

# Deutsche Akkreditierungsstelle GmbH

## Annex to the Accreditation Certificate D-PL-17072-01-00 according to DIN EN ISO/IEC 17025:2018

**Valid from: 25.02.2020**

Date of issue: 18.05.2020

Holder of certificate:

**Weber & Leucht GmbH**  
**Am Röhlingsberg 20, 36043 Fulda**

Tests in the fields:

**Tests for colour fastness, selected mechanical tests, determination of usage properties, mechanical and physico-chemical analysis of fabrics, textiles and textile products;  
determination of usage properties of cleaning agents, detergents and care products**

**The laboratory is permitted within the specified testing fields, without being required to inform and obtain prior approval from DAkKS,**

<sup>1)</sup> **the free choice of standard or equivalent testing methods.**

<sup>2)</sup> **the modification, development and refinement of testing methods.**

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

### **Tests for colour fastness** <sup>3)</sup>

DIN EN ISO 105-A01 2010-05	Textiles - Tests for colour fastness - Part A01: General principles of testing
DIN EN ISO 105-A04 1999-10	Textiles - Tests for colour fastness - Part A04: Method for the instrumental assessment of the degree of staining of adjacent fabrics

This document is a translation. The definitive version is the original German annex to the accreditation certificate.

Abbreviations used: see last page

*The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH.  
<https://www.dakks.de/en/content/accredited-bodies-dakks>*

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DIN EN ISO 105-A05 1997-07	Textiles - Tests for colour fastness - Part A05: Instrumental assessment of change in colour for determination of grey scale rating
DIN EN ISO 105-C06 2010-08	Textiles - Tests for colour fastness - Part C06: Colour fastness to domestic and commercial laundering
DIN EN ISO 105-C08 2010-08	Textiles - Tests for colour fastness - Part C08: Colour fastness to domestic and commercial laundering using a non-phosphate reference detergent incorporating a low-temperature bleach activator
DIN EN ISO 105-C09 2007-10	Textiles - Tests for colour fastness - Part C09: Colour fastness to domestic and commercial laundering - Oxidative bleach response using a non-phosphate reference detergent incorporating a low temperature bleach activator
DIN EN ISO 105-C10 2007-06	Textiles - Tests for colour fastness - Part C10: Colour fastness to washing with soap or soap and soda
DIN EN ISO 105-C12 2006-04	Textiles - Tests for colour fastness - Part C12: Colour fastness to industrial laundering
DIN EN ISO 105-D01 2010-10	Textiles - Tests for colour fastness - Part D01: Colour fastness to dry cleaning using perchloroethylene solvent
DIN EN ISO 105-D02 2016-12	Textiles - Tests for colour fastness - Part D02: Colour fastness to rubbing: Organic solvents
DIN EN ISO 105-E01 2013-06	Textiles - Tests for colour fastness - Part E01: Colour fastness to water
DIN EN ISO 105-E02 2013-06	Textiles - Tests for colour fastness - Part E02: Colour fastness to sea water
DIN EN ISO 105-E03 2010-08	Textiles - Tests for colour fastness - Part E03: Colour fastness to chlorinated water (swimming-pool water)
DIN EN ISO 105-E04 2013-08	Textiles - Tests for colour fastness - Part E04: Colour fastness to perspiration
DIN EN ISO 105-E05 2010-12	Textiles - Tests for colour fastness - Part E05: Colour fastness to spotting: Acid

