

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

ARIZONA DESERT TESTING, LLC  
21212 West Patton Road  
Wittmann, AZ 85361  
William J. Putman Phone: 623 388 9500

MECHANICAL

Valid To: May 31, 2012

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

Using the Following Test Methods and Specifications:

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)

(A2LA Cert. No. 1507.01) 06/11/2010



Page 1 of 3

ASTM (continued)

ASTM D1014	Conducting Exterior Exposure Tests of Paints on Steel (Except Black Box)
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 E308	Practice for Computing the Colors of Objects by Using the CIE System
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 <sup>1</sup>	Florida and Arizona Outdoor Exposure
DVM-0020	AVT Material, Fasteners, & Corrosion Protection Engineering Design Verification Method (DVM)

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 (except roller per GM drawing FBRD001.dwg)
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 (Except Section 6.2 Hardness)

PF (Chrysler LLC Performance Standard)

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

ISO (International Standards Organization)

ISO 105 B01 Color Fastness to Light; Daylight  
ISO 105 B03 Color Fastness to Weathering: Outdoor Exposure  
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 (A)  
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) inches  
TP-19 Oven Heat Testing

<sup>1</sup>*Except for Visual Color Evaluation. If Color Measurement is Required, Done Instrumentally.*



The American Association for Laboratory Accreditation

World Class Accreditation

# *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 8 January 2009*).

Presented this 11<sup>th</sup> day of June 2010.



A handwritten signature in black ink, appearing to read "Peter Meyer".

President & CEO  
For the Accreditation Council  
Certificate Number 1507.01  
Valid to May 31, 2012

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