

Deutsche Akkreditierungsstelle

Annex to the Partial Accreditation Certificate D-PL-18869-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: 11.01.2024

Date of issue: 11.01.2024

This annex is a part of the accreditation certificate D-PL-18869-01-00.

Holder of partial accreditation certificate:

iLF Magdeburg GmbH
Fichtestraße 29, 39112 Magdeburg

with the location

iLF Magdeburg GmbH
Fichtestraße 29, 39112 Magdeburg

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 they conform to the principles of DIN EN ISO 9001.

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>.

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Tests in the fields:

characterisation of physical, mechanical and optical properties of coatings;
determination of resistance of coatings to liquids (chemical resistance tests);
environmental simulation tests on coatings, plastics, metallic materials, with or without corrosion protection and textiles (weathering tests, water condensation tests, corrosion tests, temperature and climate tests);
flexural tests, tensile tests and impact tests on plastics, rubber, adhesive bonds, textiles and metallic materials;
determination of burning behaviour of interior materials in motor vehicles (burning tests);

Within the given testing field marked with *, the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, the free choice of standard or equivalent testing methods. The listed testing methods are exemplary.

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

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

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1 Physical tests

1.1 Drying tests ***

DIN EN ISO 9117-3
2010-07 Paints and varnishes - Drying tests - Part 3: Surface-drying test using
ballotini

DIN EN ISO 9117-5
2012-11 Paints and varnishes - Drying tests - Part 5: Modified Bandow-Wolff
test

1.2 Determination of film thickness

1.2.1 Measurement of coating thickness by optical method *

DIN EN ISO 1463
2021-08 Metallic and oxide coatings - Measurement of coating thickness -
Microscopical method

DIN EN ISO 2808
2019-12 Paints and varnishes - Determination of film thickness

1.2.2 Measurement of coating thickness by magnetic method *

DIN EN ISO 2178
2016-11 Non-magnetic coatings on magnetic substrates - Measurement of
coating thickness - Magnetic method

DIN EN ISO 2360
2017-12 Non-conductive coatings on non-magnetic electrically conductive base
metals - Measurement of coating thickness - Amplitude-sensitive eddy
current method

DIN EN ISO 2808
2019-12 Paints and varnishes - Determination of film thickness

1.2.3 Measurement of coating thickness of metallic coatings by coulometric method *

DIN EN ISO 1456
2009-12 Metallic and other inorganic coatings - Electrodeposited coatings of
nickel, nickel plus chromium, copper plus nickel and of copper plus
nickel plus chromium

DIN EN ISO 2177
2004-08 Metallic coatings - Measurement of coating thickness - Coulometric
method by anodic dissolution

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DIN EN ISO 16866 2023-01	Metallic and other inorganic coatings - Simultaneous thickness and electrode potential determination of individual layers in multilayer nickel deposits (STEP test)
ASTM B 764 2004	Standard Test Method for Simultaneous Thickness and Electrode Potential Determination of Individual Layers in Multilayer Nickel Deposit (STEP Test)

No flexibilization applies to the following test procedure:

PV 1065 2023-10	Determination of Potential Differences and Layer Thicknesses of Nickel Coatings
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1.2.4 Determination of cracks and pores by copper deposition method *

DIN 53100 2020-04	Metallic coatings - Electroplated coatings of nickel plus chromium and of copper plus nickel plus chromium on plastics materials
DIN EN ISO 1456 2009-12	Metallic and other inorganic coatings - Electrodeposited coatings of nickel, nickel plus chromium, copper plus nickel and of copper plus nickel plus chromium

No flexibilization applies to the following test procedure:

PV 1058 2020-03	Chrome-Plated Surfaces; Determination of the Micro-Crack Pattern on Chrome-Plated Surfaces
PV 1063 2024-02	Chrome-Plated Surfaces; Determining the Micropore Density

