

Mix Design and Analysis Track Pooled Fund TAC Meeting TPF 5(205)

National Concrete Pavement
Technology Center



Pooled Fund 5(205)

- Participating States (8)
 - IA, KS, MI, MO, NY, OK, TX, WI
- Contract Status
 - Pooled fund contract signed with IA DOT
 - FHWA contract signed

Pooled Fund Tasks

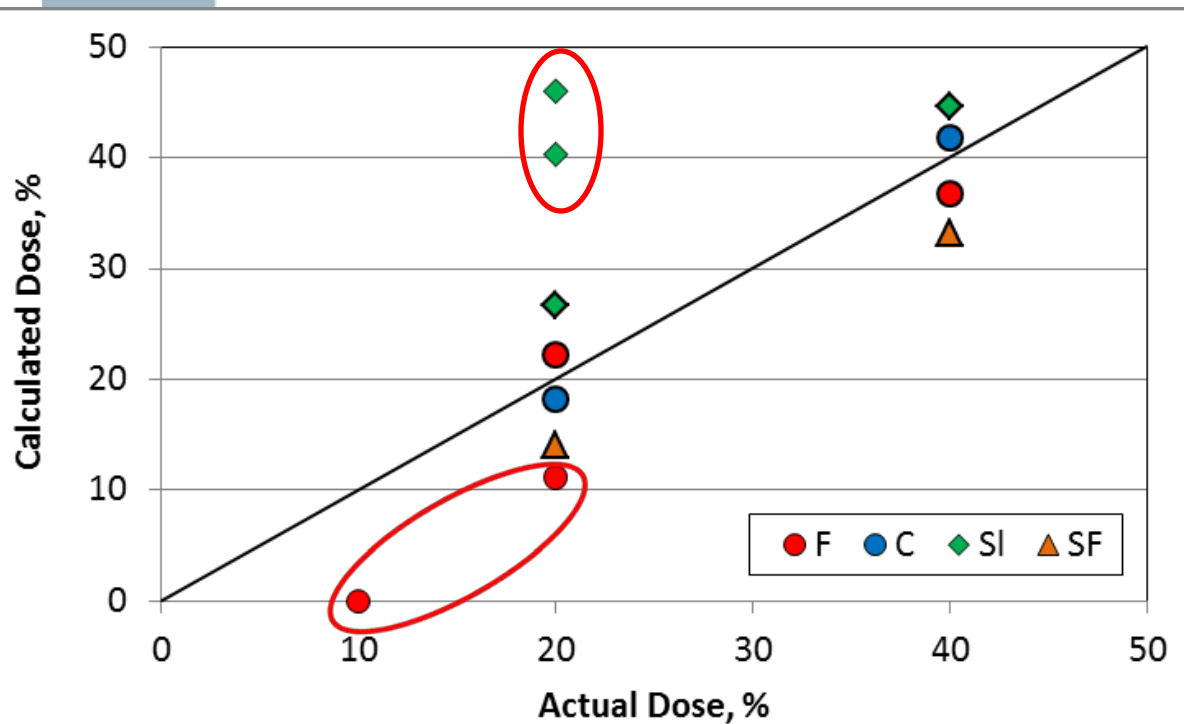
- Tests
 - Portable XRF
 - Protocol for integral waterproofers
- Models
 - What air do we really need
 - Mix proportioning
- Specifications
 - Guide specification

FHWA Contract Tasks

- Models
 - What air do we really need
 - Mix proportioning
 - Standard data collection
- Specifications
 - Guide specification
 - Checksheets
- Communications
 - Tech briefs
 - Papers and presentations

XRF

- Machine on loan from manufacturer
- Data being analyzed



Integral Waterproofers

- 5 products received
 - KIM
 - Xypex
 - BASF
 - Hycrete

 - Sinak
- Still looking for
 - Acrylic
- Mixing starts this week

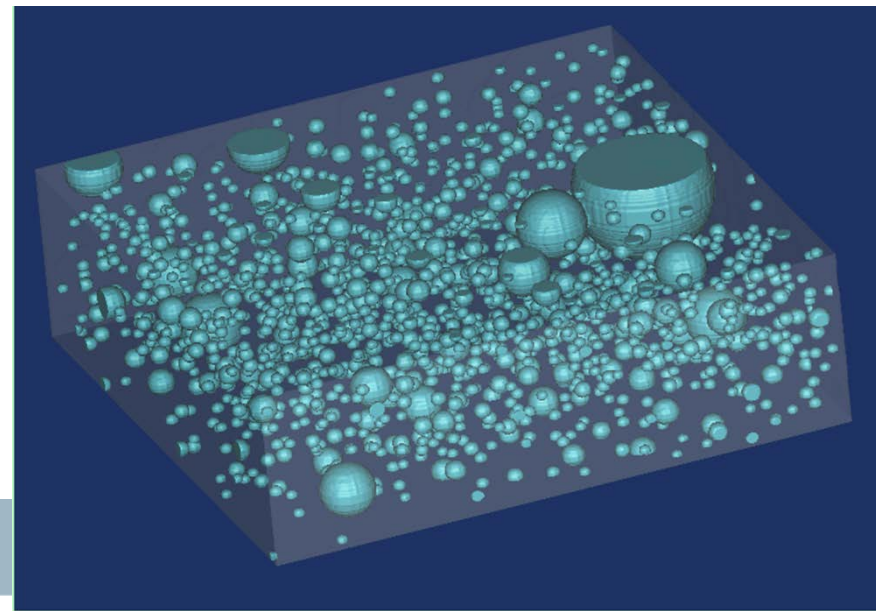
Integral Waterproofers

- Test plan
 - Fixed w/cm, air
 - Moist cure
 - Test
 - Fresh properties
 - Strength
 - Sorption
 - RCP
 - Gas permeability
 - Boiled water
 - Shrinkage
 - Wenner



