



Quick Links



Drawing on decades of weathering leadership and expertise, the Atlas Consulting Group provides in-depth consulting services that assist you in developing and applying the best weathering test methods and strategies for your products. **Atlas Weathering Consulting Insights** offers interesting and valuable information on a variety of topics relevant to long-term durability testing.

Need to Know How Your Product Will Hold Up?

Fortune Tellers May Have the Answer, but Weatherability Specialists are a Safer Bet

Predicting how your product will perform outdoors and how long it will last doesn't require gazing into a crystal ball, but it can certainly affect your fortune! Unexpected or premature product failure from the damaging effects of exposure to weather and climate is a very real but often poorly understood risk for most companies.



Most likely you have seen products degrade from weather exposure: a failing roof, paint peeling on cars, faded traffic signs or cracked and yellowed plastic – and you may worry that the same could happen to your product. Maybe you currently perform accelerated testing but you lack confidence in the results or don't understand them for that matter. Don't be distressed, you are not alone.

Those who have experience in material weather degradation know that, in practice, it is not so easy to design the right weathering test. Is an "off the shelf" test right for your specific product or materials and design? Does it provide the right weather and climate stresses? How will you measure and evaluate the results? How long will it take . . . and how much will it cost? Do you have the available resources and expertise to implement it? How do you get results you can rely on with a test you are able to afford in both time and money?

Unfortunately, product weather durability is not taught as a specialized topic in reliability engineering, chemistry or material science programs. Reliable weathering testing of materials and products is not supernatural, rather it is a science with established first principles. Oftentimes, the knowledge you possess has been learned "on the job" by trial and error as a result of product failure.

On the surface, laboratory accelerated or outdoor exposure weatherability testing does not appear to be complex. You simply look at your product, think about what could happen to it in its end-use environment and select a testing protocol, typically a published standard. Initiate the weathering test and perform periodic evaluations of the specimens, continuing until your product eventually fails.

When failures occur or testing is complete, important questions arise: What does the data reveal and what can be learned from it? How can this data be used to improve product durability or reliability? This is often where questions about the predictive value of the weathering tests begin . . . do you trust the test results? This brings us back to fortunetelling,

The Atlas Consulting Group is routinely entrusted to design and implement appropriate test methods or programs to meet specific customer technical and business needs. Our team is experienced not only in proper experimental design, but also in the evaluation and interpretation of weathering test data.

We can help you answer the tough questions:

- How well do laboratory results correlate to field data or outdoor test exposures?
- What do laboratory results reveal about material durability when there is no field data, such as in new product development?
- What can be learned about failure mechanisms and mitigation strategies?
- How does the product perform in specific climates?
- And finally, how long will the product last?

Validation and correlation of data are essential in the design and implementation of weathering testing. The Atlas Consulting Group is proficient in creating test programs that maximize the value, reliability and predictability of your weathering testing. No fortune teller is necessary, just a proven and reliable weathering team of experts. For more information please visit us at www.atlas-mts.com or contact us at atlas.info@ametek.com.

