

Deutsche Akkreditierungsstelle

Annex to the Partial Accreditation Certificate D-PL-17362-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: 23.02.2023

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This annex is a part of the accreditation certificate D-PL-17362-01-00.

Holder of partial accreditation certificate:

FILK Freiberg Institute gGmbH Meißner Ring 1-5, 09599 Freiberg

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

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

Tests in the fields:

physical, physico-chemical and mechanical-technological testing of leather, synthetics and coated textiles, collagen and pericardium; testing on personal protective equipment

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

This certificate annex is only valid together with the written accreditation certificate and 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.

Abbreviations used: see last page

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1 Physical and mechanical-technological testing

1.1 Strength	n properties; ter	nsile, compressive and tear propagation properties
DIN ISO 48-4 2021-02		Rubber, vulcanized or thermoplastic - Determination of hardness - Part 4: Indentation hardness by durometer method (here: <i>only Shore-Hardness A and D</i>)
DIN EN ISO 527- 2019-12	1	Plastics - Determination of tensile properties - Part 1: General principles
DIN EN ISO 527- 2012-06	2	Plastics - Determination of tensile properties - Part 2: Test conditions for moulding and extrusion plastics
DIN EN ISO 527- 2019-02	3	Plastics - Determination of tensile properties - Part 3: Test conditions for films and sheets
DIN EN ISO 844 2021-07		Rigid cellular plastics - Determination of compression properties (here: <i>only method A</i>)
DIN EN ISO 868 2003-10		Plastics and ebonite - Determination of indentation hardness by means of a durometer (Shore hardness)
DIN EN ISO 1421 2017-03	L	Rubber- or plastics-coated fabrics - Determination of tensile strength and elongation at break
DIN EN ISO 1798 2008-04	3	Flexible cellular polymeric materials - Determination of tensile strength and elongation at break
DIN EN ISO 1856 2020-11	5	Flexible cellular polymeric materials - Determination of compression set
DIN EN 1875-3 1998-02		Rubber- or plastics-coated fabrics - Determination of tear strength - Part 3: Trapezoidal method
DIN EN ISO 2411 2018-02	L	Rubber- or plastics-coated fabrics - Determination of coating adhesion
DIN EN ISO 3376 2020-08	5	Leather - Physical and mechanical tests - Determination of tensile strength and percentage elongation
DIN EN ISO 3377 2012-03	-1	Leather - Physical and mechanical tests - Determination of tear load - Part 1: Single edge tear



DIN EN ISO 3377-2 2016-07	Leather - Physical and mechanical tests - Determination of tear load - Part 2: Double edge tear
DIN EN ISO 3378 2003-10	Leather - Physical and mechanical tests; Determination of resistance to grain cracking and grain crack index
DIN EN ISO 3386-1 2015-10	Polymeric materials, cellular flexible - Determination of stress-strain characteristics in compression - Part 1: Low-density materials
DIN EN ISO 3386-2 2010-09	Flexible cellular polymeric materials - Determination of stress-strain characteristics in compression - Part 2: High-density materials
DIN EN ISO 4674-1 2017-03	Rubber- or plastics-coated fabrics - Determination of tear resistance - Part 1: Constant rate of tear methods
DIN EN ISO 6383-1 2016-05	Plastics - Film and sheeting - Determination of tear resistance - Part 1: Trouser tear method
DIN EN ISO 9073-4 2021-05	Nonwovens - Test methods - Part 4: Determination of tear resistance by the trapezoid procedure
DIN EN ISO 11644 2009-09	Leather - Test for adhesion of finish
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 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
	- Part 1: Determination of maximum force to seam rupture using the
2014-07 DIN EN ISO 13937-2	 Part 1: Determination of maximum force to seam rupture using the strip method Textiles - Tear properties of fabrics - Part 2: Determination of tear force