**-Translation-**

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DIN EN ISO 105-E06 2006-10	Textiles - Tests for colour fastness - Part E06: Colour fastness to spotting: Alkali
DIN EN ISO 105-E07 2010-08	Textiles - Tests for colour fastness - Part E07: Colour fastness to spotting: Water
DIN EN ISO 105-J02 1999-09	Textiles - Tests of colour fastness - Part J02: Instrumental assessment of relative whiteness
DIN EN ISO 105-J03 2010-02	Textiles - Tests for colour fastness - Part J03: Calculation of colour differences
DIN EN ISO 105-J05 2007-07	Textiles - Tests for colour fastness - Part J05: Method for the instrumental assessment of the colour inconstancy of a specimen with change in illuminant (CMCCON02)
DIN EN 20105-N01 1995-03	Textiles - Tests for colour fastness - Part N01: Colour fastness to bleaching: Hypochlorite
DIN EN ISO 105-P01 1995-04	Textiles - Tests for colour fastness - Part P01: Colour fastness to dry heat (excluding pressing)
DIN EN ISO 105-X11 1996-10	Textiles - Tests for colour fastness - Part X11: Colour fastness to hot pressing
DIN EN ISO 105-X12 2016-11	Textiles - Tests for colour fastness - Part X12: Colour fastness to rubbing
DIN EN ISO 105-B02 2014-11	Textiles - Tests for colour fastness - Part B02: Colour fastness to artificial light: Xenon arc fading lamp test
DIN EN ISO 105-B04 1997-05	Textiles - Tests for colour fastness - Part B04: Colour fastness to artificial weathering: Xenon arc fading lamp test
DIN EN ISO 105-B06 2004-07	Textiles - Tests for colour fastness - Part B06: Colour fastness and ageing to artificial light at high temperatures: Xenon arc fading lamp test
DIN EN ISO 105-B07 2009-10	Textiles - Tests for colour fastness - Part B07: Colour fastness to light of textiles wetted with artificial perspiration

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**Detremination of strength parameter on textiles and plastics-coated fabrics by mechanical and technological test <sup>1)</sup>**

DIN EN ISO 13934-1 2013-08	Textiles - Tensile properties of fabrics - Part 1: Determination of maximum force and elongation at maximum force using the strip method
DIN EN ISO 13934-2 2014-06	Textiles - Tensile properties of fabrics - Part 2: Determination of maximum force using the grab method
DIN EN ISO 13935-1 2014-07	Textiles - Seam tensile properties of fabrics and made-up textile articles - Part 1: Determination of maximum force to seam rupture using the strip method
DIN EN ISO 13935-2 2014-07	Textiles - Seam tensile properties of fabrics and made-up textile articles - Part 2: Determination of maximum force to seam rupture using the grab method
DIN EN ISO 13936-1 2004-07	Textiles - Determination of the slippage resistance of yarns at a seam in woven fabrics - Part 1: Fixed seam opening method
DIN EN ISO 13936-2 2004-07	Textiles - Determination of the slippage resistance of yarns at a seam in woven fabrics - Part 2: Fixed load method
DIN EN ISO 13937-2 2000-06	Textiles - Tear properties of fabrics - Part 2: Determination of tear force of trouser-shaped test specimens (single tear method)
DIN EN ISO 13938-2 1999-10	Textiles - Bursting properties of fabrics - Part 2: Pneumatic method for determination of bursting strength and bursting distension
DIN EN 15598 2008-11	Textiles - Terry fabrics - Test method for the determination of the resistance to pile loop extraction
DIN EN 29073-3 1992-08	Textiles - test method for nonwovens - part 3: determination of tensile strength and elongation
DIN EN ISO 9073-4 1997-09	Textiles - Test methods for nonwovens - Part 4: Determination of tear resistance
DIN ISO 34-1 2016-09	Rubber, vulcanized or thermoplastic - Determination of tear strength - Part 1: Trouser, angle and crescent test pieces

**-Translation-**

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DIN 53504 2017-03	Testing of rubber - Determination of tensile strength at break, tensile stress at yield, elongation at break and stress values in a tensile test
DIN EN ISO 1421 2017-03	Rubber- or plastics-coated fabrics - Determination of tensile strength and elongation at break
DIN EN ISO 4674-1 2017-03	Rubber- or plastics-coated fabrics - Determination of tear resistance - Part 1: Constant rate of tear methods
DIN 53530 1981-02	Testing of organic materials; Separation test on fabric plies bonded together
DIN EN ISO 32100 2019-02	Rubber- or plastics-coated fabrics - Physical and mechanical tests - Determination of flex resistance by the flexometer method