1.3 Permeability tests ***

DIN EN 927-5 2023-08	Paints and varnishes - Coating materials and coating systems for exterior wood - Part 5: Assessment of the liquid water permeability
DIN EN 1062-3 2008-04	Paints and varnishes - Coating materials and coating systems for exterior masonry and concrete - Part 3: Determination of liquid water permeability
DIN EN ISO 7783 2019-02	Paints and varnishes - Determination of water-vapour transmission properties - Cup method

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2 Mechanical tests

2.1 Determination of mechanical-technological properties ***

DIN EN ISO 1519 2011-04	Paints and varnishes - Bend test (cylindrical mandrel)
DIN EN ISO 1520 2007-11	Paints and varnishes - Cupping test
DIN EN ISO 1522 2023-02	Paints and varnishes - Pendulum damping test
DIN EN ISO 6272-1 2011-11	Paints and varnishes - Rapid-deformation (impact resistance) tests - Part 1: Falling-weight test, large-area indenter

No flexibilization applies to the following test procedure:

PV 3966 2021-09	PP Components; Stress Whitening Properties (Ball Drop Test)
PV3989 2023-12	Low-Temperature Behavior of Plastic Components (Ball-Drop Test)

2.2 Adhesion tests

2.2.1 Pull-off test for assessment of the adhesion of coatings *

DIN EN 1542 1999-07	Products and systems for the protection and repair of concrete structures - Test methods - Measurement of bond strength by pull-off
DIN EN ISO 4624 2023-09	Paints and varnishes - Pull-off test for adhesion
DIN EN ISO 16276-1 2007-08	Corrosion protection of steel structures by protective paint systems - Assessment of, and acceptance criteria for, the adhesion/cohesion (fracture strength) of a coating - Part 1: Pull-off testing

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2.2.2 Cross-cut testing and X-cut testing for assessment of the adhesion of coatings *

DIN EN ISO 2409
2020-12 Paints and varnishes - Cross-cut test

DIN EN ISO 16276-2
2007-08 Corrosion protection of steel structures by protective paint systems -
Assessment of, and acceptance criteria for, the adhesion/cohesion
(fracture strength) of a coating - Part 2: Cross-cut testing and X-cut
testing

No flexibilization applies to the following test procedure:

DBL 5416
2017-08 Parts manufactured from Thermoplastics for Paneling, Housings and
Functional Parts for External Applications

DBL 5425
2020-07 Coating / Paintwork of Plastic Parts in the Vehicle Exterior

MBN 10494-5
2023-10 Paint Test Methods - Part 5: Technical-Mechanical Tests

AA-0180
2021-04 Cross hatch testing

FLTM BI 106-01
2017-05 Coating adhesion test

2.2.3 Scratch test*

MBN 10494-5
2023-10 Paint Test Methods - Part 5: Technical-Mechanical Tests

MAN 277
2019-03 Coatings - Adhesion test (scratch test)

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2.3 Stone-chipping tests ***

DIN EN ISO 20567-1
2017-07 Paints and varnishes - Determination of stone-chip resistance of coatings - Part 1: Multi-impact testing

No flexibilization applies to the following test procedure:

DBL 5416
2017-08 Parts manufactured from Thermoplastics for Paneling, Housings and Functional Parts for External Applications

DBL 5425
2020-07 Coating / Paintwork of Plastic Parts in the Vehicle Exterior

MBN 10494-5
2023-10 Paint Test Methods - Part 5: Technical-Mechanical Tests

TL 52711
2021-03 Underbody Applications; Engine Encapsulations, Transmission Encapsulations, and ca-Enhancing Underbody Panels Made of LWRT

AA-0079
2019-02 Determination of multi-impact stone chip resistance

PR 11737558-000-06
2022-09 Underbody add-on parts

FLTM BI 157-06
2019-01 High performance stone chip resistance test new rating scale

2.4 Steam-jetting tests ***

DIN EN ISO 16925
2022-06 Paints and varnishes - Determination of the resistance of coatings to pressure water-jetting