DIN EN ISO 17236 2016-07	Leather - Physical and mechanical tests - Determination of extension set
DIN EN ISO 17696 2018-12	Footwear - Test methods for uppers, lining and insocks - Tear strength
DIN EN ISO 17706 2018-12	Footwear - Test methods for uppers - Tensile strength and elongation
DIN EN ISO 23910 2019-10	Leather - Physical and mechanical tests - Measurement of stitch tear resistance
DIN 53325 1974-01	Testing of leather; ball compression test for determination of grain expansion capacity and the force of fracture with the lastometer (<i>withdrawn standard</i>)
DIN 53354 1981-02	Testing of artificial leather; tensile test (withdrawn standard)
DIN 53356 1982-08	Testing of artificial leather and similar sheet materials; tear growth test (withdrawn standard)
DIN 53357 1982-10	Testing of plastics sheets; adhesion test (here: <i>only method A</i>) (<i>withdrawn standard</i>)
DIN 53360 1982-05	Testing artificial leather and similar sheet materials; determination of the total elongation (statical elongation) and irreversible elongation (<i>withdrawn standard</i>)
DIN 53363 2003-10	Testing of plastic films - Tear test using trapezoidal test specimen with incision
DIN 54301 1977-07	Testing of textiles; determination of the needle tearing out resistance of nonwoven textiles (withdrawn standard)
PV 3909 2019-04	Non-metallic planar materials - Measurement of static and permanent elongation (no flexibility)
PV 3919 2010-01	Fibre fleece damping - Determination of compression hardness (without component test) (no flexibility)



FILK-QMA-1088 2019-10	Collagen fleece - Determination of tensile strength and percentage elongation (no flexibility)
FILK-QMA-1095 2019-10	Perikard - Physical and und mechanical testing - Determintaion of tensile strength and percentage elongation (no flexibility)
1.2 Toughness properties	
DIN EN ISO 179-1 2010-11	Plastics - Determination of Charpy impact properties - Part 1: Non- instrumented impact test
DIN EN ISO 8256 2005-05	Plastics - Determination of tensile-impact strength (here: <i>only method A</i>)
DIN 53435 2018-09	Testing of plastics - Bending test and impact test on dynstat test specimens
1.3 Deformation behaviou	r; bending properties
DIN EN ISO 178 2019-08	Plastics - Determination of flexural properties (here: without method IV, measurement with deflection measuring device)
DIN EN 1876-1 1998-01	Rubber- or plastics-coated fabrics - Low temperatures tests - Part 1: Bending test
DIN EN 1876-2 1998-01	Rubber- or plastics-coated fabrics - Low temperatures tests - Part 2: Impact test on loop
DIN EN ISO 3379 2015-12	Leather - Determination of distension and strength of surface (Ball burst method)
DIN EN ISO 14087 2012-03	Leather - Physical and mechanical tests - Determination of bending force

Determination of bending force

(here: only method A: Three-point procedure)

properties

Fibre-reinforced plastic composites - Determination of flexural

Rubber or plastic coated fabrics - Physical and mechanical test -

DIN EN ISO 14125

DIN EN ISO 22751

2011-05

2020-12



DIN 53121 2014-08	Testing of paper and board - Determination of the bending stiffness by the beam method
DIN 53350 1980-01	Testing of plastics films and coated textile fabrics, manufactured using plastics; determination of stiffness in bending, method according to Ohlsen
VDA 230-209 2008-05	Leather and Plastic Roll Stock and Textiles for Motor Vehicle - Determination of Flexural Properties
PV 3903 2009-07	Non-Metallic Planar Materials - Measurement of Bending Stiffness (no flexibility)
BMW AA-0551 2020-05	Bending Stiffness - 2-point procedure (no flexibility)

