SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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MECHANICAL

Valid To: September 30, 2024 Certificate Number: 0859.03

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following weathering and corrosion tests:

Testing to determine material durability using laboratory accelerated methods, visual and instrumental evaluations to measure degradation effects, including gloss and color, mechanical measurements of physical properties before and after exposure.

On the following materials:
Automotive Components, Plastics, Paints, Textiles, Roofing, Sealants, Glass, Photovoltaic, and Solar Heating materials

Using the following test methods:

Accelerated Weathering Tests	**Test Method(s)**
Salt Spray (Fog) Testing	ASTM B117
Water Resistance of Coatings Using Water for Apparatus	ASTM D1735
Water Resistance to 100% Relative Humidity	ASTM D2247
Lightfastness and Weatherability of Printed Matter	ASTM D3424 Methods 3 & 4
Lightfastness of Colorants Used in Artists' Materials	ASTM D4303 Methods C & D
Testing Water Resistance of Coatings Using Controlled Condensation	ASTM D4585
Fluorescent UV Condensation Exposure of Paint and Related Coatings	ASTM D4587
Accelerated Testing Color Stability of Indoor Plastics	ASTM D4674 Methods III & IV
Cyclic Salt Fog / UV Exposure of Painted Metal	ASTM D5894
Specification for Polyolefin Based Plastic Lumber Decking Boards	ASTM D6662
Accelerated Acid Etch Weathering of Automotive Clearcoats Using a Xenon Arc Exposure Device	ASTM D7356
Xenon Arc Exposure Test with Enhanced Light and Water Exposure for Transportation Coating	ASTM D7869
Modified Salt Spray (Fog) Testing	ASTM G85

Accelerated Weathering Tests (continued)	**Test Method(s)**
Exposing Nonmetallic Materials in Accelerated Test Devices That Use Laboratory Light Sources	ASTM G151
Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials	ASTM G154
Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials	ASTM G155
Accelerated Weathering Crack Stability	BMW AA-0235
Exposure of Wood Coatings to Artificial Weathering Using Fluorescent UV and Water	EN 927-6
Coil Coated Metals – Resistance to Salt Spray (Fog)	EN 13523-8
Coil Coated Metals – Resistance to Fluorescent UV and Water Condensation	EN 13523-10
Salt Spray Resistance Test for Painted Panels and Parts	FLTM BI 103-01
Resistance to Interior Weathering	FLTM BO 116-01
Laboratory Accelerated Cyclic Corrosion Test	Ford CETP 00.00-L-467
Cyclic Corrosion Laboratory Test	GMW 14872
Textiles – Tests for Colour Fastness	
Part B02: Colour Fastness to Artificial Light: Xenon Arc Fading Lamp Test	ISO 105-B02
Part B04: Colour Fastness to Artificial Weathering: Xenon Arc Fading Lamp Test	ISO 105-B04
Part B06: Colour Fastness to Artificial Light at High Temperatures: Xenon Arc Fading Lamp Test	ISO 105-B06
Plastics - Methods of Exposure to Laboratory Light Sources	
Part 1: General Guidance	ISO 4892-1
Part 2: Xenon-Arc Lamps	ISO 4892-2
Part 3: Fluorescent UV Lamps	ISO 4892-3
Corrosion Tests in Artificial Atmosphere – Salt Spray Tests	ISO 9227 (NSS Only)
Xenon Arc Testing for Paints	ISO 11341[1] (Withdrawn 2013)
Fluorescent UV Test on Paints	ISO 11507[1] (Withdrawn 2013)
Paint and Varnishes – Methods of Exposure to Laboratory Light Sources	
Part 1: General Guidance	ISO 16474-1
Part 2: Xenon-Arc Lamps	ISO 16474-2
Part 3: Fluorescent UV Lamps	ISO 16474-3
Prints and Printing Inks – Assessment of Lightfastness Filtered Xenon Arc Light	ISO 12040
Non-Metallic Materials Weathering in a Humid Climate	MBN 10505
Non-Metallic Weathering in Dry and Hot Climates	MBN 10506

Accelerated Weathering Tests (continued)	**Test Method(s)**
Cyclic Corrosion (CCT-1, CCT-2, and CCT-4)	NES M 0007 Section 33
Corrosion Protection	SAE J1959 (Except Section 3.12)
Accelerated Exposure of Automotive Exterior Materials Using a Fluorescent UV and Condensation Apparatus	SAE J2020
Accelerated Exposure of Automotive Interior Trim Components Using a Controlled Xenon Arc Apparatus	SAE J2412
Performance Based Standard for Accelerated Exposure of Automotive Exterior Materials Using a Controlled Irradiance Xenon Arc Apparatus	SAE J2527
Cyclic Corrosion of Materials and Components in Automotive Construction	VDA 233-102
Corrosion Test Body and Attachments	VW PV 1210
Exposure Test of Passenger Compartment Components	VW PV1303
Exposure Test for Determining the Tackiness of Polypropylene Parts	VW PV 1306
Non-Metallic Materials, Weathering in Dry, Hot Climate	VW PV 3929
Non-Metallic Materials, Weathering in Moist, Hot Climate	VW PV 3930