No flexibilization applies to the following test procedure:

DBL 5416
2017-08 Parts manufactured from Thermoplastics for Paneling, Housings and Functional Parts for External Applications

DBL 5425
2020-07 Coating / Paintwork of Plastic Parts in the Vehicle Exterior

MBN 10494-5
2023-10 Paint Test Methods - Part 5: Technical-Mechanical Tests

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STD4234 2004-05	Paints and varnishes - Determination of adhesion when subjected to high-pressure spraying with water
FLTM BO 160-04 2018-02	Resistance of painted plastic parts to high pressure cleaning operations
TPJLR.52.561 2009-11	Resistance of painted exterior parts to high pressure cleaning operations

2.5 Abrasion and scratch tests

2.5.1 Determination of wet-scrub resistance ***

DIN EN 13300 2023-02	Paints and varnishes - Water-borne coating materials and coating systems for interior walls and ceilings - Classification
DIN EN ISO 11998 2006-10	Paints and varnishes - Determination of wet-scrub resistance and cleanability of coatings

2.5.2 Abrasion tests using the ABREX® test rig ***

DIN EN 60068-2-70 1996-07	Environmental testing - Part 2: Tests - Test Xb: Abrasion of markings and letterings caused by rubbing of fingers and hands
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2.5.3 Scratch tests on coatings using scratch hardness testers and spring-loaded pens *

DIN EN ISO 1518-1 2023-05	Paints and varnishes - Determination of scratch resistance - Part 1: Constant-loading method
DIN EN ISO 22557 2021-02	Paints and varnishes - Scratch test using a spring-loaded pen

No flexibilization applies to the following test procedure:

PV 3952 2021-03	Plastic Components; Determination of the Scratch Resistance of Surfaces without Finish Treatment in Vehicle Interiors and Exteriors
PV 3974 2022-05	Plastic Components; Determination of the Mar Resistance of Surfaces without Finish Treatment in Vehicle Interiors And Exteriors

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2.5.4 Scratch tests on coatings using a crockmeter *

DIN EN ISO 105-X12 2016-11	Textiles - Tests for colour fastness - Part X12: Colour fastness to rubbing
DIN EN ISO 21546 2021-02	Paints and varnishes - Determination of the resistance to rubbing using a linear abrasion tester (crockmeter)

No flexibilization applies to the following test procedure:

PV 3906 2021-11	Non-Metallic Planar Materials; Testing the Abrasion Behavior
PV 3987 2022-05	Scrub Resistance (Micro-Scratch Resistance) of High-Gloss Surfaces in the Vehicle Interior
PV 3991 2021-01	Structured Surfaces; Skin Abrasion Testing

3 Optical tests

3.1 Evaluation of colour coordinates of coatings by colour measurement *

DIN 6167 1980-01	Description of yellowness of near-white or near-colourless materials
DIN EN ISO 6504-3 2020-04	Paints and varnishes - Determination of hiding power - Part 3: Determination of hiding power of paints for masonry, concrete and interior use
DIN EN ISO 18314-1 2018-12	Analytical colorimetry - Part 1: Practical colour measurement
DIN EN ISO/CIE 11664-4 2020-03	Colorimetry - Part 4: CIE 1976 L*a*b* colour space

No flexibilization applies to the following test procedure:

MBN 10494-4 2021-02	Paint Test Methods - Part 4: Optical Tests
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VW 50190 2017-11	Vehicle Interior Equipment Components; Measurement-Based Evaluation of Colour and Gloss Level; Visual Evaluation of Chrome Surfaces
VW 50195 2019-03	Colorimetric Evaluation of Exterior Automotive Paint Finishes
VW 50196 2019-02	Decorative Exterior Parts in Non-Body Colour; Determining Colour and Gloss
AA-0161 2022-06	Colour Measurement on Bodies and Hang On Parts
AA-0354 2022-03	Technical Understanding of Colour Measurement and the Measurement of Test Panels for Initial and Batch Release

