

National Concrete Consortium (NCC) Overview

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Curing topics

- Curing
 - The consensus of the research is the Poly-Alpha-Methylstyrene (PAMS) is the best and most effective curing compound available for the widest range of conditions.
- Internal Curing
 - It was suggested that states adopt internal curing specifications for Accelerated Patching and Bridge Decks.
 - Suggested that the best way to achieve this is to replace about half of the fine aggregate with light weight fine aggregate.
 - State needs to address fine aggregate availability and cost issues.



FHWA

- Sustainability
 - [There is a new reference document at:](#)
 - http://www.fhwa.dot.gov/pavement/sustainability/ref_doc.cfm
- Drive Toward Performance Specifications
 - Specifying things like permeability, and shrinkage properties in mix design.
 - Peter Tyler of NCC performing research on possible new tests that will improve testing accuracy.
 - Looking at "Formation Factor" for a more accurate indication of resistivity. (Permeability)
 - Super Air Meter for air content and spacing factor control



FHWA

- SHRP 2 – Project R21 - New Composite Pavement Systems – No PennDOT projects were available.
- SHRP2 – Project R05 - PA submitted for Precast Concrete Panels in District 6 on SR 202 Markley Street. The District will receive a minimum of \$75K, or \$300K if the state is selected as a lead adopter.
- Round 7 will be advertised in the next 6 months.



Cement and SCMs

- Limestone addition cements are working well. They help SCMs enhance strength, permeability, and aggregate adhesion.
- SCMs
 - Fly Ash supply is not a problem in the United States as a whole but regional issues are a possibility. (PA has a regional issue.)
 - SCMs have so many benefits (permeability, ASR mitigation, long term strength growth) that the recommendation is to require minimum amounts in concrete pavements.



Dowel Bar Task Force

- The NCC has started a Dowel Bar Task force that will recommend a better more comprehensive test for dowel bar acceptance and durability.
 - Mark Snyder is the principle researcher



Discussion



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