SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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MECHANICAL

Valid To: August 31, 2024 Certificate Number: 0717.05

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

Laboratory Accelerated Weathering: Using single and twin enclosed carbon arc, open flame (sunshine) carbon arc, and controlled irradiance xenon arc Weather-Ometer® and Fade-Ometer®, fluorescent-ultraviolet condensation apparatus, metal halide lamps; laboratory oven, controlled temperature bath.

Evaluations: Visual inspection for all property changes detectable to the unaided eye or under magnification. Instrumental determination of loss of adhesion, chalking, instrumental color, color change, gloss, and yellowness index.

On the following products or materials: adhesives & sealants, agricultural & forest products, automotive products, aviation & aerospace materials, building materials (most applications & substrates), coatings, composites, geosynthetics, dyes, glass, inks, leather, packaging, photodegradables, plastics, rubber, textiles, windows & doors, wood & wood products.

PARAMETER BASED SCOPE[1]

Type of Test	Measurement/ Test Parameter	Measurement and Testing Range
Light and Weather Fastness Testing with Xenon Lamps –		
Colorfastness to Light	Irradiance	(0.6 to 3.0) W/m^2 @ 420 nm (40 to 180) W/m^2 @ (300 to 400) nm (250 to 765) W/m^2 @ (300 to 800) nm
	Filter System	Behind window glass
	Chamber Temperature	(30 to 70) °C
	BST/BPT Temperature	(40 to 130) °C
	Moisture	(10 to 95) % RH
	Cycle	Only light, no wetting
Weather Resistance	Irradiance	(0.25 to 1.5) W/m² @ 340nm (40 to 180) W/m² @ (300 to 400) nm (250 to 765) W/m² @ (300 to 800) nm
	Filter System	Outdoor
	Chamber Temperature	(30 to 70) °C
	BST/BPT Temperature	(40 to 130) °C
	Moisture	(10 to 95) % RH
	Cycle	Bright and dark cycle, wetting cycle
Light and Weather Fastness Testing with Fluorescent Lamps –		
Weather Resistance	Irradiance	Lamps, as specified
	Filter System	According to the lamp type
	BST/BPT Temperature	(30 to 90) °C
	Moisture	Condensation condition
	Cycle	Light and condensation cycle

Type of Test	Measurement/ Test Parameter	Measurement and Testing Range
Light and Weather Fastness Testing with Carbon Arc Lamps –		
Weather Resistance	Irradiance Filter System Chamber Temperature BST/BPT Temperature Moisture Cycle	Fixed, depending on the voltage & amperage Pyrex globe / Corex D / Soda lime (30 to 60) °C (50 to 100) °C (10 to 70) % RH Bright and dark cycle, wetting cycles
Solar Simulation Testing with Metal Halide Lamps	Irradiance Filter System Chamber Temperature Moisture Cycle	(800 to 1200) W/m^2 @ (280 to 3000) nm Daylight and window glass (-30 to -100) °C (30 to 95) % RH Light or dark with no spray

[1] Please reference the following test methods for the parameter based scope:

REFERENCE STANDARDS APPLICABLE TO THE PARAMETER BASED SCOPE OF ACCREDITATION

AAMA (American Architectural Manufacturers Association)

AAMA 312, 5.0	Performance Requirements for the Lamination of Wood and Cellulosic Composite Profiles

AATCC (American Association of Textile Chemists & Colorists)

AATCC-016, 6.2	Colorfastness to Light - Carbon-Arc (except Section 23)
AATCC-016, 6.3	Colorfastness to Light - Xenon-Arc
AATCC-169	Weather Resistance of Textiles: Xenon Lamp Exposure

ASTM (American Society for Testing and Materials)

ASTM B117	Standard Practice for Operating Salt Spray (Fog) Apparatus
ASTM D822	Conducting Tests on Paint and Related Coatings and Materials Using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus
ASTM D904	Exposure of Adhesive Specimens to Artificial and Natural Light
ASTM D1654	Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
ASTM D2565	Operating Xenon-Arc Type Light Exposure Apparatus With and Without Water for Exposure of Plastics
ASTM D2803	Standard Guide for Testing Filiform Corrosion Resistance of Organic Coatings on Metal

ASTM (American Society for Testing and Materials, continued)