3.2 Determination of gloss value ***

DIN EN ISO 2813 2015-02	Paints and varnishes - Determination of gloss value at 20°, 60° and 85°
MBN 10494-4 2021-02	Paint Test Methods - Part 4: Optical Tests
VW 50190 2017-11	Vehicle Interior Equipment Components; Measurement-Based Evaluation of Colour and Gloss Level; Visual Evaluation of Chrome Surfaces
VW 50196 2019-02	Decorative Exterior Parts in Non-Body Colour; Determining Colour and Gloss
AA-0101 2023-10	Reflectometer Value

3.3 Visual evaluation of textiles and coatings *

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 3668 2020-05	Paints and varnishes - Visual comparison of colour of paints

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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 4628-3 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 3: Assessment of degree of rusting
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 2023-03	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 4628-6 2024-01	Paints and varnishes - Evaluation of degradation of coatings - Designation of quantity and size of defects, and of intensity of uniform changes in appearance - Part 6: Assessment of degree of chalking by tape method
DIN EN ISO 4628-7 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 7: Assessment of degree of chalking by velvet method
DIN EN ISO 4628-8 2013-03	Paints and varnishes - Evaluation of degradation of coatings - Designation of quantity and size of defects, and of intensity of uniform changes in appearance - Part 8: Assessment of degree of delamination and corrosion around a scribe or other artificial defect
DIN EN ISO 4628-10 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 10: Assessment of degree of filiform corrosion

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No flexibilization applies to the following test procedure:

MBN 10494-4 2021-02	Paint Test Methods - Part 4: Optical Tests
MBN 10494-6 2021-03	Paint Test Methods - Part 6: Climatic Tests
VW 50190 2017-11	Vehicle Interior Equipment Components; Measurement-Based Evaluation of Colour and Gloss Level; Visual Evaluation of Chrome Surfaces (here: <i>Visual evaluation of chrome surfaces</i>)

4 Determination of resistance of coatings to liquids by chemical resistance tests *

DIN EN ISO 2812-1 2018-03	Paints and varnishes - Determination of resistance to liquids - Part 1: Immersion in liquids other than water
DIN EN ISO 2812-2 2019-03	Paints and varnishes - Determination of resistance to liquids - Part 2: Water immersion method
DIN EN ISO 2812-3 2019-08	Paints and varnishes - Determination of resistance to liquids - Part 3: Method using an absorbent medium
DIN EN ISO 2812-4 2018-03	Paints and varnishes - Determination of resistance to liquids - Part 4: Spotting methods

No flexibilization applies to the following test procedure:

DBL 5416 2017-08	Parts manufactured from Thermoplastics for Paneling, Housings and Functional Parts for External Applications
DBL 5425 2020-07	Coating / Paintwork of Plastic Parts in the Vehicle Exterior
MBN 10494-7 2022-06	Paint Test Methods - Part 7: Resistance to Chemicals, Test Mixtures and Test Concentrates
PV 3964 2008-02	Surfaces in the Passenger Compartment; Testing of Cream Resistance
AA-0053 2017-04	Sun cream resistance of painted parts in the interior

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AA-0055 2023-10	Chemical resistance test of surfaces
PR 557 2020-05	Resistance of unpainted thermoplastic surfaces in interior and exterior area to media
FLTM BI 104-01 2023-01	Water immersion test for painted parts and panels

5 Environmental simulation tests

5.1 Weathering tests

5.1.1 Methods of exposure of textiles, plastics and coatings to xenon arc lamps *

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 4892-2 2021-11	Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps
DIN EN ISO 16474-2 2022-11	Paints and varnishes - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps
SAE J 2527 2017-09	Performance based standard for accelerated exposure of automotive exterior materials using a controlled irradiance xenon-arc apparatus

No flexibilization applies to the following test procedure:

