



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Q-LAB FLORIDA
 1005 S.W. 18th Avenue
 Homestead, FL 33034
 Michael Crewdson Phone: 305 245 5600
 Email: mcrewatson@q-lab.com
 Website: www.q-lab.com

MECHANICAL

Valid To: September 30, 2018

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 weathering and corrosion tests:

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, Photovoltaic, and Solar Heating materials

Using the following test methods:

Outdoor Weathering Tests

Test Method(s)

Specification for Rigid Poly (Vinyl Chloride) (PVC) Exterior Profiles	AAMA 303 Weatherability
Test Procedures for Organic Coatings on Plastic Profiles	AAMA 613 Weathering, South Florida
Test Procedures for High Performance Organic Coatings on Plastic Profiles	AAMA 614 Weathering, South Florida
Test Procedures for Superior Performing Organic Coatings on Plastic Profiles	AAMA 615 Weathering, South Florida
Test Procedures for Organic Coatings on Fiber Reinforced Thermoset Profiles	AAMA 623 Weathering, South Florida
High Performance Organic Coatings on Fiber Reinforced Thermoset Profiles	AAMA 624 Weathering, South Florida

Outdoor Weathering Tests (continued)

Test Method(s)

Test Procedures for Superior Performance Organic Coatings on Fiber Reinforced Thermoset Profiles	AAMA 625 Weathering, South Florida
Pigmented Organic Coatings on Aluminum Extrusion and Panels	AAMA 2603 Weathering, South Florida
High Performance Organic Coatings on Aluminum Extrusion and Panels	AAMA 2604 Weathering, South Florida
Superior Performing Organic Coatings on Aluminum Extrusion and Panels	AAMA 2605 Weathering, South Florida
Weather Resistance of Textiles	AATCC TM 111 ¹
Outdoor Weathering Sealants	ASTM C1589
Exterior Exposure of Paints on Wood	ASTM D1006 ¹
Exterior Exposure of Paints on Steel	ASTM D1014
Outdoor Weathering of Plastics	ASTM D1435 ¹
Lightfastness and Weatherability of Printed Matter	ASTM D3424 Method 1 & 2
Exterior Exposure Test of Paint Films to Microbiological Attack	ASTM D3456 ¹
Standard Spec for Rigid Poly (Vinyl Chloride) (PVC) Siding	ASTM D3679 ¹
Conducting Accelerated Outdoor Exposure Tests of Coatings	ASTM D4141
Lightfastness of Colorants used in Artists Materials	ASTM D4303 Methods A & C
Standard Spec for Rigid Poly (Vinyl Chloride) (PVC) Exterior Profile Extrusions used for Assembled Windows and Doors	ASTM D4726 ¹
Outdoor Exposure Testing of Photodegradable Plastics	ASTM D5272 ¹
Salt Accelerated Outdoor Corrosion Test	ASTM D6675
Plastic Siding Weathering	ASTM D6864 ¹
Standard Specification for Insulated Siding	ASTM D7793 ¹
Color and Appearance Retention of Variegated Color Plastic Siding	ASTM D7251 ¹
Color and Appearance Retention of Solid and Variegated Color Plastic Siding Products using CIELab Color Space	ASTM D7856
Atmospheric Environmental Exposure Testing of Nonmetallic Materials	ASTM G7 ¹
Conducting Exposures to Daylight Filtered Through Glass	ASTM G24
Outdoor Corrosion Test	ASTM G50 ¹
Coating Materials and Coatings Systems for Exterior Wood	EN 927 Part 3
Coil Coated Metals - Atmosphere Exposure Testing	EN 13523-19
Florida and Arizona Outdoor Exposure Test	FLTM BI 160-01
Outdoor Weathering of Automotive Exterior Materials	GM 9163P ² (withdrawn 2006); GMW 14873



Outdoor Weathering Tests (continued)

Test Method(s)

Textiles – Tests for Colorfastness to Light; Daylight	ISO 105 B01
Natural Weathering Exposure of Interior Trim/Materials	GMW 3417 Except codes F2 and F4
Plastics – Methods of Exposure to Weathering, Direct, Under Glass	ISO 877-1, -2
Paints and Varnishes: Natural Weathering	ISO 2810
Outdoor Exposure of Trim Materials	LP463-KB19-01
Florida Exposure Testing of Painted Surfaces	LP463-PB34-01
Plastic Materials for Optical Parts	SAE J576
Outdoor Weathering of Exterior Materials	SAE J1976 ¹

