News and Updates

Welcome to the third edition of **The Observer**. Here we are into the second half of 2025 already, and things are heating up both literally and figuratively. Every year just seemed to be hotter, but now we can prove that it really has been getting hotter. I do think that as I get older, I am less able to stand the outside heat, but the temperatures during the day in the summer here in South Florida are just so much hotter than they used to be. I always had the greatest respect for our outdoor field technicians that had to spend all day outside in the heat (and humidity, and bugs). I was one of them of course when I started out back in 1982, and I can remember it vividly. I was never happier than when I got a promotion and an indoors office.

What of the test specimens though, does this warming of our climate mean anything for the way those materials are affected? Well, a 1.5 °C rise in air temperatures probably won't make too much difference, but it is other changes in our climate that might make a more significant impact. Changes in our atmosphere will lead to a different rainfall pattern, more or less condensation, and more or less sunlight. These can change the overall effect in ways we won't necessarily be able to predict. Will South Florida still be a good predictor of other temperate regions, and will the acceleration rate stay the same? And how much further will these changes in our climate go?

Repeat Tests

"THE BEST PRODUCTS ARE THOSE WHICH ARE TESTED REPEATADLY. MINOR CHANGES IN THE INGREDIENTS CAN AFFECT THE PERFORMANCE. ECONOMIC PRESSURES WILL FORCE DEVIATIONS IN THE SUPPLY CHAIN SUCH AS CHEAPER MATERIALS, NEW SUPPLIERS, OR SMALLER DOSES. REPEAT YOUR DURABILITY TESTING EVERY TIME ANYTHING CHANGES.

Personally I believe South Florida will always be a good predictor, since these climate changes are worldwide. But we may see differences in correlation and acceleration. These will be both for comparison to other geographic locations and also to weathering tests in the laboratory. We must continue to re-evaluate the settings for standard tests and make sure they are relevant for the new climates. Accelerated tests can be finicky at best, and small changes to cycles and settings can make a difference in the success rate. The same would apply if the outdoor test conditions changed. Here is just one more variable we can add to weathering testing.

<u>Obsolete Equipment in Standards</u>

When a standard is written around a specific piece of equipment, what should happen to that standard when the equipment is no longer available? At least initially, nothing should change since older equipment will still be around and being used. As long as they are, a standard is needed to ensure they are being used the same way. The standard should be revised and updated to make sure that calibrations are still valid, supplies are still available, and references are up to date. Eventually though, the standard can be withdrawn. This allows it to be used still, keeping it in a frozen state.

Another example though is one where one standard has two devices that meet the standard. What if just one of those devices becomes obsolete? What is the process for keeping the standard updated for the current technology, but still allow the older equipment if there may be labs around that still run it? I have just encountered this in ASTM D4674 where two of the four methods use equipment not seen since the last century. In ASTM Committee D20.50 we decided to move the two outdated methods to an Appendix. In another 5 years we will delete the Appendix, leaving only the two current methods. If anyone using this standard has an issue, they will basically have 5 years to come forward and make the case to keep the two methods.

Technical Information

One question that I am asked frequently is whether there is any benefit to the "double summer" exposure. This is where your specimens will spend 6 months somewhere in the northern hemisphere and then 6 months in the southern hemisphere. The specimens will spend an entire year in the summer months. At first read, this sounds like a tremendous idea, since the summer months are the most destructive. This double summer for example could be 2x more severe than Florida perhaps. If you are thinking about this there are several issues to consider first.

1. The time to move the specimens between sites is "down time". Is the loss of this non-exposure time worth it?
2. Damage during shipping can ruin the whole test.
3. Are the opposite test sites the same from a weathering climate effect? Where is Florida in the S. Hemisphere?
4. The results are not standardized and cannot be directly related to any end use environment.

My advice would be to stick to one site all year, north or south and maximize the actual exposure time. I have not seen any results yet that prove any double summer advantage.

CALENDAR

ASTM October Committee Week
October 5 to 10, 2025
Atlanta, GA

SAE Lighting Committee
September 20 to October 3, 2025
San Diego, CA

ASTM D20, G01
November 9 to 11, 2025
Atlanta, GA

AATCC Research Committees
November 11, 2025
Raleigh, NC

Standards Information

There will be a new draft of SAE J576 going to ballot soon. We have a meeting at the end of September and we should be discussing the results of that ballot at the meeting. Great progress has been made in the last 6 months and this standard will have some new features added and some old features restored.

Blog

Don't forget to check out our Blog section on the website. It is listed as **Latest Updates**, on the web page.

Benchmark is the name of our website, and is derived from the basis that "Florida outdoor weathering is the *Benchmark* by which all other weathering tests are compared." You can find BENCHMARK at either of these URLs bestweathertest.com or bestcorrosiontest.com