DBL 5425 2020-07	Coating / Paintwork of Plastic Parts in the Vehicle Exterior
DBL 5555 2014-04	Finished Parts and Semi-Finished Products Made of Organic Polymer Materials - General Conditions and Test Methods
MBN 10494-6 2021-03	Paint Test Methods - Part 6: Climatic Tests

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PV 1303 2021-05	Non-Metallic Materials; Xenon Arc Light Aging of Vehicle Interior Parts
PV 3929 2023-01	Non-Metallic Materials; Weathering in Dry, Hot Climate (Exterior)
PV 3930 2023-01	Weathering in Humid, Hot Climate (Exterior)
PSA D27 1389 2007-07	Paint coatings - Rubbers and plastics - Artificial ageing by Weather-Ometer

5.1.2 Methods of exposure of plastics and coatings to fluorescent UV lamps *

DIN EN 927-6 2018-12	Paints and varnishes - Coating materials and coating systems for exterior wood - Part 6: Exposure of wood coatings to artificial weathering using fluorescent UV lamps and water
DIN EN ISO 4892-3 2016-10	Plastics - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV lamps
DIN EN ISO 16474-3 2021-04	Paints and varnishes - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV lamps

No flexibilization applies to the following test procedure:

MBN 10494-6 2021-03	Paint Test Methods - Part 6: Climatic Tests
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5.2 Water condensation tests

5.2.1 Condensation exposure for determination of resistance of coatings to humidity *

DIN EN ISO 6270-1 2018-04	Paints and varnishes - Determination of resistance to humidity – Part 1: Condensation (single-sided exposure)
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)
ISO 11503 1995-07	Paints and varnishes - Determination of resistance to humidity (intermittent condensation)

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No flexibilization applies to the following test procedure:

MBN 10494-6 Paint Test Methods - Part 6: Climatic Tests
2021-03

5.2.2 Condensation exposure for determination of resistance of coatings to humid atmospheres containing sulfur dioxide *

DIN EN ISO 22479 Corrosion of metals and alloys - Sulfur dioxide test in a humid
2022-08 atmosphere (fixed gas method)

5.3 Corrosion tests

5.3.1 Salt spray tests for assessment of the corrosion resistance of metallic materials, with or without corrosion protection *

DIN EN ISO 9227 Corrosion tests in artificial atmospheres - Salt spray tests
2023-03

ASTM B 117 Standard Practice for Operating Salt Spray (Fog) Apparatus
2019

No flexibilization applies to the following test procedure:

MBN 10494-6 Paint Test Methods - Part 6: Climatic Tests
2021-03

5.3.2 Corrosion cycle tests for determination of resistance of coatings to cyclic corrosion conditions *

DIN EN ISO 11997-1 Paints and varnishes - Determination of resistance to cyclic corrosion
2018-01 conditions - Part 1: Wet (salt fog)/dry/humid

DIN EN ISO 11997-2 Paints and varnishes - Determination of resistance to cyclic corro-
2013-12 sion conditions - Part 2: Wet (salt fog)/dry/humidity/UV light

DIN EN ISO 11997-3 Paints and varnishes - Determination of resistance to cyclic corro-
2024-01 sion conditions - Part 3: Testing of coating systems on materials and
 components in automotive construction

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ASTM G 85 Standard Practice for Modified Salt Spray (Fog) Testing
2019

No flexibilization applies to the following test procedure:

MBN 10494-6 Paint Test Methods - Part 6: Climatic Tests
2021-03

PV 1078 Subframe ASSY and Chassis Parts in Steel Construction; Intensified
2024-01 Corrosion and Temperature Cycle Test (VKTT)

PV 1207 Aluminum Add-on Parts; Corrosion Test (Environmental Corrosion
2023-06 Cycle Test)

