# Partial List of Test Methods & Standards Met by QUV & QCT Weathering Testers

# General

**ASTM G151** - Standard Practice for Exposing Nonmetallic Materials in Accelerated Test Devices that Use Laboratory Light Sources

**ASTM G154** - Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Materials

BS 2782 - Part 5, Method 540B (Methods of Exposure to Lab Light Sources)

GB/T 14522 – Artificial Weathering Test Method for Plastics, Coatings, and Rubber Materials used for Machinery Industrial Products – Fluorescent UV Lamps

## **Automotive**

Ford FLTM BI 104-02 - Condensing Water Vapor Test (QCT)

GM 4367M (General Motors) - Topcoat Materials - Exterior

GM 9125P (General Motors) - Laboratory Accelerated Exposure of Automotive Material

JIS D 0205 - Test Method of Weatherability for Automotive Parts (Japan)

NISSAN M0007 - Fluorescent UV/Condensation Test

RNES B-00107 (Renault, Nissan) - Test Method of Clearcoat Cracking (UVB)

**SAE J2020** - Accelerated Exposure of Automotive Exterior Materials Using a Fluorescent UV & Condensation Apparatus

# **Adhesives & Sealants**

**ASTM C1184** - Specification for Structural Silicone Sealants

ASTM C1442 - Standard Practice for Conducting Tests on Sealants Using Artificial Weathering Apparatus

**ASTM C1501** - Standard Test Method for Color Stability of Building Construction Sealants as Determined by Laboratory Accelerated Weathering Procedures

ASTM D904 - Standard Practice for Exposure of Adhesive Specimens to Artificial Light

ASTM D5215 - Standard Test Method for Instrumental Evaluation of Staining of Vinyl Flooring by Adhesives

UNE 104-281-88 - Accelerated Testing of Paints and Adhesives with Fluorescent UV Lamps

# Roofing

ANSI/RMA IPR-1 - Req. for Non-Reinforced Black EPDM Sheet for Roofing Membrane

ANSI/RMA IPR-2 - Req. for Fabric-Reinforced Black EPDM Sheet for Roofing Membrane

ANSI/RMA IPR-5 - Req. for Non-Reinforced Non-Black EPDM Sheet for Roofing Membrane

ANSI/RMA IPR-6 - Req. for Fabric-Reinforced Non-Black EPDM Sheet for Roofing Membrane

ASTM D3105 - List of Test Methods for Elastomeric and Plastomeric Roofing & Waterproofing

ASTM D4434 - Standard Specification for PVC Sheet Roofing

ASTM D4799 - Test Method for Accelerated Weathering of Bituminous Roofing Materials

ASTM D4811 - Standard Specification for Non-vulcanized Rubber Sheet Used as Roof Flashing

**ASTM D5019** - Standard Specification for Reinforced Non-Vulcanized Polymeric Sheet Used in Roofing Membrane

BS 903 Part A54 Annex A & D - Methods of Testing Vulcanized Rubber

**CGSB-37.54-M** - Canadian General Standards Board Spec. for PVC Roofing & Waterproofing Membrane **EN 534** - Corrugated Bitumen Sheets

**EN 1297** - Flexible sheets for waterproofing—Bitumen, plastic and rubber sheets for roof waterproofing Method of artificial ageing by long term exposure to the combination of UV radiation, elevated temperature and water

EOTA TR 010 - Exposure procedure for artificial weathering

# **UVC Testing**

**ASTM G224** - Standard Practice for Operating UVC Lamp Apparatus for Exposure of Materials

**IEC 60068-2-87** - Environmental testing – Part 2-87: Tests – UV-C exposure of materials and components to simulate ultraviolet germicidal Irradiation or other applications

**BIFMA HCF 8.1-2019** (Furniture) - Health Care Furniture Design Guidelines for Cleanability **IEC 60335-1 Annex T** (Appliances) - Household and similar electrical appliances - Safety -

Part 1: General requirements (UVC Radiation Effect on non-metallic materials)



# **Paints and Coatings**

**ABNT NBR 15.380** - Paints for buildings – Methods for performance evaluation of paints for non-industrial buildings - Resistance to UV irradiation/water vapor condensation, by accelerated test

