics - part 1: determination of maximum force and elongation at maximum force using the strip method

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ISO 13937-2 2000-04	Tearing properties of fabrics - part 2: Determination of tear force of trouser-shaped test specimens (single tear method)
AATCC 135 2018-01	Dimensional changes of fabrics after home laundering
AATCC 150 2018	Dimensional changes of garments after home laundering
16 CFR PART 1610 2019 -02	Standard for the flammability of clothing textiles
ASTM D 1230 2017-07	Standard test method for flammability of apparel textiles
AATCC 127 2018-07	Water resistance: hydrostatic pressure test
AATCC 22 2017	Water repellency: spray test
AATCC 8 2016	Colorfastness to crocking: AATCC crockmeter method
AATCC 61 2013	Colorfastness to laundering, home and commercial: accelerated
AATCC 15 2013	Colorfastness to perspiration
AATCC 107 2013	Colorfastness to water
AATCC 132 2013	Colorfastness to drycleaning
ASTM D 737 2018-01	Standard test method for air permeability of textile fabrics
ASTM D 1424-09 (2013) e1 2013-07	Standard test method for tearing strength of fabrics by falling-pendulum type (Elmendorf) apparatus
ASTM D 5034-09 (2017) 2017-07	Standard test method for breaking strength and elongation of textile fabrics (grab test)

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ISO 3801 1977-09	Woven fabrics - determination of mass per unit length and per unit area
ISO 13936-2 2004-04	Determination of the slippage resistance of yarns at a seam in woven fabric - Part 2: fixed load method
ISO 105-X18 2007-08	Tests for colour fastness - Part X18: Assessment of the potential to phenolic yellowing of materials
ISO 13938-1 1999-08	Bursting properties of fabric - Part 1: Hydraulic method for determination of bursting strength and bursting distension
ISO 13938-2 1999-08	Bursting properties of fabric- Part 2: Pneumatic method for determination of bursting strength and bursting distension
ISO 7211-2 1984-03	Woven fabrics - construction - methods of analysis - Part 2: determination of number of threads per unit length
ISO 7211-5 1984-03	Woven fabrics - construction - methods of analysis - Part 5: determination of linear density of yarn removed from fabric
EN 14878 2007-05	Textiles - Burning behaviour of children's nightwear - Specification
EN 14682 2014-11	Safety of children's clothing - Cords and drawstrings on children's clothing – Specifications
16 CFR Part 1615 2019-02	Standard for the Flammability of Children's Sleepwear: Sizes 0 through 6X (FF 3-71)
16 CFR Part 1616 2019-02	Standard for the Flammability of Children's Sleepwear: Sizes 7 through 14 (FF 5-74)

5 Physical testing of toys

EN 71-1:2014+A1 2018-06 BS EN 71-1:2014+A1 2018-07 DIN EN 71-1:2018 2018-12	Safety of toys - Part 1 : Mechanical and physical properties <i>(here only chapter 8)</i>
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EN 71-2:2011+A1:2014 2014-03 BS EN 71-2:2011+ A1:2014 2014-05 DIN EN 71-2:2011+ A1:2014 2014-07	Safety of toys – Part 2: Flammability <i>(here only Chapter 5)</i>
EN 71-8:2018 2018-01 BS EN 71-8:2018 2018-02 DIN EN 71-8:2018 2018-03	Safety of toys - Part 8: Activity toys for domestic use <i>(here only Chapter 6)</i>
ISO 8124-1 2018-03 AS/NZS ISO 8124-1 2016 -06	Safety of toys - Part 1 : Safety aspects related to mechanical and physical properties <i>(here only Chapter 5, except 5.1)</i>
ISO 8124-2 2014-08 AS/NZS ISO 8124-2 2016-06	Safety of toys - Part2: Flammability <i>(here only Chapter 5, except 5.1)</i>
ISO 8124-3:2010 Amd 2:2018 2018-09 AS/NZS ISO 8124-3: 2012+A1:2016 2016-06	Safety of toys - Part 3: Migration of certain elements

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ASTM F 963-17 2017-08	<p>Standard Consumer Safety Specification for Toy Safety</p> <p>8.5 Normal use testing</p> <p>8.6 Abuse testing</p> <p>8.7 Impact Test</p> <p>8.8 Torque test for removal of components</p> <p>8.9 Tension test for removal of components</p> <p>8.10 Compression test</p> <p>8.11 Tests for removal and snap-in wheel and axle assembly removal</p> <p>8.12 Flexure test</p> <p>8.13 Test for mouth-actuated toys and mouth-actuated projectile toys</p> <p>8.14 Projectiles</p> <p>8.15 Test for stability of ride-on toys or toy seats</p> <p>8.16 Pompoms</p> <p>8.17 Stalled motor test for battery-operated toys</p> <p>8.20 Tests for toys which produce noise</p> <p>8.21 Dynamic strength test for wheeled ride-on toys</p> <p>8.22 Packaging film thickness</p> <p>8.23 Test for loops and cords</p> <p>8.24 Yo Yo Elastic Tether Toy Test Methods</p> <p>8.25 Magnet test methods</p> <p>8.26 Test methods for locking mechanisms or other means</p> <p>8.27 Tests for toy chest lids and closures</p> <p>8.28 Test for overload of ride-on toys and toy seat</p> <p>8.29 Stuffing materials evaluation</p> <p>8.30 Expanding materials-test method</p>
16 CFR 1500.44 2002-01	Method for determining extremely flammable and flammable solids
16 CFR 1500.48 2017-01	Technical requirements for determining a sharp point in toys and other articles intended for use by children under 8 years of age d) sharp point test method
16 CFR 1500.49 2017-01	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 - not over 36 months of age d) sharp point test method
16 CFR 1500.50 2017-03	Test methods for simulating use and abuse of toys and other articles intended for use by children
16 CFR 1500.51 2017-01	Test methods for simulating use and abuse of toys and other articles intended for use by children 18 months of age or less

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16 CFR 1500.52 2017-01	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
16 CFR 1500.53 2017-01	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
16 CFR 1501 2017-01	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
EN 1400:2013+A1:2014	Child use and care articles. Soothers for babies and young children - Safety requirements and test methods
EN 14350-1:2004	Child use and care articles - Drinking equipment - Part 1: General and mechanical requirements and tests
EN 71-14:2018 2018-12	Safety of toys - Part 14: Trampolines for domestic use

6 Biodegradable materials

ISO 14855-2 2018-12	Determination of the ultimate aerobic biodegradability of plastic materials under controlled composting conditions - Method by analysis of evolved carbon dioxide - Part 2: Gravimetric measurement of carbon dioxide evolved in a laboratory-scale test
ASTM D 5338-15 2015-06	Standard Test Method for Determining Aerobic Biodegradation of Plastic Materials Under Controlled Composting Conditions. Incorporating Thermophilic Temperatures

Abbreviations used:

AATCC	American Association of Textile Chemists and Colorists
ASTM	American Society for Testing and Materials
CPSC	Consumer Product Safety Commission
DIN	Deutsches Institut für Normung
EN	European Standard
ISO	International Organisation for Standardisation
IEC	International Electrotechnical Commission
LFGB	Lebensmittel- und Futtermittelgesetzbuch
RoHS	Directive 2011/65/EC "Restriction of the use of certain hazardous substances in electrical and electronic equipment"
TS	Technical Specification
SNV	Swiss Association for Standardization
MS-000XXXX_en	Laboratory in-house test method of TÜV Rheinland Greater China