**Dimensional determination without restriction to dimension and method of analysis <sup>1)</sup>**

DIN EN 1773 1997-03	Textiles - Fabrics - Determination of width and length
DIN EN ISO 5077 2008-04	Textiles - Determination of dimensional change in washing and drying
DIN EN 1049-2 1994-02	Textiles - woven fabrics - construction - methods of analysis - part 2: determination of number of threads per unit length
DIN EN 14971 2006-04	Textiles - Knitted fabrics - Determination of number of stitches per unit length and unit area
DIN EN ISO 3759 2011-08	Textiles - Preparation, marking and measuring of fabric specimens and garments in tests for determination of dimensional change

**Determination of wear and abrasion resistance of fabrics after Martindale tests (scrub resistance an examination of the surfaces) <sup>1)</sup>**

DIN EN ISO 12947-1 2007-04	Textiles - Determination of the abrasion resistance of fabrics by the Martindale method - Part 1: Martindale abrasion testing apparatus
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DIN EN ISO 12947-2 2017-03	Textiles - Determination of the abrasion resistance of fabrics by the Martindale method - Part 2: Determination of specimen breakdown
DIN EN ISO 12947-3 2007-04	Textiles - Determination of abrasion resistance of fabrics by the Martindale method - Part 3: Determination of mass loss
DIN EN ISO 12947-4 2007-04	Textiles - Determination of abrasion resistance of fabrics by the Martindale method - Part 4: Assessment of appearance change
DIN EN ISO 12945-2 2000-11	Textiles - Determination of fabric propensity to surface fuzzing and to pilling - Part 2: Modified Martindale method
DIN EN ISO 5470-2 2003-10	Rubber- or plastics-coated fabrics - Determination of abrasion resistance - Part 2: Martindale abrader
DIN EN ISO 11998 2006-10	Paints and varnishes - Determination of wet-scrub resistance and cleanability of coatings
SP_0038-1 SP_0038-2 <sup>+) </sup> 2018-10	Assessment of the cleaning performance and surface protection properties of cleaning agents (Nordic Ecolabelling Test Version 2.0, R35 and R37)
SP_0040 <sup>+) </sup> 2016-03	Assessment of the cleaning performance of all-purpose cleaners following the IKW method "Recommendation for the Quality Assessment of the Product Performance of All-Purpose Cleaners"

**Pre-treatment of textiles <sup>1)</sup> (washing/laundrying and Xenon exposure)**

DIN EN ISO 6330 2013-02	Textiles - Domestic washing and drying procedures for textile testing
DIN EN ISO 15797 2018-05	Textiles - Industrial washing and finishing procedures for testing of workwear
SP0044 <sup>+) </sup> 2017-12	Chemothermal laundry disinfection
DIN EN ISO 12138 2018-05	Textiles - Domestic laundrying procedures for textile fabrics prior to flammability testing

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DIN EN ISO 4892-2 2013-06	Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps
<b>Technological tests</b> <sup>3)</sup>	
DIN EN 12127 1997-12	Textiles - Fabrics - Determination of mass per unit area using small samples
DIN 53923 1978-01	Testing of textiles - determination of water absorption of textile fabrics
DIN EN ISO 15487 2018-12	Textiles - Method for assessing appearance of apparel and other textile end products after domestic washing and drying
AATCC 118-2013 <sup>+) </sup> 2013-01	Textiles - Oil-Repellency - Hydrocarbon Resistance Test
DIN EN ISO 14419 2010-08	Textiles - Oil repellency - Hydrocarbon resistance test
DIN EN ISO 4920 2012-12	Textile fabrics - Determination of resistance to surface wetting (spray test)
AATCC 22-2017 <sup>+) </sup> 2017-01	Textiles - Water Repellency: Spray Test
DIN 53924 1997-03	Testing of textiles - Velocity of soaking water of textile fabrics (method by determining the rising height)
DIN 53856 2001-02	Testing of textiles - Determination of the mass portion of warp and weft
DIN EN ISO 868 2003-10	Plastics and ebonite - Determination of indentation hardness by means of a durometer (Shore hardness)
EN ISO 15496 2018-05	Textiles - Measurement of water vapour permeability of textiles for the purpose of quality control
DIN 55660-2 2011-12	Paints and varnishes - Wettability - Part 2: Determination of the free surface energy of solid surfaces by measuring the contact angle
DIN EN ISO 811 2018-08	Textiles - Determination of resistance to water penetration - Hydrostatic pressure test