PV 1208 Heat Exchangers Made of Aluminum Alloys; Corrosion Test (SWAAT)
2023-01

PV 1209 Add-On Parts/Hang-On Parts with a Zinc or Zinc Alloy Coating and
2023-09 Aluminum Add-On Parts/Hang-On Parts (e.g., Heat Exchanger,
Refrigerant Line); Corrosion Test (Environmental Corrosion Cycle
Test)

PV 1210 Body and Add-On Parts/Hang-On Parts; Corrosion Test
2016-02

5.4 Temperature and climate tests for determination of resistance of coatings *

DIN EN 3665 Aerospace series - Test methods for paints and varnishes - Filiform
1997-08 corrosion resistance test on aluminium alloys

DIN EN ISO 4623-1 Paints and varnishes - Determination of resistance to filiform
2019-01 corrosion - Part 1: Steel substrates

DIN EN ISO 4623-2 Paints and varnishes - Determination of resistance to filiform
2016-12 corrosion - Part 2: Aluminium substrates

No flexibilization applies to the following test procedure:

DBS 918 020 Labelling of railway vehicles - Self-adhesive films for exterior
2013-03 lettering and outdoor advertising

DBS 918 021 Labelling of railway vehicles - Self-adhesive films for interior
2015-07 lettering

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DBL 5416 2017-08	Parts manufactured from Thermoplastics for Paneling, Housings and Functional Parts for External Applications
DBL 5425 2020-07	Coating / Paintwork of Plastic Parts in the Vehicle Exterior
MBN 10494-6 2021-03	Paint Test Methods - Part 6: Climatic Tests
TL 211 2023-04	Coating of Plastic Exterior Parts; Requirements
TL 212 2021-06	Oxide Coatings on Aluminum Parts; Surface Protection Requirements
TL 226 2020-10	Paintwork on Materials of Vehicle Interior Equipment; Requirements
PV 1200 2022-11	Vehicle Parts; Testing the Environmental Cycle Resistance (80 °C/ -40 C)
PV 2005 2021-06	Vehicle Parts; Environmental Cycle Resistance Testing of Special Parts, New Developments, and Solutions
PV3959 2020-04	Hydrolysis Test on Components with Foam-Laminated Decorative Material in the Vehicle Interior
PV 7201 2022-03	Alloy Wheel; Testing of Filiform Corrosion Properties
VW 96379 2006-04	Exterior; Testing of Add-on Parts; Climatic Test
VW 96380 2015-07	Corrosion Test; Modified Environmental Cycle Test
AA-0326 2017-12	SCAB Corrosion Test
PR 303.6 2020-06	Alternating climate test for trim parts
VCS 1027,1449 2014-02	Cyclic atmospheric corrosion test with salt load - Accelerated corrosion test, version II - ACT II

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STD4445 2014-08	Accelerated corrosion test, version II (ACT2)
CETP 00.00-L-467 2009-03	Global laboratory accelerated cyclic corrosion test
CETP 00.00-L-3190 2022-02	Global laboratory accelerated cyclic corrosion test for painted aluminum panels

6 Flexural tests, tensile tests and impact tests

6.1 Determination of flexural properties of plastics by flexural tests *

DIN EN ISO 178 2019-08	Plastics - Determination of flexural properties
DIN EN ISO 14125 2011-05	Fibre-reinforced plastic composites - Determination of flexural properties

No flexibilization applies to the following test procedure:

TL 52711 2021-03	Underbody Applications; Engine Encapsulations, Transmission Encapsulations, and cd-Enhancing Underbody Panels Made of LWRT
PV 3954 2021-06	Floor Covering ASSYs; Determination of Bending Stiffness

6.2 Determination of tensile properties of rubber, adhesive bonds, textiles, plastics and metallic materials by tensile tests *

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 1464 2010-06	Adhesives - Determination of peel resistance of adhesive bonds - Floating roller method
DIN EN 1465 2009-07	Adhesives - Determination of tensile lap-shear strength of bonded assemblies
DIN EN ISO 527-1 2019-12	Plastics - Determination of tensile properties - Part 1: General principles

