

Resistance to sunlight, UV and moisture is a fundamental measure for testing roofing material durability.

Fontana uses four different types of testing programs to arrive at the Recommended Maximum Exposure times. Our recommendations are to assist in the current method of phase construction.

Fontana's Vulca Seal underlayments are not designed to be left permanently exposed to the weather/elements. Membranes should be covered with the final product as soon as possible to prevent the initial stage of degradation.

## **1. Q-TRAC SUNLIGHT CONCENTRATOR TESTING**



Q-TRAC natural sunlight concentrator testing at Q-Lab Arizona

### **Super Fast Results from Natural Sunlight**

Q-TRAC natural sunlight concentrator testing gives super fast results like accelerated laboratory testers, but instead uses actual sunlight as the light source. It is exceptionally useful for highly durable materials with exceptionally long lifetime expectations.

The Q-TRAC system uses an array of 10 mirrors to reflect and concentrate full spectrum sunlight onto the test specimens. Furthermore the Q-TRAC system automatically tracks the sun throughout the day in both azimuth (horizontally) and elevation (vertically). The combination of mirrors and tracking maximizes the amount of exposure that your test specimen receives.

The Q-TRAC outdoor tester also has a water spray system that can be set to perform various cycles to simulate Florida weathering or create thermal shock. Additionally, specimens are oriented facing up during night-time wetting to give increased time of wetness and enhanced realism, compared to original EMMAQUA® natural sunlight concentrator testing. Q-Lab also now offers temperature-controlled Q-TRAC testing for more heat-sensitive specimens - contact us for more details.

## **2. QUV ACCELERATED WEATHERING TESTER**

The QUV accelerated weathering tester reproduces the damage caused by sunlight, rain and dew. In a few days or weeks, the QUV UV tester can reproduce the damage that occurs over months or years outdoors.

To simulate outdoor weathering, the QUV accelerated tester exposes materials to alternating cycles of UV light and moisture at controlled, elevated temperatures. It simulates the effects of sunlight using special fluorescent UV lamps. It simulates dew and rain with condensing humidity and/or water spray.

The QUV accelerated weathering tester is the simplest, most reliable, and easiest to use weathering tester available. With thousands of testers in use worldwide, it is the world's most widely used weathering tester.

### 3. Q-RACK OUTDOOR EXPOSURE RACKS



Q-RACK outdoor exposure racks are the same aluminum racks that are used at Q-Lab Florida and Q-Lab Arizona to perform natural outdoor exposure tests. Now you can buy these professional quality racks to perform exposures at your own site.

The durable Q-RACK design has been proven over decades of harsh subtropical and desert exposures. The racks are versatile, dependable, and affordable, and come in kit form for easy assembly.

Q-RACK kits, accessories and non-standard mounting systems are available for different applications and testing requirements. They meet ISO, ASTM, SAE and other international standards for outdoor testing. The Q-RACK frame may be positioned at 0°, 5°, 45° or 90°.

### 4. REAL LIFE PONDING WATER

Real life ponding test measures various underlayment's permeability and absorption rate. This test indicates how long these products can perform under standing water conditions before the membrane begins to sweat, bleed then drip through the sheet. Our 12-18" test material is folded & rolled into the shape of a cone, and then water is added until failure.

<i>Fontana Underlayment</i>	<i>Maximum Recommended Exposure Months</i>	<i>Ponding Water Weeks</i>
15# ASTM	1	2
2 Ply 15# ASTM	2	5
30# ASTM	3	3
2 Ply 30# ASTM	6	7
G40 Modified Fiberglass Base	5	46
40# Organic Base Underlayment	6	100+



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