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DIN EN ISO 2813  
2015-02                      Paints and varnishes - Determination of gloss value at 20°, 60° and 85°

DIN EN ISO 13015  
2013-12                      Woven fabrics - Distortion - Determination of skew and bow

**Thermoanalytics <sup>3)</sup>**

DIN EN ISO 11357-6  
2018-07                      Plastics - Differential scanning calorimetry (DSC) - Part 6: Determination of oxidation induction time (isothermal OIT) and oxidation induction temperature (dynamic OIT)

DIN EN ISO 11357-3  
2018-07                      Plastics - Differential scanning calorimetry (DSC) - Part 3: Determination of temperature and enthalpy of melting and crystallization

DIN EN ISO 11357-2  
2014-07                      Plastics - Differential scanning calorimetry (DSC) - Part 2: Determination of glass transition temperature and glass transition step height

**Determination of pH <sup>3)</sup>**

DIN EN ISO 3071  
2006-05                      Textiles - Determination of pH of aqueous extract

**Analysis of fibres <sup>3)</sup>**

DIN EN ISO 17751-1  
2016-11                      Textiles - Quantitative analysis of cashmere, wool, other specialty animal fibers and their blends - Part 1: Light microscopy method

DIN EN ISO 17751-2  
2016-11                      Textiles - Quantitative analysis of cashmere, wool, other specialty animal fibers and their blends - Part 2: Scanning Electron Microscopy method

SP\_0045 <sup>+)</sup>   
2017-11                      Qualitative Fiber Analysis: Light and scanning electron microscopy

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**UV-/VIS-/NIR- spectroscopy of textiles, Sheet Materials and these surfaces  
(spectroscopy) <sup>1)</sup>**

DIN 53236 2018-02	Colouring materials - Conditions of measurement and evaluation for the determination of colour differences for paint coatings, similar coatings and plastics
SP0047-1 <sup>+) </sup> 2017-08	Color Measurement of high-visibility clothing - Color value and luminous factor in accordance to DIN EN ISO 20471: 2017-03
SP0046 <sup>+) </sup> 2017-12	Whiteness index measurement of textiles
DIN 5033-7 2014-10	Colorimetry - Part 7: Measuring conditions for object colours
ASTM E1164 2012	Standard Practice for Obtaining Spectrometric Data for Object-Color Evaluation
CIE 015 2018-10	Colorimetry 3rd Edition
DIN EN ISO 11664-1 2011-04	Colorimetry - Part 1: CIE standard colorimetric observers
DIN EN 13758-1 2007-03	Textiles - Solar UV protective properties - Part 1: Method of test for apparel fabrics
AS/NZS 4399 2017-09	Sun protective clothing - Evaluation and classification
AATCC TM 183 2014-01	Transmittance or Blocking of Erythemally Weighted UltraViolet Radiation through Fabrics
ASTM E424 - 71 2015	Standard Test Methods for Solar Energy Transmittance and Reflectance (Terrestrial) of Sheet Materials

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**Abbreviations used:**

AATCC	American Association of Textiles Chemists and
Colorists ASTM	American Standard Testing Method
CIE	International Commission on Illumination
DIN	German Institute for Standardization
EN	European Standard
ISO	International Organization for Standardization
SP	In house method of the Weber & Leucht GmbH

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