1.4 General material properties, basic parameters, metric and gravimetric properties

DIN EN ISO 845 2009-10	Cellular plastics and rubbers - Determination of apparent density
DIN EN ISO 1183-1 2019-09	Plastics - Methods for determining the density of non-cellular plastics - Part 1: Immersion method (method A), liquid pycnometer method (method B) and titration method (method C) (here: <i>only method A</i>)
DIN EN ISO 1923 1995-06	Cellular plastics and rubbers - Determination of linear dimensions
DIN EN ISO 2286-2 2017-01	Rubber- or plastics-coated fabrics - Determination of roll characteristics - Part 2: Methods for determination of total mass per unit area, mass per unit area of coating and mass per unit area of substrate
DIN EN ISO 2286-3 2017-01	Rubber- or plastics-coated fabrics - Determination of roll characteristics - Part 3: Method for determination of thickness
DIN EN ISO 2420 2017-05	Leather - Physical and mechanical tests - Determination of apparent density and mass per unit area
DIN EN ISO 2589 2016-07	Leather - Physical and mechanical tests - Determination of thickness
DIN ISO 4593 2019-06	Plastics - Film and sheeting - Determination of thickness by mechanical scanning
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DIN EN ISO 5084 1996-10	Textiles - Determination of thickness of textiles and textile products
DIN EN ISO 9073-2 1997-02	Textiles - Test methods for nonwovens - Part 2: Determination of thickness (here: <i>only method A</i>)
DIN EN 12127 1997-12	Textiles - Fabrics - Determination of mass per unit area using small samples
DIN EN ISO 14268 2013-03	Leather - Physical and mechanical tests - Determination of water vapour permeability
DIN EN ISO 17130 2021-06	Leather - Physical and mechanical tests - Determination of dimensional change
DIN EN ISO 17186 2012-03	Leather - Physical and mechanical tests - Determination of surface coating thickness
DIN EN ISO 17229 2016-06	Leather - Physical and mechanical tests - Determination of water vapour absorption
DIN 53122-1 2001-08	Testing of plastic and elastomer films, paper, board and other sheet materials - Determination of water vapour transmission - Part 1: Gravimetric method
DIN 53377 2021-11	Testing of plastic films - Determination of dimensional stability
FILK-QMA-1001 2019-10	Leather - Determination of thickness Leather (here: <i>Test instruction also for pericard and collagen fleece</i>) (no flexibility)

1.5 Surface properties; Tribological properties; Fastness and resistance properties

DIN EN ISO 105-A01 2010-05	Textiles - Tests for colour fastness - Part A01: General principles of testing
DIN EN 20105-A02 1994-10	Textiles; Tests for colour fastness - Part A02: Grey scale for assessing change in colour
DIN EN ISO 105-A03 2020-02	Textiles - Tests for colour fastness - Part A03: Grey scale for assessing staining



DIN EN ISO 105-A04 1999-10	Textiles - Tests for colour fastness - Part A04: Method for the instrumental assessment of the degree of staining of adjacent fabrics
DIN EN ISO 105-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-E01 2013-06	Textiles - Tests for colour fastness - Part E01: Colour fastness to water
DIN EN ISO 105-E04 2013-08	Textiles - Tests for colour fastness - Part E04: Colour fastness to perspiration
DIN EN ISO 105-E07 2010-08	Textiles - Tests for colour fastness - Part E07: Colour fastness to spotting: Water
DIN EN ISO 105-E16 2007-09	Textiles - Tests for colour fastness - Part E16: Colour fastness to water spotting on upholstery fabrics
DIN EN ISO 105-X12 2016-11	Textiles - Tests for colour fastness - Part X12: Colour fastness to rubbing
DIN EN ISO 2409 2020-12	Paints and varnishes - Cross-cut test
DIN EN ISO 2813 2015-02	Paints and varnishes - Determination of gloss value at 20°, 60° and 85°
DIN EN ISO 3668 2020-05	Paints and varnishes - Visual comparison of colour of paints
DIN EN ISO 5402-1 2017-05	Leather - Determination of flex resistance - Part 1: Flexometer method
DIN EN ISO 5403-1 2012-03	Leather - Determination of water resistance of flexible leather - Part 1: Repeated linear compression (penetrometer)
DIN EN ISO 5470-1 2017-04	Rubber- or plastics-coated fabrics - Determination of abrasion resistance - Part 1: Taber abrader
DIN EN ISO 5470-2 2021-11	Rubber- or plastics-coated fabrics - Determination of abrasion resistance - Part 2: Martindale abrader
DIN ISO 9352 2018-08	Plastics - Determination of resistance to wear by abrasive wheels