ASTM D3424	Evaluating the Lightfastness and Weatherability of Printed Matter
ASTM D3815	Accelerated Aging of Pressure Sensitive Tape by Carbon-Arc Exposure Apparatus
ASTM D4303	Lightfastness of Pigments Used in Artists' Paints (Procedures A, C, and D)
ASTM D4329	Operating Light- and Water-Exposure Apparatus (Fluorescent UV Condensation Type) for Exposure of Plastics
ASTM D4355	Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus, except Section 9.5)
ASTM D4459	Operating an Accelerated Lightfastness Xenon-Arc-Type (Water-cooled) Light Exposure Apparatus for the Exposure of Plastics for Indoor Applications
ASTM D4587	Fluorescent Exposure of Coatings
ASTM D4674	Accelerated Testing for Color Stability of Plastics Exposed to Indoor Fluorescent Lighting and Window-Filtered Daylight
ASTM D4799	Accelerated Weathering Test Conditions and Procedures for Bituminous Materials (Fluorescent UV Condensation Method)
ASTM D5031	Testing Paints, Varnishes, Lacquers, and Related Products Using Enclosed Carbon Arc Light- and Water-Exposure Apparatus
ASTM D5071	Operating Xenon Arc-Type Exposure Apparatus with Water for Exposure of Photodegradable Plastics
ASTM D5894	Cyclic Salt Fog/UV Exposure of Painted Metal (Alternating Exposures in a Fog/Dry Cabinet and a UV/Condensation Cabinet)
ASTM D6695	Xenon-Arc Exposures of Paint and Related Coatings
ASTM D6901	Standard Specification for Artists' Colored Pencils
ASTM D7869	Standard Practice for Xenon Arc Exposure Test with Enhanced Light and Water Exposure for Transportation Coatings
ASTM G85	Modified Salt Spray (Fog) Testing
ASTM G151	Exposing Non-Metallic Materials in Accelerated Test Devices That Use Laboratory Light Sources
ASTM G152	Operating Open Flame Carbon-Arc Light Apparatus for Exposure of Nonmetallic Materials
ASTM G153	Operating Enclosed Carbon-Arc Light Apparatus for Exposure of Nonmetallic Materials
ASTM G154	Operating Fluorescent Light Apparatus of UV Exposure of Nonmetallic Materials
ASTM G155	Operating Xenon-Arc Light Apparatus for Exposure of Nonmetallic Materials

CLP (Chrysler Laboratory Procedures)

LP-463-PB-16-01	Weather-O-Meter Test
LP-463-PB-17-01	Fade-O-Meter Test

FLTM (Ford Laboratory Test Methods)

FLTM BO 101-01	Resistance to Artificial Weathering
FLTM BI 103-01	Salt Spray Resistance Test for Painted Panels and Parts
FLTM BI 110-01	Measurement of the Gloss of Paint Panels
FLTM BO 116-01	Exposure of Interior Trim Materials in a Controlled Irradiance Water-Cooled Xenon-Arc Apparatus

GM (General Motors Engineering Standards - Procedures)

GM 4298P[2]	Salt Spray Test
GM 9125P[2]	Procedures for Laboratory Accelerated Exposure of Automotive Materials
GM 9540P[2]	Accelerated Corrosion Test
GMW3414	Artificial Weathering of Automotive Interior Trim Materials
GMW14162	Colorfastness to Artificial Weathering
GMW14444	Section 4.4.2, Material Related Interior Part Performance
GMW14872	Cyclic Corrosion Laboratory Test

ISO (International Standards Organization)

ISO 105-B02	Color Fastness to Artificial
ISO 105-B04	Color Fastness to Artificial Weathering
ISO 105-B05	Detection and Assessment of Photochromism
ISO 105-B06	Color Fastness to Artificial Light at High Temperatures
ISO 4892-2	Exposure to Laboratory Light Sources – Xenon-arc Lamps
ISO 4892-3	Exposure to Laboratory Light Sources – Fluorescent UV Lamps
ISO 4892-4	Exposure to Laboratory Light Sources – Open Flame carbon-arc Lamps
ISO 6270-2	Procedure for exposing test specimens in condensation-water atmospheres
ISO 9227	Corrosion Tests in Artificial Atmospheres – Salt Spray Tests

JIS (Japanese International Standards)

JIS B7753	Light and Water Exposure Apparatus (Open-Flame Sunshine Carbon Arc Type)
JIS D0205	Weatherability for Automotive Parts (except Section 7.5)