ASTM D4585 - Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation (QCT)

ASTM D4587 - Standard Practice for Light/Water Exposure of Paint

**ASTM D5894** - Standard Practice for Cyclic Salt Fog/UV Exposure of Painted Metal, (Alternating Exposures in a Fog/Dry Cabinet and a UV/Condensation Cabinet)

EN 927-6 - Paints and Varnishes - Coating Materials and Coating Systems for Exterior Wood

GB/T 8013 - Anodic Oxide Coatings and Organic Polymer Coatings on Aluminum and its Alloys

GB/T 16585 - Rubber, Vulcanized Test Method of Resistance to Artificial Weathering - Fluorescent UV Lamps

ISO 15110 - Paints and varnishes - Artificial weathering including acidic deposition

**ISO 12944-9** - Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 9: Protective paint systems and laboratory performance test methods for offshore and related structures

ISO 16474-1 - Paints & Varnishes - Methods of Exposure to Laboratory Light Sources - Pt. 1: General Guidance

ISO 16474-3 - Paints & Varnishes - Methods of Exposure to Laboratory Light Sources - Pt. 3: Fluorescent UV Lamps

**ISO 6270-1** Paints and Varnishes — Determination of resistance to humidity - Part 1: Condensation (single-sided exposure) (QCT)

**ISO 6270-2** Paints & Varnishes — Determination of resistance to humidity - Part 2: Condensation (in-cabinet exposure with heated water reservoir) (QCT)

JIS K 5600-7-8 - Testing Methods for Paints

KS M5982 - Testing Method for Accelerated Weathering

### **Plastics**

ANSI A14.5 - Specification for Accelerated Weathering of Portable Reinforced Plastic Ladders

ANSI C57.12.28 - Specification for Accelerated Weathering of Padmounted Equipment Enclosure Integrity

ASTM D1248 - Standard Specification for Polyethylene Plastics Extrusion Materials for Wire and Cable

**ASTM D4329** - Standard Practice for Light/Water Exposure of Plastics

**ASTM D4674** - Test Method for Accelerated Testing for Color Stability of Plastics Exposed to Indoor Fluorescent Lighting and Window-Filtered Daylight

ASTM D5208 - Standard Practice for Exposure of Photodegradable Plastics

**ASTM D6662** - Standard Specification for Plastic Lumber Decking Boards

**DIN 53384** - Testing of plastics, Artificial Weathering and Exposure to Artificial Light

GB/T 16422.3 - Plastics - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV lamps

ISO 4892-1 - Plastics - Methods of exposure to laboratory light sources - Part 1: General Guidance

ISO 4892-3 - Plastics - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV Lamps

JIS K 7350-3 - Plastics - Methods of Exposure to Laboratory Light Sources - Part 3: Fluorescent UV Lamps

UNE 53-104 - Stability of Plastics Materials Exposed to Simulated Sunlight

### Other

AATCC TM 186 (Textiles) - Weather Resistance: UV Light and Moisture Exposure

**ASTM E3006** (Photovoltaics) - Standard Practice for Ultraviolet Conditioning of Photovoltaic Modules Using a Fluorescent Ultraviolet (UV) Lamp Apparatus

**ASTM F1945** (Printing Inks) - Lightfastness of Ink Jet Prints Exposed to Indoor Fluorescent Lighting **Colts Standard Test** (Dyes) – UV Dye Resistance to Fade - QUV

GSB AL 631 (Architectural) – International Quality Guidelines for the Coatings of Aluminum Building Components IEC 61215 (Photovoltaics) - Crystalline silicon terrestrial photovoltaic (PV) modules - Design qualification and

type approval ISO 21898 (Packaging) - Flexible Intermediate Bulk Containers (FIBCs) for Non-Dangerous Goods

- 1: Many national standards have been superseded by ISO or IEC standards, which are listed on this document.
- 2: This document is not fully comprehensive. If a standard is not listed here, it may still be met by the QUV/QCT.
- 3: Contact Q-Lab for more information about a specific test cycle.



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