



THE AMERICAN ASSOCIATION FOR  
LABORATORY ACCREDITATION

## ACCREDITED LABORATORY

A2LA has accredited

**Q-LAB WEATHERING RESEARCH SERVICE**  
**Homestead, 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 18 June 2005*).



Presented this 4<sup>th</sup> day of September 2007.

A handwritten signature in cursive script, appearing to read "Peter Abney".

President  
For the Accreditation Council  
Certificate Number 0859.01  
Valid to September 30, 2009

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

SCOPE OF ACCREDITATION TO ISO/IEC GUIDE 17025:2005

Q-LAB WEATHERING RESEARCH SERVICE

1005 S.W. 18<sup>th</sup> Avenue

Homestead, FL 33034

Matthew Friday Phone: 305 245 5600

MECHANICAL

Valid To: August 30, 2009

Certificate Number: 0859.01

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

Weathering and corrosion testing to determine material durability using outdoor and laboratory accelerated methods

Direct exposure, black box, and under glass exposures with backed and unbacked mounting

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

using the following test methods:

**Outdoor Weathering Tests**

High Performance Organic Coatings on Fiber Reinforced Thermoset

Pigmented Organic Coatings on Aluminum Extrusion and Panels

High Performance Organic Coatings on Aluminum Extrusion and Panels

Superior Performing Organic Coatings on Aluminum Extrusion  
and Panels

Weather Resistance of Textiles

Outdoor Weathering Sealants

Exterior Exposure of Paints on Wood

Exterior Exposure of Paints on Steel

Outdoor Weathering of Plastics

Lightfastness and Weatherability of Printed Matter (Method 1, 2)

Exterior Exposure Test of Paint Films to Microbiological Attack

Standard Spec for Rigid Poly (Vinyl Chloride) (PVC) Siding

Conducting Accelerated Outdoor Exposure Tests of Coatings

Lightfastness of Colorants used in Artists Materials (Method A)

Standard Spec for Rigid Poly (Vinyl Chloride) (PVC) Exterior

Profile Extrusions used for Assembled Windows and Doors

Outdoor Exposure Testing of Photodegradable Plastics

Salt Accelerated Outdoor Corrosion Test

Plastic Siding Weathering

Color and Appearance Retention of Variegated Color Plastic Siding

Atmospheric Environmental Exposure Testing of Nonmetallic Materials

Conducting Exposures to Daylight Filtered Through Glass

Outdoor Corrosion Test

Coating Materials and Coatings Systems for Exterior Wood

**Test Method**

AAMA 624

AAMA 2603

AAMA 2604

AAMA 2605

AATCC TM 111\*

ASTM C1589

ASTM D1006\*

ASTM D1014

ASTM D1435\*

ASTM D3424

ASTM D3456\*

ASTM D3679\*

ASTM D4141

ASTM D4303

ASTM D4726\*

ASTM D5272\*

ASTM D6675

ASTM D6864\*

ASTM D7251\*

ASTM G7\*

ASTM G24

ASTM G50\*

EN 927 Part 3

**Outdoor Weathering Tests (continued)**

Florida and Arizona Outdoor Exposure Test  
Outdoor Weathering of Automotive Exterior Materials

Textiles-Tests for Colorfastness to Light; Daylight  
Plastics-Method of Exposure to Weathering, Direct, Under Glass, and  
Using Fresnel Mirrors  
Paints and Varnishes: Natural Weathering  
Outdoor Exposure of Trim Materials  
Florida Exposure Testing of Painted Surfaces  
Plastic Materials for Optical Parts  
Outdoor Weathering of Exterior Materials

