PRODUCT SUMMARY LL-9009

# Accelerated Laboratory Testing Services

For those who are interested in accelerated weathering, light stability, and corrosion testing but are not yet ready to purchase QUV®, Q-SUN®, or Q-FOG® test equipment, we offer a full range of contract laboratory testing services in our fully-equipped laboratories in the US, Europe, and China.

Q-Lab weathering, light stability and corrosion tests are used for quality control, material certification, exterior durability studies, and predictions. Q-Lab can also act as an unbiased third party wherever third-party verification of test results is required.

## Why Test With Q-Lab?

- **ISO 17025 accredited (China coming soon!)**
- **Testing performed to ASTM, ISO, GB, BSI, DIN, JIS, SAE, AATCC and other standards**
- **Independent and unbiased results can be used to verify other testing**
- **Affordable and convenient for small or large tests**
- **Custom testing per your requirements**


**Our new lab in China joins Florida and Germany to offer solutions for all your testing needs.**

## Weathering & Lightfastness Testing

Q-Lab can provide fast and reliable weathering and lightfastness data using our large collection of QUV, QCT® and Q-SUN accelerated testers.

The QUV accelerated weathering tester reproduces the damage caused by sunlight, rain and dew. The QUV tester's fluorescent lamps simulate the critical short-wave UV and realistically reproduce the physical property damage caused by sunlight. Typical damage includes yellowing, cracking, blistering and loss of mechanical strength.

The QCT condensation tester uses 100% condensing humidity to simulate and accelerate damage caused by moisture outdoors. It replaces water immersion and ordinary (non-condensing) humidity tests.


**The QUV is the world's most widely used weathering tester.**

Q-SUN xenon test chambers are full-featured weathering, lightfastness and photostability testers, and provide the best match to full-spectrum sunlight, elevated temperatures, and outdoor moisture. All three models reproduce the damage caused by full-spectrum sunlight and rain. The Q-SUN Xe-2 tester uses a rotating rack design and has a large specimen capacity. The Q-SUN Xe-3 flat-array xenon arc tester allows for testing of large, 3D objects, while the Q-SUN Xe-1 table-top tester is convenient for unusual cycles or small tests.

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**The Q-FOG tester's large chamber capacity allows for three dimensional parts to be tested.**

## Corrosion Testing

Cyclic corrosion testing provides the best possible laboratory simulation of natural atmospheric corrosion. Research indicates that test results are similar to outdoors in resulting structure, morphology, and relative corrosion rates. In a Q-FOG cyclic corrosion tester, specimens are exposed to a series of different environments in a repetitive cycle that mimics the outdoors. Q-FOG cyclic corrosion chambers from Q-Lab can run traditional salt spray, Prohesion®, and most cyclic automotive tests.

## Standards/Test Methods

Q-Lab's wide variety of testing chambers allows us to perform a comprehensive range of common industry standards, such as: ASTM, ISO, BSI, DIN, JIS, SAE, AATCC, and many others. We can also perform custom exposures to your unique testing requirements.

Testing services from Q-Lab give you the flexibility to meet industry standards, or to conduct your own proprietary testing program, at a very affordable cost.

*See Q-Lab.com for a more comprehensive list.

## Partial List of Test Methods*

- **Q-SUN Xenon Testing**: ISO 4892-2, ASTM G155, ASTM D7869, SAE J2412, SAE J2527, SAE J2412, PV 1306, PV 3929, PV 3930, ISO 16474-2, ISO 105 B02, AATCC TM 16
- **QUV Weathering Testing**: ISO 4892-3, ASTM G154, ISO 16474-3, EN 927-6, SAE J2020, ASTM C1442, ASTM D4329, ASTM D4674
- **Q-FOG Corrosion Testing**: ASTM B117, ISO 9227, ASTM G85, GMW 14872, Renault ECC1, SAE J2334, Volvo ACT-I, Volvo ACT-II

**Visual inspections can be performed at any testing services location.**

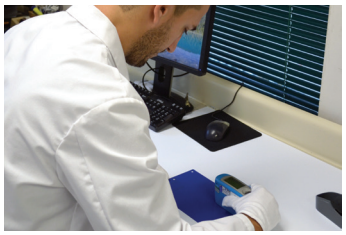
## Evaluation and Reporting

It is important to quantify the results of any exposure testing program. Change in some properties can be measured with specialized optical measurement instruments or mechanical testing. Other changes like cracking, peeling, chalking, blistering, or rusting can be evaluated visually and rated according to standard scales.

The staff at Q-Lab testing facilities are experts on evaluation techniques and reporting scales. Their visual evaluation reports detail all defects observed and provide accurate, repeatable results.

Mechanical tests on physical properties are necessary for many products and materials. These tests include: impact, pencil hardness, tape adhesion, tape chalk, bend, abrasion, tensile testing, load at break, elongation, shear and peel adhesion, and gravelometer chip impact testing.

A complete test program often includes other special services or handling such as washing, polishing, scribing and specimen weighing, which Q-Lab can provide. Q-Lab can also record and document weathering and lightfastness changes through digital photography.



**Gloss measurements being taken on a specimen.**

Evaluations and measurements can be scheduled on any time-frame. Reports are used to chart the time/degradation progress in both hard copy and electronic data formats. Customers can access their contract testing data from any Q-Lab test services location in real-time on Q-Lab's customer portal, Q-Portal, www.Q-Portal.net.

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# Q-Lab.com/support

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