



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

ARIZONA DESERT TESTING, LLC
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MECHANICAL

Valid To: May 31, 2020

Certificate Number: 1507.01

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

Weathering in a Desert Natural Environment: Direct and under glass exposures at fixed or variable angle using standard panel racks, special fixtures designed to meet specific client needs, climatological data acquisition and reporting.

Outdoor Accelerated Weathering: Using solar tracking racks, ACUVEX® Fresnel-reflector solar concentrator devices with and without wetting, solar tracking under glass exposures for automotive interior materials.

Evaluations: Visual inspection for all property changes detectable to the unaided eye or under magnification. Instrumental determination of chalking, chromaticity coordinates, color change, gloss, haze, thickness, weight, whiteness index, yellowness index and others.

On the Following Products or Materials: Adhesives and sealants, agricultural and forest products, automotive products (including whole cars), aviation and aerospace materials, building materials (most applications and substrates), ceramics, coatings, composites, dyes, films and packaging, gaskets, seals and packings, geosynthetics, glass and glass products, inks, leather, paper, paperboard and pulp, photodegradables, plastics and polymers, rubber and rubber products, textiles, windows and doors, wood and wood products.

Using the Following Test Methods and Specifications¹:

AATCC (American Association of Textile Chemists & Colorists)

AATCC - 001 Gray Scale for Color Change, Procedure 1
AATCC - 016 Colorfastness to Light
AATCC - 111 Weather Resistance, Procedures B & D

ASTM (American Society for Testing and Materials)

ASTM D523 Specular Gloss
ASTM D1003 Haze and Luminous Transmittance of Transparent Plastics
(Non-Conditioned Samples)

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ASTM (continued)

ASTM D1014	Conducting Exterior Exposure Tests of Paints on Steel (<i>Except Black Box</i>)
ASTM D1435	Outdoor Weathering of Plastics
ASTM D2244	Calculation of Color Difference from Instrumentally Measured Color Coordinates
ASTM D3679	Standard Specifications for Rigid Poly Vinyl Chloride (PVC) Siding (Section 6.10)
ASTM D3841	Glass-Fiber-Reinforced Polyester Plastic Panels (Section 8.8)
ASTM D4141	Conducting Accelerated Outdoor Exposure Tests of Coatings
ASTM D4214	Evaluating Degree of Chalking of Exterior Paint Films
ASTM D4364	Performing Accelerated Outdoor Weathering of Plastics Using Concentrated Sunlight
ASTM D4726	Standard Specifications for Rigid Poly (Vinyl Chloride) (PVC) Exterior Profile Extrusions Used for Assembled Windows and Doors (Section 7.1)
ASTM D5105	Performing Accelerated Outdoor Weathering of Pressure Sensitive Tapes using Concentrated Natural Sunlight
ASTM D5722	Performing Accelerated Outdoor Weathering of Factory Coated Embossed Hardboard Using Concentrated Natural Sunlight and a Soak-Freeze-Thaw Procedure
ASTM E313	Indexes of Whiteness and Yellowness of Near-White Opaque Materials
ASTM E1164	Obtaining Spectrometric Data for Object Color Evaluation
ASTM G7	Atmospheric Environmental Exposure Testing of Nonmetallic Materials
ASTM G24	Conducting Natural Light Exposures Under Glass
ASTM G90	Performing Accelerated Outdoor Weathering of Nonmetallic Materials Using Concentrated Natural Sunlight
ASTM G201	Conducting Exposures in Outdoor Glass Covered Exposure Apparatus with Air Circulation

FLTM (Ford Laboratory Test Methods)

BI-160-01 ²	Florida and Arizona Outdoor Exposure
DVM-0020	AVT Material, Fasteners, and Corrosion Protection Engineering Design Verification Method (DVM)

Federal Motor Vehicle Safety Standards

FMVSS 108	Plastic Optical Materials (S14.4.2)
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GM (General Motors Engineering Standards - Procedures)

GM 9071P	Tape Adhesion Test for Paint Finishes
GM 9163P	Outdoor Weathering of Automotive Exterior Materials
GM 9327P	Exterior Weatherability of Integrally Colored Plastics
GM 9538P	Weathering Exposure Tests Interior Trim
GM 9771P	Fiber Degradation of Automotive Textiles (<i>Except roller per GM drawing FBRD001.dwg</i>)
GMW 3387	Procedure for Determining Fiber Degradation of Automotive Textiles
GMW 3417	Natural Weathering Tests for Interior Trims/Materials
GMW 14444	Material Related Interior Part Performance (Section 3.3.3.3)
GMW 14829	Tape Adhesion Test for Paint Finished
GMW 14873	Outdoor Weathering of Automotive Exterior Materials (<i>Except Section 6.2 Hardness</i>)

PF (Chrysler LLC Performance Standard)

PF-11365 Instrument Panel Module System Requirements (Section 3.1.7)

ISO (International Standards Organization)

ISO 105-A02 Grey Scale for Assessing Change in Colour
ISO 877-2 Direct Weathering and Exposure Behind Window Glass
ISO 877-3 Intensified Weather using Concentrated Solar Radiation
ISO 2810 Paint and Varnishes - Notes for Guidance on the Conduct of Natural Weathering Tests

SAE (Society of Automotive Engineers)

SAE J576 Plastic Materials for Use in Optical Parts Such as Lenses and Reflectors of Motor Vehicle Lighting Devices
SAE J578 Color Specification
SAE J1545 Instrumental Color Difference Measurement for Exterior Finishes, Textiles, and Colored Trim
SAE J1961 Accelerated Exposure of Automotive Exterior Materials Using a Solar Fresnel Reflector Apparatus
SAE J1976 Outdoor Weathering of Exterior Materials (Procedure A only)

Arizona Desert Testing Internal Procedures

TP-14 Specimen Weight Measurements (0 to 200) g
TP-18 Specimen Dimension Measurements (0.001 to 6.00) in
TP-19 Oven Heat Testing

¹ When the date, revision or edition of a test method standard is not identified on the scope of accreditation, the laboratory is required to be using the current version within one year of the date of publication, per part C., Section 1 of A2LA R101 - *General Requirements- Accreditation of ISO-IEC 17025 Laboratories*. If a specifier/regulator imposes a different transition period, this will supersede the A2LA one year implementation period.

² *Except for Visual Color Evaluation. If Color Measurement is Required, Done Instrumentally.*





Accredited Laboratory

A2LA has accredited

ARIZONA DESERT TESTING, LLC

Wittmann, AZ

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*).



Presented this 19th day of June 2018.

A handwritten signature in black ink, written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 1507.01
Valid to May 31, 2020

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