Accelerated Weathering Tests

Test Procedures for Organic Coatings on Plastic Profiles	AAMA 613 Humidity
Test Procedures for High Performance Organic Coatings on Plastic Profiles	AAMA 614 Humidity
Test Procedures for Superior Performing Organic Coatings on Plastic Profiles	AAMA 615 Humidity
Test Procedures for Organic Coatings on Fiber Reinforced Thermoset Profiles	AAMA 623 Humidity
High Performance Organic Coatings on Fiber Reinforced Thermoset Profiles	AAMA 624 Humidity
Test Procedures for Superior Performance Organic Coatings on Fiber Reinforced Thermoset Profiles	AAMA 625 Humidity
Pigmented Organic Coatings on Aluminum Extrusion and Panels	AAMA 2603 Humidity and Salt Spray
High Performance Organic Coatings on Aluminum Extrusion and Panels	AAMA 2604 Humidity and Salt Spray
Superior Performing Organic Coatings on Aluminum Extrusion and Panels	AAMA 2605 Humidity and Salt Spray
Colorfastness to Light	AATCC TM 16 UV, Xenon Only
Weather Resistance of Textiles: Xenon Lamp Exposure	AATCC TM 169
Weather Resistance: UV Light and Moisture Exposure	AATCC TM 186
Salt Spray (Fog) Testing	ASTM B117
Low Temperature Flexibility of Latex Sealants after Artificial Weathering	ASTM C734
Accelerated Weathering of Solvent-Release-Type Sealants	ASTM C1257
Accelerated Weathering of Sealants	ASTM C1442 UV, Xenon Only
Color Stability of Building Sealants	ASTM C1501
Exposure of Adhesives to Artificial Light	ASTM D904



Accelerated Weathering Tests (continued)

Test Method(s)

Water Resistance of Coatings Using Water Fog Apparatus	ASTM D1735
Water Resistance to 100% Relative Humidity	ASTM D2247
Xenon Arc Exposure of Plastics Intended for Outdoor Applications	ASTM D2565
Filiform Corrosion	ASTM D2803
Lightfastness and Weatherability of Printed Matter	ASTM D3424 Method 3 & 4
Lightfastness of Colorants used in Artists' Materials	ASTM D4303 Method C & D
Fluorescent UV Exposure of Plastics	ASTM D4329
Deterioration of Geotextiles by Exposure in Xenon Arc	ASTM D4355
Xenon Arc Exposure of Plastics for Indoor Applications	ASTM D4459
Testing Water Resistance of Coatings Using Controlled Condensation	ASTM D4585
Fluorescent UV Condensation Exposure of Paint and Related Coatings	ASTM D4587
Accelerated Testing Color Stability of Indoor Plastics	ASTM D4674 Method III & IV
Practice for Accelerated Weathering of Bituminous Materials	ASTM D4798/D4798M
Practice for Accelerated Weathering of Bituminous Materials	ASTM D4799 Fluorescent UV & Condensation Methods
Exposure of Photodegradable Plastics in a Xenon Arc Apparatus	ASTM D5071
Fluorescent Ultraviolet (UV) Exposure of Photodegradable Plastics	ASTM D5208
Cyclic Salt Fog/UV Exposure of Painted Metal	ASTM D5894
Accelerated Weathering of Pressure Sensitive Tapes by Xenon-Arc Exposure Apparatus	ASTM D6551/D6551M
Specification for Polyolefin Based Plastic Lumber Decking Boards	ASTM D6662
Xenon Arc Exposure of Paint and Related Coatings	ASTM D6695
Accelerated Acid Etch Weathering of Automotive Clearcoats using a Xenon Arc Exposure Device	ASTM D7356
Xenon Arc Exposure Test with Enhanced Light and Water Exposure for Transportation Coating	ASTM D7869
Lightfastness Indoor Inks Fluorescent Lighting	ASTM F1945 Except 11.2
Lightfastness Indoor Inks Xenon with Window Filters	ASTM F2366
Operating Light Exposure Apparatus (Xenon Arc Type) With and Without Water for Exposure of Nonmetallic Materials	ASTM G26-96 ² (withdrawn 2000)
Operating Light- and Water-Exposure Apparatus (Fluorescent UV-Condensation Type) for Exposure of Nonmetallic Materials	ASTM G53-96 ² (withdrawn 2000)
Modified Salt Spray (Fog) Testing	ASTM G85
Exposing Nonmetallic Materials in Accelerated Test Devices that use Laboratory Light Sources	ASTM G151



