

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

ATLAS WEATHERING SERVICES GROUP 16100 SW 216th Street Miami, FL 33170

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MECHANICAL

Valid To: May 31, 2020 Certificate Number: 717.02

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

<u>Weathering in a Sub-Tropical Environment</u>: Direct and under glass exposures at fixed or variable angle using standard panel racks, special mounting racks; black boxes; automotive interior large component/assembly cabinets; outdoor accelerated exposures using solar tracking racks with and without wetting; special fixtures designed to meet specific client needs, complete climatological data acquisition and reporting.

<u>Evaluations</u>: 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, thickness, transmittance, whiteness index, yellowness index.

On the following products or materials: adhesives & sealants, agricultural & forest products, automotive products (including whole cars), 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.

REFERENCE STANDARDS APPLICABLE TO OUTDOOR WEATHERING AND EVALUATIONS

AAMA (American Architectural Manufacturers Association)

AAMA 613, 7.11	Voluntary Specification, Performance Requirements and Test Procedures For Organic Coatings on Plastic Profiles
AAMA 614, 7.9	Voluntary Specification, Performance Requirements and Test Procedures For High Performance Organic Coatings on Plastic Profiles
AAMA 615, 7.9	Voluntary Specification, Performance Requirements and Test Procedures For Superior Performance Organic Coatings on Plastic Profiles
AAMA 623, 6.11	Voluntary Specification, Performance Requirements and Test Procedures For Organic Coatings on Fiber Reinforced Thermoset Profiles

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AAMA (American Architectural Manufacturers Association) (cont)

AAMA 624, 7.13	Voluntary Specification, Performance Requirements and Test Procedures For High Performance Organic Coatings on Fiber Reinforced Thermoset Profiles
AAMA 625, 7.13	Voluntary Specification, Performance Requirements and Test Procedures For Superior Performance Organic Coatings on Fiber Reinforced Thermoset Profiles
AAMA 633, 7.10	Voluntary Specification, Performance Requirements and Test Procedures for Exterior Stain Finishes on Wood, Cellulosic Composites and Fiber Reinforced Thermoset Window and Door Components
AAMA 643, 7.3.2	Voluntary Specification, Performance Requirements and Test Procedures for Solar Reflective Finishes
AAMA 2603, 6.1, 6.2, 6.4 & 6.8	Voluntary Specification, Performance Requirements and Test Procedures For Pigmented Organic Coatings on Aluminum Extrusions and Panels
AAMA 2604, 7.1, 7.2, 7.4 & 7.9	Voluntary Specification, Performance Requirements and Test Procedures For High Performance Organic Coatings on Aluminum Extrusions and Panels
AAMA 2605, 7.1, 7.2, 7.4 & 7.9	Voluntary Specification, Performance Requirements and Test Procedures For Superior Performing Organic Coatings on Aluminum Extrusions and Panels

AATCC (American Association of Textile Chemists & Colorists)

AATCC - 001	Gray Scale for Color Change
AATCC – 111	Weather Resistance (Options A and B) Exposure (Section 10) Colorfastness (Section 11.1.3 only)

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 D1006	Conducting Exterior Exposure Tests of Paints on Wood
ASTM D1014	Conducting Exterior Exposure Tests of Paints on Steel
ASTM D1435	Outdoor Weathering of Plastics
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 D3274	Evaluating Degree of Surface Disfigurement of Paint Films by Fungal or Algal Growth, or Soil and Dirt Accumulation
ASTM D3359	Measuring Adhesion by Tape Test

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ASTM (American Society for Testing and Materials) (cont)

