



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 and Europe.

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.

Advantages of Testing with Q-Lab

- Full range of weathering, lightfastness and corrosion testing capabilities
- ISO 17025 accredited
- Affordable and convenient for small or large tests
- Testing performed to ASTM, ISO, BSI, DIN, JIS, SAE, AATCC or other standards; custom testing also available
- Independent and unbiased results can be used to verify other testing



Our new ISO 17025 accredited lab in Germany joins Q-Lab Florida to offer solutions for all your testing needs.

Weathering & Lightfastness Testing



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

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.

Q-SUN xenon test chambers are full-featured weathering, lightfastness and photostability testers, and provide the best match to full spectrum sunlight. All three models reproduce the damage caused by full-spectrum sunlight and rain. The new Q-SUN Xe-2 tester uses a rotating rack design and has a large specimen capacity. The versatile 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 very convenient for unusual cycles or small tests.



Q-SUN Xe-1 and Xe-3 test chambers in the lab.



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

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 www.q-lab.com for a more comprehensive list.



Visual inspections can be performed at Q-Lab Florida and Q-Lab Germany.

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.

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 Florida, Arizona and Germany in real-time at Q-Lab's customer portal, www.myweathertest.com.

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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.

Partial List of Test Methods*

- **Q-SUN Xenon Testing:**
AATCC TM 16, TM 169, ASTM D2565, D7356, G155, ISO 105 B02, 11341, 4892-2, M&S C9 & C9A, PV 1306, 3929, 3930, SAE J2412, J2527
- **QUV Weathering Testing:**
AATCC TM 186, ASTM D4329, D4587, D4674, D6662, G154, ISO 11507, 4892-3, SAE J2020
- **Q-FOG Corrosion Testing:**
ASTM B117, D5894, G85, GM 4298, ISO 9227

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.

Our staff members at our facilities in Florida, Arizona and Germany are experts on evaluation techniques and reporting scales. Their visual evaluation reports detail all defects observed and provide accurate, repeatable results.



Gloss measurements being taken on a series of substrates.