Evaluation Methods	**Test Method(s)**
Test Method for Specular Gloss	ASTM D523
Haze and Transmittance of Transparent Plastics	ASTM D1003 Method B
Evaluation of Painted or Coated Specimens to Corrosive Environments	ASTM D1654
Visual Evaluation of Color Difference of Opaque Materials	ASTM D1729
Test Method for Yellowness Index of Plastics	ASTM D1925[1] (Withdrawn 1995)
Calculation of Color Difference from Instrumentally Measured Color Coordinates	ASTM D2244
Evaluation of Visual Color Difference with a Gray Scale	ASTM D2616
Evaluating the Degree of Chalking of Exterior Paint Films	ASTM D4214
Calculating Yellowness and Whiteness Indices from Instrumentally Measured Color Coordinates	ASTM E313
Spectrometric Data for Object Color Evaluation	ASTM E1164
Reflectance Factor and Color by Spectrophotometry Using Hemispherical Geometry	ASTM E1331
Transmittance and Color by Spectrophotometry Using Hemispherical Geometry	ASTM E1348
Gloss Assessment of Plane Surfaces of Paint Coatings and Plastics	DIN 67530
Colorimetry: Spectrophotometric Method	DIN 5033-3

Evaluation Methods (continued)	**Test Method(s)**
Coil Coated Metals – Test Methods	
Part 2 - Gloss	EN 13523-2
Part 3 - Colour Difference Instrumental Comparison	EN 13523-3
Part 22 - Colour Difference – Visual Comparison	EN 13523-22
Corrosion/Undercutting Scribe Creepback	GMW 15282
Gray Scale for Assessing Change in Color	ISO 105-A02
Thickness of Coatings on Magnetic Substrates	ISO 2178
Thickness of Coatings on Non-Magnetic Substrates	ISO 2360
Paints and Varnishes Determination of Film Thickness	ISO 2808
Determination of Specular Gloss of Non-Metallic Paint Films at 20°, 60° and 85°	ISO 2813
Paints and Varnishes – Visual Comparison of Colour of Paints	ISO 3668
Evaluation of Color and Pigments	ISO 4582
Paints and Varnishes Evaluation of Degradation of Coatings:	
Part 1 - General Introduction and Designation System	ISO 4628-1
Part 2 - Assessment of Degree of Blistering	ISO 4628-2
Part 3 - Assessment of Degree of Rusting	ISO 4628-3
Part 4 - Assessment of Degree of Cracking	ISO 4628-4
Part 5 - Assessment of Degree of Flaking	ISO 4628-5
Part 6 - Assessment of Degree of Chalking by Tape Method	ISO 4628-6
Part 7 - Assessment of Degree of Chalking by Velvet Method	ISO 4628-7
Part 8 - Assessment of Degree of Delamination and Corrosion Around a Scribe or Other Artificial Defect	ISO 4628-8
Part 10 - Assessment of Degree of Filiform Corrosion	ISO 4628-10
Paints and Varnishes - Colorimetry	
Part 1 - Principles	ISO 7724-1
Part 2 - Color Measurement	ISO 7724-2
Part 3 - Calculation of Color	ISO 7724-3
Instrumental Color Difference Measurement for Exterior Finishes, Textiles and Trim	SAE J1545
Instrumental Color of Automotive Trim Material	SAE J1767
Mechanical Methods	**Test Method(s)**
Chipping Resistance of Coatings	ASTM D3170
Measuring Adhesion by Tape Test	ASTM D3359
Film Hardness by Pencil Test	ASTM D3363

Mechanical Methods (continued)	**Test Method(s)**
Dry Film Thickness of Ferrous and Non-Ferrous Metals	ASTM D7091
Conditioning and Handling of Nonmetallic Materials for Natural and Artificial Weathering Tests	ASTM G147
Coil Coated Metals - Pencil Hardness	EN 13523-4
High Performance Stone Chip Test	FLTM BI 157-04
High Performance Stone Chip Resistance Test New Rating Scale	FLTM BI 157-06
Tape Adhesion Test for Painted Finishes	GM 9071P[1] (Superseded 2012)
Paints and Varnishes – Cross-Cut Test (Tape Adhesion)	ISO 2409
Paints and Varnishes – Determination of Film Hardness by Pencil Test	ISO 15184
Test for Chip Resistance of Surface Coatings	SAE J400
Chip Resistance	Volvo STD 1024, 7132

[1]This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.

Accredited Laboratory

A2LA has accredited

Q-LAB DEUTSCHLAND GMBH

Saarbrucken, Germany

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

Presented this 20th day of September 2022.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0859.03
Valid to September 30, 2024

For the tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.