



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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MECHANICAL

Valid To: September 30, 2022

Certificate Number: 0859.04

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)

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
Xenon Arc Exposure of Plastics for Indoor Applications	ASTM D4459
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 IV
Cyclic Salt Fog / UV Exposure of Painted Metal	ASTM D5894
Specification for Polyolefin Based Plastic Lumber Decking Boards	ASTM D6662
Xenon Arc Exposure Test with Enhanced Light and Water Exposure for Transportation Coating	ASTM D7869

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
Exposure of Wood Coatings to Artificial Weathering Using Fluorescent UV and Water	EN 927-6
Coil Coated Metals – Resistance to Fluorescent UV and Water Condensation	EN 13523-10
Laboratory Accelerated Cyclic Corrosion Test	Ford CETP 00.00-L-467
Paints and varnishes – Determination of resistance to neutral salt spray (fog)	GB/T 1771
Paints and varnishes - Artificial weathering and exposure to artificial radiation - Exposure to filtered xenon-arc radiation	GB/T 1865
Textiles-Tests for colour fastness-Colour fastness to artificial light: Xenon arc fading lamp test	GB/T 8427
Corrosion tests in artificial atmospheres-salt spray tests	GB/T 10125
Plastics – Methods of Exposure to Laboratory Light Sources:	
Part 1: General Guidance	GB/T 16422.1
Part 2: Xenon-Arc Lamps	GB/T 16422.2
Part 3: Fluorescent UV Lamps	GB/T 16422.3
Water Fog Humidity Test	GM 4465P ¹ (Superseded 2011)
Laboratory Accelerated Exposure of Automotive Materials (UV)	GM 9125P (withdrawn 2013) ¹
Salt Spray Test	GMW 3286
High Humidity Test	GMW 14729
Cyclic Corrosion Laboratory Test	GMW 14872
Textiles – Tests for Colorfastness to Artificial Light: Xenon Arc	ISO 105-B02
Textiles – Tests for Colorfastness to Artificial Light at High Temperatures: Xenon Arc	ISO 105-B06, Conditions 3 & 5
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
Paint and Varnishes – Resistance to Neutral Salt Spray	ISO 7253
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)



Accelerated Weathering Tests (continued)

	<u>Test Method(s)</u>
Prints and Printing Inks – Assessment of Lightfastness Filtered Xenon Arc Light	ISO 12040
Paints 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
Non-Metallic Materials Weathering in a Humid Climate	MBN 10505
Non-Metallic Weathering in Dry and Hot Climates	MBN 10506
Accelerated Exposure of Automotive Exterior Materials Using a Fluorescent UV and Condensation Apparatus	SAE J2020
Cosmetic Corrosion Lab Test	SAE J2334
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
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

	<u>Test Method(s)</u>
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



Evaluation Methods (continued)**Test Method(s)**

Transmittance and Color by Spectrophotometry Using Hemispherical Geometry	ASTM E1348
Colorimetry: Spectrophotometric Method	DIN 5033-3
Gloss Assessment of Plane Surfaces of Paint Coatings and Plastics	DIN 67530
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
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)**

Measuring Adhesion by Tape Test	ASTM D3359
Film Hardness by Pencil Test	ASTM D3363



Mechanical Methods (continued)

Test Method(s)

Conditioning and Handling of Nonmetallic Materials for Natural and Artificial Weathering Tests

ASTM G147

Coil Coated Metals - Pencil Hardness

EN 13523-4

Tape Adhesion Test for Painted Finishes

GM 9071P¹ (Superseded 2012)

Paints and Varnishes – Cross-Cut Test (Tape Adhesion)

ISO 2409

¹This 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 CHINA

Shanghai, People's Republic of China

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 11th day of August 2020.

A handwritten signature in blue ink, appearing to be "A. ...".

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0859.04
Valid to September 30, 2022

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