ASTM D3679	Standard Specifications for Rigid Poly (Vinyl Chloride) (PVC) Siding (Sections 6.10, 6.11, and 6.13)
ASTM D4141	Conducting Accelerated Outdoor Exposure Tests of Coatings (Procedure A)
ASTM D4214	Evaluating Degree of Chalking of Exterior Paint Films
ASTM D4726	Standard Specifications for Rigid Poly (Vinyl Chloride) (PVC) Exterior Profile Extrusions Used for Assembled Windows and Doors (Section 7.1 only)
ASTM D6675	Accelerated Outdoor Cosmetic Corrosion Testing of Organic Coatings on Automotive Sheet Metal
ASTM D6864	Standard Specification for Color and Appearance Retention of Solid Colored Plastic Siding Products
ASTM D7091	Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nonconductive Coating to Non-Ferrous Metals
ASTM D7251	Standard Specification for Color and Appearance Retention of Variegated Color Plastic Siding Products
ASTM D7254	Standard Specification for Polypropylene (PP) Siding (Section 6.3)
ASTM D7793	Outdoor Exposure of Vinyl Siding
ASTM D7856	Color and Appearance Retention of Solid and Variegated Color Plastic Siding Products using CIELab Color Space
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 E1349	Reflectance Factor by Spectrophotometry Using Bi-directional Geometry
ASTM E1799	Standard Practice for Visual Inspections of Photovoltaic Modules
ASTM G7	Atmospheric Environmental Exposure Testing of Nonmetallic Materials
ASTM G24	Conducting Exposures to Daylight Filtered Through Glass
ASTM G147	Conditioning and Handling of Nonmetallic Materials for Natural and Artificial Weathering Tests
ASTM G201	Conducting Exposures in Outdoor Glass-Covered Exposure Apparatus with Air Circulation

CLP (Chrysler Laboratory Procedures)

LP-463kb-19-01 Outdoor Exposure Trim Materials

CRRC (Cool Roof Rating Council)

ANSI/CRRC-	Standard Test Methods for Determining Radiative Properties of Materials
S100 (Section	
S.2.6)	

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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

EN (European Standard)

EN 13523-14 Chalking (Helmen Method)

FLTM (Ford Laboratory Test Methods)

BI (Paints and Solvents, Physical Test Method):

BI 160-01 Florida Outdoor Exposure

BI 110-01 Measurement of the Gloss of Paint Panels

GM (General Motors Engineering Standards – Procedures)

GMW 3417	Natural Weathering Exposure Tests for Interior Trims/Materials
GM 9163P ¹ ; GMW14873	Outdoor Weathering of Automotive Exterior Materials
GM 9327P ¹	Exterior Weatherability of Integrally Colored Plastics
GM 9538P	Weathering Exposure Tests for Interior Trims
GM 9071P ¹ ; GMW14829	Tape Adhesion Test for Paint Finishes

ISO (International Standards Organization)

ISO 105, Part A02	Color Fastness to Artificial Light
ISO 105, Part B01	Color Fastness to Light; Daylight
ISO 105, Part B03	Color Fastness to Weathering: Outdoor Exposure
ISO 877-1	Plastics-Methods of Exposure to Direct Weathering, to Weathering Under Glass-Filtered Daylight, and to Intensified Weathering by Daylight Using Fresnel Reflector (Methods A, B)
ISO 877-2	Direct Weather and Exposure Behind Window Glass
ISO 2810	Paint and Varnishes - Notes for Guidance on the Conduct of Natural Weathering Tests
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

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MERCEDES-BENZ

DBL7384 (Section 5.13)

Soft Feeling Paints on Plastic Parts – Interior Components

SAE (Society of Automotive Engineers)

SAE J576 Plastic Materials for Use in Optical Parts Such as Lenses and Reflectors of Motor Vehicle Lighting Devices. Optical and Chromaticity Measurements (Sections 4.4 and 5.2.2) Conducted at Atlas (DSET). Instrumental Color Difference Measurement for Exterior Finishes, Textiles, and **SAE J1545** Colored Trim (A)

Instrumental Color Difference Measurement of Colorfastness of Automotive Interior

Trim Materials

SAE J1976 Outdoor Weathering of Exterior Materials

VSI (Vinyl Siding Institute)

Protocols for the Conduct of Outdoor Weathering Studies of Plastic Siding and VSI Outdoor Weathering Related Products

Practice

SAE J1767

Temperature Measurements

 $(-10 \text{ to } +200) \, ^{\circ}\text{C}$ Thermocouple Temperature Measurements.

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.

GM 9163P (Suspended 09/2011)

GM 9327P (Suspended 04/2012)

GM 9071P (Suspended 09/2012)

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Accredited Laboratory

A2LA has accredited

ATLAS WEATHERING SERVICES GROUP

Miami, FL

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005

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).

SEAL 1978 A 2LA

Presented this 25th day of June 2018.

President & CEO

For the Accreditation Council Certificate Number 717.02 Valid to May 31, 2020