Polymer Services Group
Innovation, Application, Evaluation

Are Tests Standardized --- or Not?

Real differences can exist when comparing most "data sheet" properties of different materials. Standardized tests work fine for establishing comparative values for the same material, but can be very misleading when comparing different materials --- mainly because the "standardized" tests for different materials **may not be the same**.

There are a lot of good reasons, and some not-so-good ones, for the compromises that are made in the development of a particular test standard. Most compromises are technically based, but skewed by the particular biases prevalent in the industry, or the specific requirements of a particular intended application.

One standard does not necessarily satisfy everyone's particular needs. It certainly would be nice to have one global standard for each specific property, so that all materials could be compared on the same basis. However, if that standard doesn't represent the best assessment of certain materials for some applications, the representatives of those materials or applications would inevitably develop their own "standard". Although this makes the standards process very complicated, it's important that those who are making a determination of the value of a material or product are doing so based on the best measurement of those properties for their needs --- and, that they are all doing it in the same way.

If someone wants to make an assessment of different materials for a specific application, **do not just compare the published "data-sheet" values** because they may not be comparable. Understand your application and the reasons for the properties you intend to evaluate. Run your own "standardized" test(s) so you are comparing the candidates on the same basis. Examine all the relevant data that is generated in the test --- not just one particular number. Finally, make the decision after assessing all of the pertinent information.

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