



The American Association for Laboratory Accreditation

World Class 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 8 January 2009*).

Presented this 6th day of October 2009.





President & CEO
For the Accreditation Council
Certificate Number 0859.01
Valid to September 30, 2011

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 17025:2005

Q-LAB WEATHERING RESEARCH SERVICE

1005 S.W. 18th Avenue
Homestead, FL 33034

Matthew Friday Phone: 305 245 5600
Email: mfriday@q-lab.com
Website: www.q-lab.com

MECHANICAL

Valid To: September 30, 2011

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

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*

Outdoor Weathering Tests (continued)

Conducting Exposures to Daylight Filtered Through Glass
Outdoor Corrosion Test
Coating Materials and Coatings Systems for Exterior Wood
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
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

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
Low Temperature Flexibility of Latex Sealants after Artificial Weathering
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 Acid Etch Weathering of Automotive Clearcoats (Xenon-Arc)
Lightfastness Indoor Inks Fluorescent Lighting (Except 11.2)
Lightfastness Indoor Inks Xenon with Window Filters
Operating Light Exposure Apparatus (Xenon Arc Type) With and
Without Water for Exposure of Nonmetallic Materials
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

Test Method

ASTM G24
ASTM G50*
EN 927 Part 3
FLTM BI 160-01
GM 9163P (Disc. 06);
GMW 14873
ISO 105 B01
ISO 877-1, -2
ISO 2810
LP463-KB19-01
LP463-PB34-01
SAE J576
SAE J1976*

Test Method

AATCC TM 16
AATCC TM 169
AATCC TM 186
ASTM B117
ASTM B368
ASTM C734
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 D7356
ASTM F1945
ASTM F2366
ASTM G26 (Disc. 96)

ASTM G53 (Disc. 96)

ASTM G85
ASTM G151

Laboratory Testing (continued)

Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials	ASTM G154
Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials	ASTM G155
Exposure of Wood Coatings to Artificial Weathering Using Fluorescent UV and Water	EN 927-6
Coil Coated Metals – Resistance to Salt Spray (Fog)	EN 13523-8
Condensing Water Vapor Test	FLTM BI 104-02
Salt Spray Resistance Test for Painted Panels and Parts	FLTM BI 103-01
Water Immersion Test for Painted Panels and Parts	FLTM BI 104-01
Salt Spray Test	GM 4298P
Water Fog Humidity Test	GM 4465P
Laboratory Accelerated Exposure of Automotive Materials (UV)	GM 9125P
Automotive Environmental Cycling Cycle O	GM 9505P
Scab Corrosion Creepback of Paint Systems on Metal Substrates	GM 9511P
Cyclic Corrosion Laboratory Test	GMW 14872
Plastics-Exposure to Laboratory Light Sources; General Guidance	ISO 4892 Part 1
Plastics-Exposure to Laboratory Light Sources; Xenon Arc	ISO 4892 Part 2
Plastics-Exposure to Laboratory Light Source; Fluorescent UV	ISO 4892 Part 3
Paint and Varnishes – Resistance to Neutral Salt Spray	ISO 7253
Corrosion Tests in Artificial Atmosphere- Salt Spray Tests	ISO 9227
Xenon Arc Testing for Paints	ISO 11341
Fluorescent UV Test on Paints	ISO 11507
Weatherability for Automotive Parts (UV, Xenon only)	JIS D0205
Solar Radiation (Sunshine) Procedure II, Actinic Effects	MIL-STD-810
Corrosion Protection	SAE J1959
Accelerated Exposure of Automotive Exterior Materials using a Fluorescent UV and Condensation Apparatus	SAE J2020
Cosmetic Corrosion Lab Test	SAE J2334
Accelerated Exposure Automotive Interior Trim Components using a Controlled Irradiance Xenon-Arc Apparatus	SAE J2412
Performance Based Standard for Accelerated Exposure of Automotive Exterior Materials using a Controlled Irradiance Xenon-Arc Apparatus	SAE J2527
Exposure Test for Determining the Tackiness of Polypropylene Parts	VW PV 1306
Non-Metallic Materials, Weathering in Dry, Hot Climate	VW PV 3929
Non- Metallic Materials, Weathering in Moist, Hot Climate	VW PV 3930

Evaluation Methods

	<u>Test Method</u>
Gray Scale for Color Change	AATCC EP1
Instrumental Color Measurement	AATCC EP6
Visual Assessment of Color Difference of Textiles	AATCC EP9
Test Method for Specular Gloss	ASTM D523*
Evaluating Degree of Rusting on Painted Steel Surfaces	ASTM D610
Evaluating Degree of Checking of Exterior Paints	ASTM D660
Evaluating Degree of Cracking of Exterior Paints	ASTM D661
Evaluating Degree of Erosion of Exterior Paints	ASTM D662
Evaluating Degree of Blistering of Paints	ASTM D714
Evaluating Degree of Flaking (Scaling) of Exterior Paints	ASTM D772
Haze and Transmittance of Transparent Plastics (Method B)	ASTM D1003
Evaluation of Painted or Coated Specimens to Corrosive Environments	ASTM D1654
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

Evaluation Methods (continued)

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
Computing the Colors of Objects by Using the CIE System	ASTM E308
Calculating Yellowness and Whiteness Indices from Instrumentally Measured Color Coordinates	ASTM E313
Color and Color Difference Measurement	ASTM E1347
Coil Coated Metals – Test Methods Pt 21: Evaluation of Outdoor Exposed Panels	EN 13523-21
Grey Scale for Assessing Change in Colour	ISO 105-A02
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	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	ASTM E424, Method B
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, 7132

* This accreditation covers testing at this site, as well as the test exposures at the Q-Lab facility located at 800 Canterbury Road, Westlake, OH 44145.