**Test Method**

FLTM BI 160-01  
GM 9163P (Disc. 06);  
GMW 14873  
ISO 105 B01  
ISO 877  
  
ISO 2810  
LP463-KB19-01  
LP463-PB34-01  
SAE J576  
SAE J1976\*

**Laboratory Testing**

Colorfastness to Light (UV, Xenon only)  
Weather Resistance of Textiles: Xenon Lamp Exposure  
Weather Resistance: UV Light and Moisture Exposure  
Salt Spray (Fog) Testing  
Copper Acetic Acid Salt Spray (CASS) Test  
Accelerated Weathering of Solvent-Release-Type Sealants  
Accelerated Weathering of Sealants (UV, Xenon only)  
Color Stability of Building Sealants  
Exposure of Adhesives to Artificial Light  
Water Resistance of Coatings using Water Fog Apparatus  
Water Resistance to 100% Relative Humidity  
Xenon Arc Exposure of Plastics Intended for Outdoor Applications  
Filiform Corrosion  
Lightfastness and Weatherability of Printed Matter (Method 3, 4)  
Lightfastness of Colorants used in Artists' Materials (Method B, C)  
Fluorescent UV Exposure of Plastics  
Deterioration of Geotextiles by Exposure in Xenon Arc (Exposure Only)  
Xenon Arc Exposure of Plastics for Indoor Applications  
Testing Water Resistance of Coatings Using Controlled Condensation  
Conducting Tests on Paints and Related Coatings and Materials using  
a Fluorescent UV-Condensation Light- and Water-Exposure Apparatus  
Accelerated Testing Color Stability of Indoor Plastics (Method III, IV)  
Practice for Accelerated Weathering of Bituminous Materials  
(Xenon Arc)  
Practice for Accelerated Weathering of Bituminous Materials  
(Fluorescent UV and Condensation)  
Exposure of Photodegradable Plastics in a Xenon Arc Apparatus  
Fluorescent Ultraviolet (UV) Exposure of Photodegradable Plastics  
Cyclic Salt Fog/UV Exposure of Painted Metal  
Accelerated Weathering of Pressure Sensitive Tapes (Xenon-Arc)  
Specification for Polyolefin Based Plastic Lumber Decking Boards  
Xenon Arc Exposure of Paint and Related Coatings  
Accelerated Light Aging of Printing and Writing Paper by Xenon Arc  
Exposure Apparatus  
Accelerated Acid Etch Weathering of Automotive Clearcoats (Xenon-Arc)  
Lightfastness Indoor Inks Fluorescent Lighting (Except 11.2)  
Lightfastness Indoor Inks Xenon with Widow Filters  
Operating Light Exposure Apparatus (Xenon Arc Type) With and  
Without Water for Exposure of Nonmetallic Materials

**Test Method**

AATCC TM 16  
AATCC TM 169  
AATCC TM 186  
ASTM B117  
ASTM B368  
ASTM C1257  
ASTM C1442  
ASTM C1501  
ASTM D904  
ASTM D1735  
ASTM D2247  
ASTM D2565  
ASTM D2803  
ASTM D3424  
ASTM D4303  
ASTM D4329  
ASTM D4355  
ASTM D4459  
ASTM D4585  
ASTM D4587  
  
ASTM D4674  
ASTM D4798  
  
ASTM D4799  
  
ASTM D5071  
ASTM D5208  
ASTM D5894  
ASTM D6551/D6551M  
ASTM D6662  
ASTM D6695  
ASTM D6789  
  
ASTM D7356  
ASTM F1945  
ASTM F2366  
ASTM G26 (Disc. 96)

**Laboratory Testing (continued)**

Operating Light- and Water-Exposure Apparatus (Fluorescent UV-Condensation Type) for Exposure of Nonmetallic Materials  
Modified Salt Spray (Fog) Testing  
Exposing Nonmetallic Materials in Accelerated Test Devices that use Laboratory Light Sources  
Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials  
Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials  
Exposure of Wood Coatings to Artificial Weathering Using Fluorescent UV and Water  
Coil Coated Metals – Resistance to Salt Spray (Fog)  
Salt Spray Resistance Test for Painted Panels and Parts  
Water Immersion Test for Painted Panels and Parts  
Salt Spray Test  
Water Fog Humidity Test  
Laboratory Accelerated Exposure of Automotive Materials (UV) Automotive Environmental Cycling Cycle O  
Scab Corrosion Creepback of Paint Systems on Metal Substrates  
Cyclic Corrosion Laboratory Test  
Accelerated Corrosion Test  
Plastics-Exposure to Laboratory Light Sources; General Guidance  
Plastics-Exposure to Laboratory Light Sources; Xenon Arc  
Plastics-Exposure to Laboratory Light Source; Fluorescent UV  
Paint and Varnishes – Resistance to Neutral Salt Spray  
Xenon Arc Testing for Paints  
Fluorescent UV Test on Paints  
Weatherability for Automotive Parts (UV, Xenon only)  
Method 505.4 Solar Radiation (Sunshine) Procedure II, Actinic Effects  
Corrosion Protection  
Accelerated Exposure of Automotive Exterior Materials using a Fluorescent UV and Condensation Apparatus  
Cosmetic Corrosion Lab Test  
Accelerated Exposure Automotive Interior Trim Components using a Controlled Irradiance Xenon-Arc Apparatus  
Performance Based Standard for Accelerated Exposure of Automotive Exterior Materials using a Controlled Irradiance Xenon-Arc Apparatus

**Test Method**

ASTM G53 (Disc. 96)  
  
