

Letter to the Editor

Limitations of our Existing Standards

Dear Doug:

Thank you for your editorial titled "Some Limitations of Our Existing Standards." Many of the problems you raise are problems that I face daily. There are many tests that have been de-facto standards in industry for many years without consideration by ASTM. For example: the test for concrete sealers described in NCHRP 244 is used by almost every coating manufacturer. The tests were developed as part of an independent, government funded research program. Why have these tests not been adopted by ASTM? Who is selecting the standards? There are many AASHTO tests that have not been adopted by ASTM. Maybe a review of other test standard agencies is appropriate? With regard to restrained shrinkage, a test for the National Cooperative Highway Research Program (NCHRP) was recently re-developed. The test has been proposed for adoption by AASHTO, unless ASTM wishes to beat them to it.

To determine set times, concrete mixtures can be tested according to ASTM C 403, Standard Test Method for Time of Setting of Concrete Mixtures by Penetration Resistance. We have recently used this test to indicate potential problems for concretes containing large quantities of water-reducing admixtures. The time to set is an extremely important issue, not only in cast-in-place but also in precast concrete production as it determines when curing procedures should commence. We agree, the time of set results should often be reported.

I am greatly encouraged by your comments regarding the AASHTO T277/ASTM C 1202 test and the AASHTO T259 tests to determine chloride permeability. Adsorption, diffusion, permeation, resistivity, and the other transport phenomena are not only poorly addressed by ASTM but are also poorly addressed in the literature. As you describe, the current standardized tests result in poor quality data that is almost useless for service-life prediction.

So, what is the solution? Researchers, practitioners, and standards committees need better communication. I often use modified

ASTM tests and never get around to telling the committee why I did not run the test exactly as prescribed. Possibly, *Cement, Concrete, and Aggregates* could be a clearing house for such comments?

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Response from Editor

Dear David:

In your letter, you ask, "What is the solution?" I would be very happy for you and others to use *Cement, Concrete, and Aggregates* as a forum to explain the need for modifications to ASTM tests or to propose new ones. However, I would only suggest that this be done, if in addition, such perceived shortcomings of standards and potential modifications, along with substantiating data also be communicated directly to the appropriate committee, via myself as the new Chair of Committee C-9 or to Scott Orthey, the ASTM staff manager. The most expedient means, of course, is to get involved with the C-9 committee by joining and actively participating as do Bill Hime and others. My experience has been that unless the person proposing a change or a new standard is present to make his or her case and to follow it through, it is a difficult process. But this is natural with a voluntary consensus organization where your priorities or concerns are not the same as those of others who are taking the time to get involved. For example, I'm not aware that anyone from WJE has requested that ASTM adopt the NCHRP 244 procedures for concrete sealers, but I am not a member of that subcommittee.

R. Doug Hooton
Editor-in-Chief