DIN EN ISO 11640 2018-11	Leather - Tests for colour fastness - Colour fastness to cycles of to-and- fro rubbing
DIN EN ISO 11641 2013-02	Leather - Tests for colour fastness - Colour fastness to perspiration
DIN EN ISO 11642 2013-02	Leather - Tests for colour fastness - Colour fastness to water
DIN EN ISO 12945-2 2021-04	Textiles - Determination of fabric propensity to surface pilling, fuzzing or matting - Part 2: Modified Martindale method
DIN EN ISO 12947-2 2017-03	Textiles - Determination of the abrasion resistance of fabrics by the Martindale method - Part 2: Determination of specimen breakdown
DIN EN 14327 2004-03	Leather - Physical and mechanical tests - Determination of abrasion resistance of automotive leather
DIN EN ISO 15700 1999-10	Leather - Tests for colour fastness - Colour fastness to water spotting
DIN EN ISO 15701 2015-07	Leather - Tests for colour fastness - Colour fastness to migration into polymeric material
DIN EN 15973 2011-05	Rubber- or plastic-coated fabrics - Upholstery fabrics - Resistance to soiling
DIN EN ISO 17076-1 2020-05	Leather - Determination of abrasion resistance - Part 1: Taber [®] method
DIN EN ISO 17076-2 2011-09	Leather - Determination of abrasion resistance - Part 2: Martindale ball plate method
DIN EN ISO 17502 2013-08	Leather - Determination of surface reflectance
DIN EN ISO 17694 2016-10	Footwear - Test methods for uppers and lining - Flex resistance
DIN EN ISO 20433 2013-01	Leather - Tests for colour fastness - Colour fastness to crocking
DIN EN ISO 26082-1 2019-11	Leather - Physical and mechanical test methods for the determination of soiling - Part 1: Rubbing (Martindale) method



DIN EN ISO 32100	Rubber- or plastics-coated fabrics - Physical and mechanical tests -
2019-02	Determination of flex resistance by the flexometer method
DIN 53351 2003-09	Testing of artificial leather and similar shut materials - Behaviour at permanent folding (Flexometer-method) (<i>withdrawn standard</i>)
DIN 53359 2006-11	Testing of artificial leather and similar sheet materials - Flex cracking test
VDA 230-205 2021-10	Automotive leather - Determination loose grain effect
VDA 230-206 2021-10	Examination of the stick-slip behaviour of material pairs
VDA 230-211	Leather and Coated Textiles for Automotive Interior Trim –
2020-12	Determination of abrasion resistance by Martindal ball plate method
VDA 230-212 2021-09	Leather, Coated Textiles and Textiles for Automotive Interior Trim – Determining the soiling and cleaning properties – Method with standard soiled cloth
VDA 230-217	Plastic Roll Goods for Motor Vehicel Interior Trim – Test of Low
2018-10	Temperature Resistance
VDA 230-218	Plastic Roll Goods for Motor Vehicle Interiors - Test procedure for
2020-05	scratch restistance - scuffing
PV 3356	Textiles - Soiling and Cleaning Behavior
2020-05	(no flexibility)
PV 3906 2021-11	Non-Metallic Planar Materials - Testing of Abrasion Behavior (no flexibility
PV 3952	Plastic Interior Components - Testing of Scratch Resistance
2021-03	(no flexibility)
PV 3968	Leather - Soiling Behavior
2018-06	(no flexibility)



PV 3987 2016-11	Scrub Resistance (Micro-Scratch Resistance) of High-Gloss Surfaces in the Vehicle Interior (<i>no flexibility</i>)
BMW AA-0412 2020-07	Abrasion Test of Leather by Means of a Ball Plate (<i>no flexibility</i>)
BMW GS 97034-2 2021-04	Surface test of motor vehicle interior materials - Finger nail test (no flexibility)
BMW GS 97034-8 2021-04	Surface test of motor vehicle interior materials - Determination of the scratch inclination (<i>no flexibility</i>)
BMW GS 97034-9 2021-04	Surface test of motor vehicle interior materials - Scratch test (no flexibility)
BMW GS 97034-10 2021-04	Surface test of motor vehicle interior materials - Scratch and abrasion resistance
GMW 3208 2012-06	Rotary Abrasion Test, Taber [®] Type (no flexibility)

1.6 Ageing and material fatigue; Weathering properties and environmental simulations

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-B06 2020-12	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 2440 2020-03	Flexible and rigid cellular polymeric materials - Accelerated ageing tests
DIN EN ISO 6270-2 2018-04	Paints and varnishes - Determination of resistance to humidity - Part 2: Condensation (in-cabinet exposure with heated water reservoir) (here: <i>only constant condensation climate (CH)</i>)
DIN EN ISO 17228 2015-06	Leather - Tests for colour fastness - Change in colour with accelerated ageing



SAE J2412 2015-08	Accelerated Exposure of Automotive Interior Trim Components Using a Controlled Irradiance Xenon-Arc Apparatus
2013-08	controlled inadiance venori-Arc Apparatus
VDA 75202	Materials for motor vehicle interior equipment - Colour fastness
2001-08	examination and ageing behaviour to light at high temperatures - Xenon arc light
	(withdrawn standard)
PV 1303	Non-Metallic Materials - Xenon Arc Light Aging of Vehicle Interior
2021-05	Components (no flexibility)
BMW AA-0213	Condensation Water Constant Atmosphere Test
2018-02	(no flexibility)
GMW 14162	Colorfastness to Artificial Weathering
2016-11	(no flexibility)