ASTM G85  
ASTM G151  
  
ASTM G154  
  
ASTM G155  
  
EN 927-6  
  
EN 13523-8  
FLTM BI 103-01  
FLTM BI 104-01  
GM 4298P  
GM 4465P  
GM 9125P  
GM 9505P  
GM 9511P  
GMW 14872  
GM 9540P  
ISO 4892 Part 1  
ISO 4892 Part 2  
ISO 4892 Part 3  
ISO 7253  
ISO 11341  
ISO 11507  
JIS D0205  
MIL STD 810F  
SAE J1959  
SAE J2020  
  
SAE J2334  
SAE J2412  
  
SAE J2527

**Evaluation Methods**

Gray Scale for Color Change  
Instrumental Color Measurement  
Visual Assessment of Color Difference of Textiles  
Test Method for Specular Gloss  
Evaluating Degree of Rusting on Painted Steel Surfaces  
Evaluating Degree of Checking of Exterior Paints  
Evaluating Degree of Cracking of Exterior Paints  
Evaluating Degree of Erosion of Exterior Paints  
Evaluating Degree of Blistering of Paints  
Evaluating Degree of Flaking (Scaling) of Exterior Paints  
Haze and Transmittance of Transparent Plastics (Method B)  
Evaluation of Painted or Coated Specimens to Corrosive Environments

**Test Method**

AATCC EP1  
AATCC EP6  
AATCC EP9  
ASTM D523\*  
ASTM D610  
ASTM D660  
ASTM D661  
ASTM D662  
ASTM D714  
ASTM D772  
ASTM D1003  
ASTM D1654

**Evaluation Methods (continued)**

Visual Evaluation of Color Difference of Opaque Materials	ASTM D1729
Calculation of Color Differences from Instrumentally Measured Color Coordinates	ASTM D2244*
Evaluation of Visual Colors Difference with a Gray Scale	ASTM D2616
Evaluating Degree of Surface Disfigurement of Paint Films by Microbial Growth or Dirt Accumulation	ASTM D3274
Quantifying Dirt Collection on Coated Exterior Panels	ASTM D3719
Evaluating the Degree of Chalking of Exterior Paint Films	ASTM D4214
Instrumental Measurement of Distinctness-of-Image Gloss of Coating Surfaces	ASTM D5767
Computing the Colors of Objects by Using the CIE System	ASTM E308
Calculating Yellowness and Whiteness Indices from Instrumentally Measured Color Coordinates	ASTM E313
Measurement of High-Gloss Surfaces by Goniophotometry (Method A)	ASTM E430
Color and Color Difference Measurement	ASTM E1347
Coil Coated Metals – Test Methods Part 21: Evaluation of Outdoor Exposed Panels	EN 13523-21
Determination of Specular Gloss of Non-Metallic Paint Films at 20°, 60°, and 85°	ISO 2813
Evaluation of Color and Pigments	ISO 4582
Paints and Varnishes Evaluation of Degradation of Coatings Parts 1 through 8, 10	ISO 4628
Instrumental Color Difference Measurement for Exterior Finishes, Textiles, and Trim	SAE J1545
Instrumental Color of Automotive Trim Material	SAE J1767

**Mechanical Methods**

Elongation of Attached Organic Coatings with Mandrel Bend Apparatus	<b><u>Test Method</u></b> ASTM D522
Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coating Applied to a Ferrous Base (Method B)	ASTM D1186-93
Nondestructive Measurement of Dry Film Thickness of Nonconductive Coating Applied to a Nonferrous Metal Base	ASTM D1400-94
Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)	ASTM D2794
Chipping Resistance of Coatings	ASTM D3170
Measuring Adhesion by Tape Test	ASTM D3359
Film Hardness by Pencil Test	ASTM D3363
Abrasion Resistance of Organic Coatings by Taber Abraser	ASTM D4060
Impact Resistance of Rigid PVC Building Products	ASTM D4226
Dry Film Thickness of Ferrous and Non-Ferrous Metals	ASTM D7091
Solar Energy Transmittance and Reflectance (Terrestrial) of Sheet Materials (Method B)	ASTM E424
Conditioning and Handling of Nonmetallic Materials for Natural and Artificial Weathering Tests	ASTM G147
High Performance Stone Chip Test	FLTM BI 157-04
High Performance Stone Chip Resistance Test New Rating Scale	FLTM BI 157-06
Tape Adhesion Test for Painted Finishes	GM 9071P
Chip Resistance of Coatings (Method B)	GM 9508P
Test for Chip Resistance of Surface Coatings	SAE J400
Chip Resistance	Volvo STD 1024, 7312

**\* Northern weathering is performed at the A2LA-Accredited Q-Lab facility located at 800 Canterbury Road, Westlake, OH 44145.**