Accelerated Weathering Tests (continued)**Test Method(s)**

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
Coil Coated Metals – Resistance to Fluorescent UV and Water Condensation	EN 13523-10
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
Laboratory Accelerated Cyclic Corrosion Test	Ford CETP 00.00-L-467
Salt Spray Test	GMW 3286; GM 4298P (withdrawn 2006) ²
Water Fog Humidity Test	GM 4465P
High Humidity Test	GMW 14729
Laboratory Accelerated Exposure of Automotive Materials (UV)	GM 9125P
Automotive Environmental Cycling Cycle O	GM 9505P; GMW 14124
Scab Corrosion Creepback of Paint Systems on Metal Substrates	GMW 15288; GM 9511P (withdrawn 2007) ²
Cyclic Corrosion Laboratory Test	GMW 14872
Plastics – Exposure to Laboratory Light Sources; General Guidance	ISO 4892-1
Plastics – Exposure to Laboratory Light Sources; Xenon Arc	ISO 4892-2
Plastics – Exposure to Laboratory Light Source; Fluorescent UV	ISO 4892-3
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 (withdrawn 2013) ²
Fluorescent UV Test on Paints	ISO 11507 (withdrawn 2013) ²
Paint – Exposure to Laboratory Light Sources; General Guidance	ISO 16474-1
Paint – Exposure to Laboratory Light Sources; Xenon Arc	ISO 16474-2
Paint – Exposure to Laboratory Light Sources; Fluorescent UV	ISO 16474-3
Weatherability for Automotive Parts	JIS D0205 UV, Xenon Only
Solar Radiation (Sunshine)	MIL-STD-810 Procedure II, Actinic Effects
Corrosion Protection	SAE J1959



Accelerated Weathering Tests (continued)**Test Method(s)**

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

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 ¹
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	ASTM D1003 Method B
Evaluation of Painted or Coated Specimens to Corrosive Environments	ASTM D1654
Visual Evaluation of Color Difference of Opaque Materials	ASTM D1729
Test Method for Yellowness Index of Plastics	ASTM D1925-70 (withdrawn 1995) ²
Calculation of Color Differences from Instrumentally Measured Color Coordinates	ASTM D2244 ¹
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
Calculating Yellowness and Whiteness Indices from Instrumentally Measured Color Coordinates	ASTM E313
Spectrometric Data for Object Color Evaluation	ASTM E1164 ¹
Color by Spectrophotometry Using Hemispherical Geometry	ASTM E1331 ¹



Evaluation Methods (continued)**Test Method(s)**

Transmittance and Color by Spectrophotometry Using Hemispherical Geometry	ASTM E1348
Color by Spectrophotometry Using Bidirectional (45/0) Geometry	ASTM E1349
Coil Coated Metals – 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	ISO 4628 Parts 1 through 8 & 10
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	ASTM D1186-93 Method B (withdrawn 2006) ²
Nondestructive Measurement of Dry Film Thickness of Nonconductive Coating Applied to a Nonferrous Metal Base	ASTM D1400-94 (withdrawn 2006) ²
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
Destructive Dry Film Thickness	ASTM D4138 Procedure A
Impact Resistance of Rigid PVC Building Products	ASTM D4226
Dry Film Thickness of Ferrous and Non-Ferrous Metals	ASTM D7091
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	GMW 14829; GM 9071P (withdrawn 2005) ²
Chip Resistance of Coatings	GMW 14700; GM 9508P Method B
Test for Chip Resistance of Surface Coatings	SAE J400
Chip Resistance	Volvo STD 1024, 7132



Strength Tests**Test Method(s)**

Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension	ASTM D412
Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers	ASTM D624
Tensile Properties of Plastics	ASTM D638
Standard Test Methods for Coated Fabrics	ASTM D751
Tensile Properties of Thin Plastic Sheeting	ASTM D882
Apparent Shear Strength of Single-Lap-Joint Adhesively Bonded Metal Specimens by Tension Loading (Metal-to-Metal)	ASTM D1002
Peel Resistance of Adhesives (T-Peel Test)	ASTM D1876
Strength Properties of Adhesively Bonded Plastic Lap-Shear Sandwich Joints in Shear by Tension Loading	ASTM D3164/D3164M
Peel Adhesion of Pressure-Sensitive Tape	ASTM D3330
Strength Properties of Double Lap Shear Adhesive Joints by Tension Loading	ASTM D3528
Breaking Strength and Elongation of Textile Fabrics (Grab Test)	ASTM D5034
Breaking Force and Elongation of Textile Fabrics (Strip Method)	ASTM D5035
90 Degree Peel Resistance of Adhesives	ASTM D6862
Strip Tensile Properties of Reinforced Geomembranes	ASTM D7003
Grab Tensile Properties of Reinforced Geomembranes	ASTM D7004
Plastics – Determination of Tensile Properties	ISO 527
Metal-to-Metal Overlap Shear Strength Test for Automotive Type Adhesives, Recommended Practice	SAE J1523

¹This accreditation covers testing at this site, as well as the northern weathering exposures done at the Q-Lab facility located at 800 Canterbury Road, Westlake, OH 44145.

²This 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.





Accredited Laboratory

A2LA has accredited

Q-LAB FLORIDA

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 7th day of November 2016.

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

President and CEO
For the Accreditation Council
Certificate Number 0859.01
Valid to September 30, 2018

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