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DIN EN ISO 527-2 2012-06	Plastics - Determination of tensile properties - Part 2: Test conditions for moulding and extrusion plastics
DIN EN ISO 527-3 2019-02	Plastics - Determination of tensile properties - Part 3: Test conditions for films and sheets
DIN EN ISO 527-4 2023-07	Plastics - Determination of tensile properties - Part 4: Test conditions for isotropic and anisotropic fibre-reinforced plastic composites
DIN EN ISO 527-5 2022-05	Plastics - Determination of tensile properties - Part 5: Test conditions for unidirectional fibre-reinforced plastic composites
DIN EN ISO 6892-1 2020-06	Metallic materials - Tensile testing - Part 1: Method of test at room temperature
DIN EN ISO 9073-3 2023-09	Textiles; test method for nonwovens; part 3: determination of tensile strength and elongation

No flexibilization applies to the following test procedure:

MBN 10494-8 2016-03	Paint Test Methods - Part 8: Adhesion of Adhesives on the Coating
MBN 10526 2018-07	Test Methods for Self-Adhesive Components
TL 239 2022-10	Alloy Wheels; Surface Protection Requirements
PV 2034 2020-09	Non-Metallic Planar Materials; Floating Roller Peel Test
PV 3973 2021-03	Elastomer O-Rings; Determining Tensile Strength, Elongation at Tear and Stress Values in the Tensile Test

6.3 Determination of impact properties of plastics by impact tests *

DIN 53435 2018-09	Testing of plastics - Bending test and impact test on dynstat test specimens
DIN EN ISO 179-1 2023-10	Plastics - Determination of Charpy impact properties - Part 1: Non-instrumented impact test

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7 Determination of burning behaviour of interior materials in motor vehicles by burning tests*
7.1 Burning test in a combustion chamber

DIN 75200
1980-09 Determination of burning behaviour of interior materials in motor vehicles

ISO 3795
1989-10 Road vehicles, and tractors and machinery for agriculture and forestry - Determination of burning behaviour of interior materials

No flexibilization applies to the following test procedure:

DBL 5307
2022-11 Flame retardant properties – Interior trim parts - Requirements and test specifications

TL 1010
2008-01 Materials for Vehicle Interiors; Burning Behavior, Material Requirements

GS 97038
2020-02 Determination of burning behavior to automotive interior trim materials

BSDM0500
2020-12 Flammability test method for interior materials

7.2 Surface and edge flame exposure test

DIN EN 60695-11-10
2014-10 Fire hazard testing - Part 11-10: Test flames - 50 W horizontal and vertical flame test methods

No flexibilization applies to the following test procedure:

TL 1011
2019-03 Flammability of Non-Metallic Materials; Flammability; Materials Requirements

PV 3357
2024-01 Sound Insulation Materials; Behavior on Flame Exposure with a Burner; Surface and Edge Flame Exposure Test

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Abbreviations used:

AA	BMW Work Instruction
ASTM	American Society for Testing and Materials
BMW	Bayerische Motorenwerke AG
CETP	Corporate Engineering Test Procedure
DBL	Mercedes-Benz Company Standard
DBS	Deutsche Bahn-Standard
DIN	German institute for standardization
EN	European Standard
FLTM	Ford Laboratory Test Method
GMW	General Motors Worldwide Engineering Standard
GS	BMW Group Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
MBN	Mercedes-Benz Company Standard
MS	Hyundai Kia Motor Material Specification
NES	Nissan Engineering Standard
PR	BMW Test Specification
PSA	Peugeot Société Anonyme
PV	VW Group Standard
RL	Guideline
SAE	Society of Automotive Engineers
STD	Scania Standard
TL	VW Group Standard
TPJLR	Jaguar Cars & Land Rover - Engineering Test Procedure
VCS	Volvo-Car-Corporation Standard
VDA	German Association of the Automotive Industry
VdL	German Paint and Printing Ink Association
VW	Volkswagen AG

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