Loreal

QAC-MC-151/L	Accelerated Aging Under Light

MIL (Military Standard)

MIL-STD-810	Solar Radiation (Sunshine) -Steady State for Prolonged Actinic Effects. Method 505.5, Procedure II

SAE (Society of Automotive Engineers)

SAE J1885-05	Accelerated Exposure of Automotive Interior Trim Components
SAE J1960-04	Accelerated Exposure of Automotive Exterior Materials Using a Controlled Irradiance Water Cooled Xenon-Arc Apparatus
SAE J2020	Accelerated Exposure of Automotive Exterior Materials Using a Fluorescent UV and Condensation Apparatus
SAE J2334	Laboratory Cyclic Corrosion Test
SAE J2412	Accelerated Exposure of Automotive Interior Trim Components (Xenon-Arc)
SAE J2527	Accelerated Exposure of Automotive Exterior Materials (Xenon-Arc)

Volkswagen

VW PV 1303	Exposure Test of Passenger Compartment Components

REFERENCE STANDARDS APPLICABLE TO EVALUATIONS

AATCC (American Association of Textile Chemists & Colorists)

AATCC – 001	Gray Scale for Color Change

ASTM (American Society for Testing and Materials)

ASTM D523	Specular Gloss
ASTM D610	Evaluating Degree of Rusting on Painted Steel Surfaces
ASTM D660	Evaluating Degree Checking of Exterior Paints
ASTM D661	Evaluating Degree Cracking of Exterior Paints
ASTM D662	Evaluating Degree Erosion of Exterior Paints
ASTM D714	Evaluating Degree Blistering of Paints
ASTM D772	Evaluating Degree Flaking (Scaling) of Exterior Paints
ASTM D1654	Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
ASTM D1729	Visual Evaluation of Color Difference of Opaque Materials
ASTM D2244	Calculation of Color Difference from Instrumentally Measured Color Coordinates
ASTM D2616	Evaluation of Visual Color Difference of Opaque Materials
ASTM D3359	Measuring Adhesion by Tape Test
ASTM D4214	Evaluating Degree of Chalking of Exterior Paint Films

ASTM (American Society for Testing and Materials, continued)

ASTM E313	Indexes of Whiteness and Yellowness of Near-White Opaque Materials
ASTM E1331	Reflectance Factor and Color by Spectrophotometry Using Hemispherical Geometry
ASTM E1348	Color by Spectrophotometry Using Hemispherical Geometry
ASTM G147	Conditioning and Handling of Nonmetallic Materials for Natural and Artificial Weathering Tests

DIN (Deutsches Institut für Normung)

DIN EN ISO 11664-4	Colorimetry – Part 4: CIE 1976 L*a*b* Colour Space
DIN 53209	Designation of Degree of Blistering of Paint Coatings
DIN 67530	Refractometers as a Means for Gloss Assessment of Plane Surfaces of Paint Coatings and Plastics
DIN 75220	Aging of Automotive Components in Solar Simulation Units

GM (General Motors Engineering Standards - Procedures)

GMW14829 & GM 9071P	Tape Adhesion Test for Paint Finishes

ISO (International Standards Organization)

ISO 105-A02	Color Fastness to Artificial Light
ISO 2813	Measurement of Specular Gloss of Non-Metallic Paint Films
ISO 4628	Paints and Varnishes-Evaluation of Degradation of Paint Coatings-Degradation of Intensity, Quality and Size of Common Types of Defect

SAE (Society of Automotive Engineers)

SAE J1545	Instrumental Color Difference Measurement for Exterior Finishes, Textiles, and Colored Trim (A)
SAE J1767	Instrumental Color Difference Measurement of Colorfastness of Automotive Interior Trim Materials

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[2]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.

"*Using customer-specified methods directly related to the types of tests listed above.*"

GM 4298P (Superseded 10/2011)
GM 9125P (Withdrawn 05/2013)
GM 9540P (Superseded 03/2013)
GM 9071P (Inactive 09/2012)
SAE J2334:2003 (Stabilized 04/15/2016)

Accredited Laboratory

A2LA has accredited

ATLAS WEATHERING SERVICES GROUP

Mt. Prospect, IL

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 7th day of June 2022

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 717.05
Valid to August 31, 2024
Revised August 25, 2023

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