

Will Your Product Last Outdoors?

Florida Weathering Exposures



45° Standard Direct Exposure

Q-Lab Weathering Research Service

Q-Lab Weathering Research Service provides internationally recognized outdoor weathering at benchmark locations in Florida and Arizona. Natural outdoor exposures give the most realistic prediction of product performance and can help you avoid unexpected failures.

Experienced and reliable

Q-Lab provides the highest quality contract weathering testing services. Our first natural weathering site opened in 1959.

Instant credibility

When Q-Lab does your testing, the results have instant credibility with your customers and colleagues. Q-Lab conducts all exposure tests and evaluations in accordance with appropriate test methods from ASTM, ISO, BSI, DIN, JIS, SAE, and other recognized organizations.

Low cost

Q-Lab's state-of-the-art exposure and material evaluation services are available at a surprisingly affordable price.

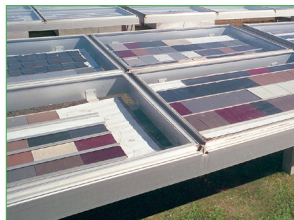
Q-Lab Weathering Research Service
305-245-5600 www.q-lab.com



Black Box Exposure

Florida Subtropical Weathering

- high-intensity sunlight
- high annual UV
- high year-round temperatures
- abundant rainfall
- very high humidity



5° Under Glass Exposure

Excellent Climate For Testing:

- sunlight UV stability
- moisture sensitivity
- mildew resistance
- erosion & thermal shock
- corrosion



Special Parts Mounting, Direct Exposure

Florida Benchmark Weathering

- internationally recognized location for material weatherability
- natural exposures are the most realistic and provide a benchmark for accelerated weathering data

The Most Trusted Name in Weathering



Why Florida?



Because no test program would be complete without it.

Why is Florida the world's benchmark for outdoor exposure tests? Location is everything. Over 75 years ago it was discovered that products in Florida deteriorate much faster than in other locations.

As it turns out, Florida has the perfect year-round combination of abundant sunlight, warm temperatures and moisture – creating an environment that is highly conducive to increased product degradation. Interestingly, the weathering conditions that are inherent to southern Florida are, in relative proportion, consistent with many other regions of the world. Simply put, Florida has the same weather as most other locations, just a lot more of it.

The subtropical climate of southern Florida is ideal for weathering testing because it offers an exposure environment typical of both tropical and temperate climates. As shown below, the solar data during the summer months in Miami is quite similar to that of northern temperate regions. However, in the winter the difference is dramatic. The key point is that it is the same sun – just more of it and for a longer duration. The same is true for temperature, rainfall, dew and humidity.

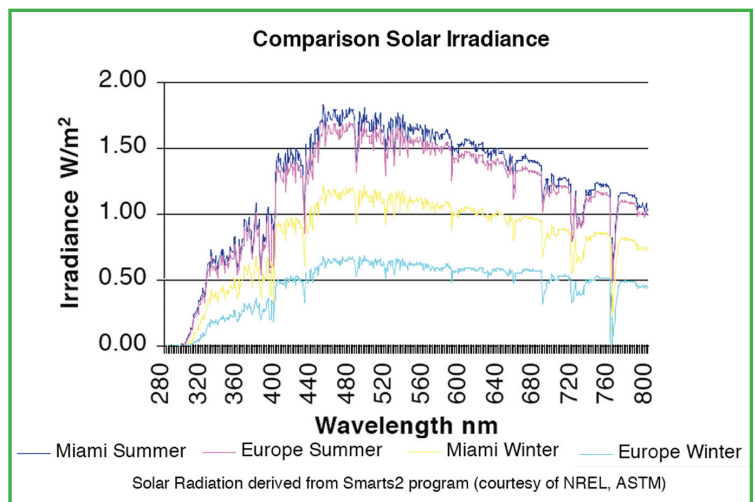
The geographical location and characteristics of the southern tip of Florida's peninsula prevent any one major force of weather from overwhelming any of the others. A good example is high rainfall. A location with too much rainfall would mean extra clouds filtering sunlight levels, thus causing a decrease in photodegradation and an increase of mold and mildew growth. Southern Florida's unique year-round balance of sunlight, heat and moisture creates an ideal environment for repeatable and realistic outdoor exposure testing.

Exposures in the Miami area not only are realistic, they are accelerated. One year of Florida sunshine can equate to several years of weathering in more temperate climates. There is no set rate for this acceleration because there are many variables that will affect the outcome, but it is generally accepted that Florida testing accurately predicts what happens in temperate regions.

A typical, standard test in Florida will incorporate exposure at an angle that is matched as closely as possible to the end-use positioning of the material. Regularly scheduled evaluations provide data about the progress of the test material and allow for more reliable predictions. Because the test is conducted outdoors, the results are real-world. This provides a level of trust in Florida exposures that is not always possible with laboratory testing. In addition, outdoor testing provides results that are sometimes impossible to duplicate in the lab; for example, biodeterioration is extremely difficult to simulate under laboratory conditions.

No matter what other types of tests are performed, it is universally accepted as the best practice to incorporate at least one outdoor exposure in Florida in your weathering program.

For more information on how to build a comprehensive weathering test program that includes Florida exposures, call a Q-Lab technical expert today.



Southern Florida exposures are not only realistic, they are accelerated. One year of Florida sunshine can equate to several years of weathering elsewhere.