2 Physico-chemical tests

2.1 Thermo-analytical tests

DIN EN ISO 11357-2 2020-08	Plastics - Differential scanning calorimetry (DSC) - Part 2: Determination of glass transition temperature and step height
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 11357-6 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 11358-1 2014-10	Plastics - Thermogravimetry (TG) of polymers - Part 1: General principles

2.2 Emission tests

ISO 6452	Rubber- or plastics-coated fabrics - Determination of fogging
2021-05	characteristics of trim materials in the interior of automobiles



DIN EN ISO 17071 2011-12	Leather - Physical and mechanical tests - Determination of fogging characteristics
DIN EN ISO 17226-3 2011-09	Leather - Chemical determination of formaldehyde content - Part 3: Determination of formaldehyde emissions from leather
DIN 75201 2011-11	Determination of the fogging characteristics of trim materials in the interior of automobiles
PV 3015 2019-03	Fogging Behaviour of Materials Used in the Vehicle Interior - Gravimetric Determination of Condensable Components (<i>no flexibility</i>)
PV 3341 1995-03	Non-Metallic Materials in Automotive Interior Trim - Determination of emission of organic compounds (<i>no flexibility</i>)
PV 3925 2021-01	Polymer materials - Measuring emissions of formaldehyde - Measuring method of the modified bottle method (<i>no flexibility</i>)
VDA 275 1994-07	Moulded composites and fleeces for vehicles - Determination of formaldehyde release - Test procedure called modified flask method
VDA 277 1995-01	Non-metallic materials of vehicle interior - Determination of emission of organic compounds
VDA 278 2016-05	Thermal Desorption Analysis of Organic Emissions for the Characterization of Non-Metallic Materials for Automobiles

3 Odour tests; sensory tests

PV 3900	Vehicle Interior Components - Odor Test
2019-04	(<i>no flexibility</i>)
VDA 270 2022-05	Determination of the odour characteristics of trim materials in motor vehicles

4 Tests on Personal Protective Equipment (PPE)

DIN EN 388	Protective gloves against mechanical risks
2019-03	(here: 6.1 abrasion resistance and 6.5 puncture resistance)



DIN EN 863 1995-11	Protective clothing, Mechanical properties - Test method: Puncture resistance
E DIN EN ISO 20344 2020-06	Personal protective equipment - Test methods for footwear (here: 6.6 Determination of water vapour permeability 6.7 Determination of water vapour absorption 6.8 Determination of water vapour coefficient)
5 Special analysis; C	Other methods
DIN EN ISO 4628-1 2016-07	Paints and varnishes - Evaluation of degradation of coatings - Designation of quantity and size of defects, and of intensity of uniform changes in appearance - Part 1: General introduction and designation system
DIN EN ISO 4628-2 2016-07	Paints and varnishes - Evaluation of degradation of coatings - Designation of quantity and size of defects, and of intensity of uniform changes in appearance - Part 2: Assessment of degree of blistering
DIN EN ISO 4628-4 2016-07	Paints and varnishes - Evaluation of degradation of coatings - Designation of quantity and size of defects, and of intensity of uniform changes in appearance - Part 4: Assessment of degree of cracking
DIN EN ISO 4628-5 2016-07	Paints and varnishes - Evaluation of degradation of coatings - Designation of quantity and size of defects, and of intensity of uniform changes in appearance - Part 5: Assessment of degree of flaking
DIN EN ISO 17131 2020-07	Leather - Identification of leather with microscopy (here: only scanning electron microscopy (SEM) and light microscopy)
FILK-QMA-1201 2019-10	Microscopic assessment of full grain of leather (<i>no flexibility</i>)



Abbreviations used:

BMW AA/GS	Group Standard of BMW AG
DIN	German institute for standardization
EN	European Standard
FILK-QMA	In-house method of the Forschungsinstituts für Leder- und Kunststoffbahnen gGmbH
GMW	General Motors Worldwide Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
PV	Group Standard of Volkswagen AG
SAE	Society of Automotive Engineers, Inc. Standard
VDA	German Association of the Automotive Industry