



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

ATLAS WEATHERING SERVICES GROUP

DSET LABORATORIES

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MECHANICAL

Valid until: May 31, 2010

Certificate Number: 0717.01

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

I. 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 mounting racks, black boxes, spray racks, special fixtures designed to meet specific client needs, complete climatological data acquisition and reporting.

Outdoor Accelerated Weathering: Using solar tracking racks with and without wetting; and EMMAQUA<sup>®</sup> Fresnel-reflector solar concentrator devices with and without wetting.

Evaluations: Visual inspection for all property changes detectable to the unaided eye or under magnification. Instrumental determination of chalking, chromaticity coordinates, color change, gloss, hardness, haze, heat aging, thickness, UV-VIS-NIR measurements, 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:

AAMA (American Architectural Manufacturers Association)

AAMA 624

Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Fiber Reinforced Thermoset Profiles

AATCC (American Association of Textile Chemists & Colorists)

AATCC – 001	Gray Scale for Color Change
AATCC – 183	Transmittance or Blocking of Erythemally Weighted UV Radiation through Fabrics

ASTM (American Society for Testing and Materials)

ASTM D523	Specular Gloss
ASTM D610	Evaluating Degree of Rusting on Painted Steel Surfaces
ASTM D660	Evaluating Degree Checking of Exterior Paints
ASTM D661	Evaluating Degree Cracking of Exterior Paints
ASTM D662	Evaluating Degree Erosion of Exterior Paints
ASTM D714	Evaluating Degree Blistering of Paints
ASTM D772	Evaluating Degree Flaking (Scaling) of Exterior Paints
ASTM D1003	Haze and Luminous Transmittance of Transparent Plastics
ASTM D1006	Conducting Exterior Exposure Tests of Paints on Wood
ASTM D1014	Conducting Exterior Exposure Tests of Paints on Steel
ASTM D1435	Outdoor Weathering of Plastics
ASTM D1729	Visual Evaluation of Color Difference of Opaque Materials
ASTM D2244	Calculation of Color Difference from Instrumentally Measured Color Coordinates
ASTM D2616	Evaluation of Visual Color Difference of Opaque Materials
ASTM D3274	Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation
ASTM D3359	Measuring Adhesion by Tape Test
ASTM D3679, 6.10, 6.11, 6.13	Standard Specifications for Rigid Poly (Vinyl Chloride) (PVC) Siding
ASTM D4141	Conducting Accelerated Outdoor Exposure Tests of Coatings (Proc. A, C)
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 D5722	Performing Accelerated Outdoor Weathering of Factory Coated Embossed Hardboard Using Concentrated Natural Sunlight and a Soak-Freeze-Thaw Procedure

ASTM (American Society for Testing and Materials) (cont)

ASTM D6864	Standard Specification for Color and Appearance Retention of Solid Colored Siding Products
ASTM D7091	Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nonconductive Coatings Applied to Non Ferrous Metals
ASTM D7251	Standard Specification for Color and Appearance Retention of Variegated Color Plastic Siding Products
ASTM D7254, 6.3	Standard Specification for Polypropylene (PP) Siding
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 E408	Test Methods for Total Normal Emittance of Surfaces Using Inspection - Meter Techniques
ASTM E903-96	Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres
ASTM E1331	Reflectance Factor and Color by Spectrophotometry Using Hemispherical Geometry
ASTM E1348	Transmittance and Color by Spectrophotometry Using Hemispherical Geometry
ASTM E1349	Reflectance Factor by Spectrophotometry Using Bi-directional Geometry
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 G147	Conditioning and Handling of Nonmetallic Materials for Natural and Artificial Weathering Tests
ASTM G179	Standard Specification for Metal Black Panel and White Panel

CLP (Chrysler Laboratory Test Methods)

LP 463 KB 19 01            Outdoor Exposure Trim Materials

DIN (Deutsches Institut für Normung)

DIN 6174                    Colorimetric Evaluation of Color Difference of Surface Colors According to the CIE Lab Formula (calculation for test results using ASTM E1331)

DIN 53209                  Designation of Degree of Blistering of Paint Coatings

DIN 67530                  Refractometers as a Means for Gloss Assessment of Plane Surfaces of Paint Coatings and Plastics

FLTM (Ford Laboratory Test Methods)

BI-160-01                  Arizona Outdoor Exposure

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

ISO (International Standards Organization)

ISO 105 A02                Color Fastness to Artificial Light

ISO 105 B01                Color Fastness to Light; Daylight

ISO 105 B03                Color Fastness to Weathering: Outdoor Exposure

ISO 877                    Plastics-Methods of Exposure to Direct Weathering, to Weathering Using Glass-Filtered Daylight, and to Intensified Weathering by Daylight Using Fresnel Reflector

ISO 2810                  Paint and Varnishes - Notes for Guidance on the Conduct of Natural Weathering Tests

ISO 2813                  Measurement of Specular Gloss of Non-Metallic Paint Films

ISO 4628-4,6              Paints and Varnishes-Evaluation of Degradation of Paint Coatings- Degradation of Intensity, Quality and Size of Common Types of Defect

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 J1545	Instrumental Color Difference Measurement for Exterior Finishes, Textiles, and Colored Trim (A) (calculation for test results using ASTM E1331)
SAE J1767	Instrumental Color Difference Measurement of Colorfastness of Automotive Interior Trim Materials
SAE J1961	Accelerated Exposure of Automotive Exterior Materials Using a Solar Fresnel Reflector Apparatus
SAE J1976	Outdoor Weathering of Exterior Materials
SAE J2230	Accelerated Exposure of Automotive Interior Trim Materials Using Outdoor Under-Glass Controlled Sun-Tracking Temperature and Humidity Apparatus

VSI (Vinyl Siding Institute)

VSI Outdoor Weathering Practice

Temperature Measurements

Thermocouple Temperature Measurements (-10 to 200) °C