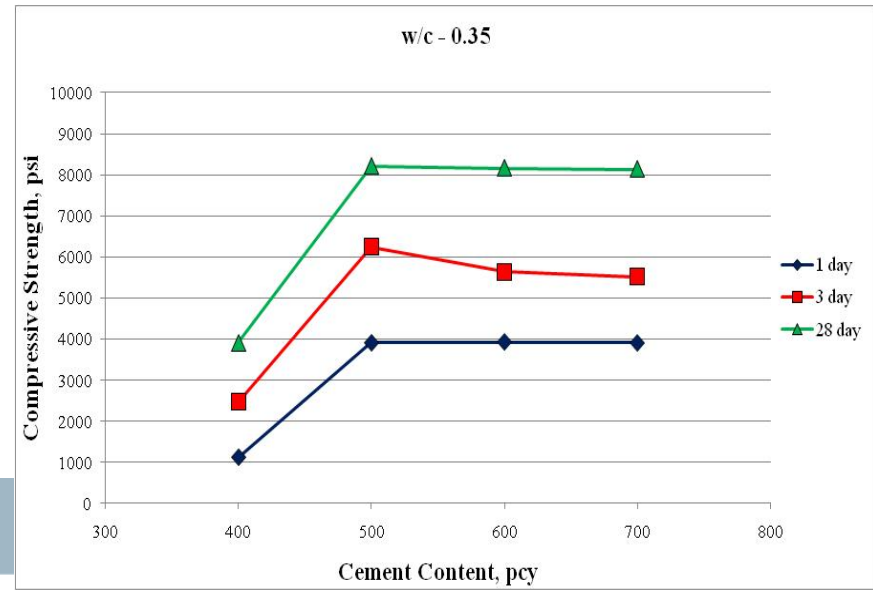
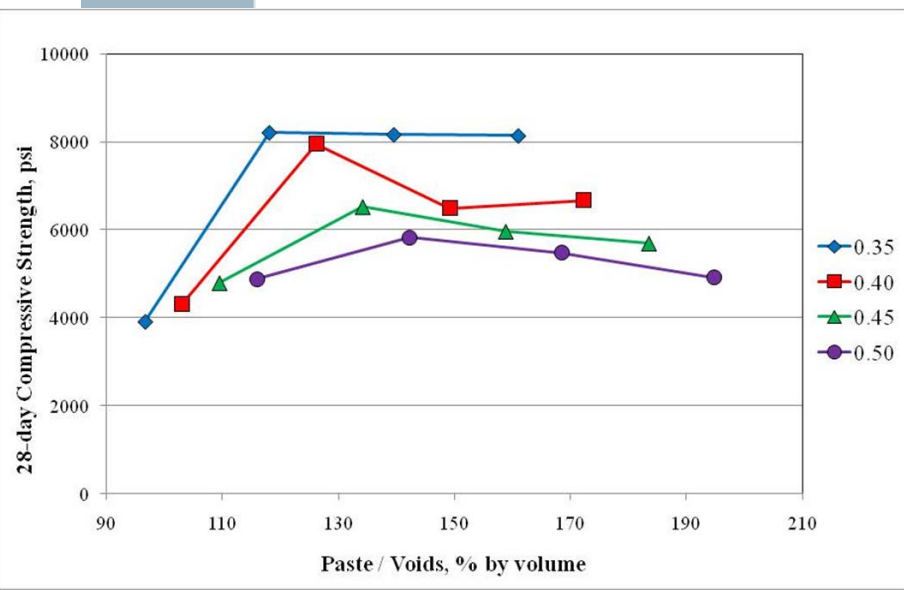
Air Void System

- Oklahoma State University under contract
 - Air void distributions using μ CT
 - Modified test methods



Mix Proportioning

- Choose aggregate system
- Choose paste quality
 - Choose SCM type and dose
 - Choose air content
 - Choose w/cm
- Choose paste quantity




Guide Specification With Commentary

- Contracts in place with Fugro and Fick
- Draft to be ready for review in summer

An **IPRF** Research Report
Innovative Pavement Research Foundation
Airport Concrete Pavement Technology Program
Report IPRF-01-G-002-04-1

**A Proposed Specification for
Construction of Concrete
Airfield Pavement**




2008 07 01

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5420 Old Orchard Road
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July 2007

An **IPRF** Research Report
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**Supplemental Report for
Proposed Specification for
Construction of Concrete
Airfield Pavement**



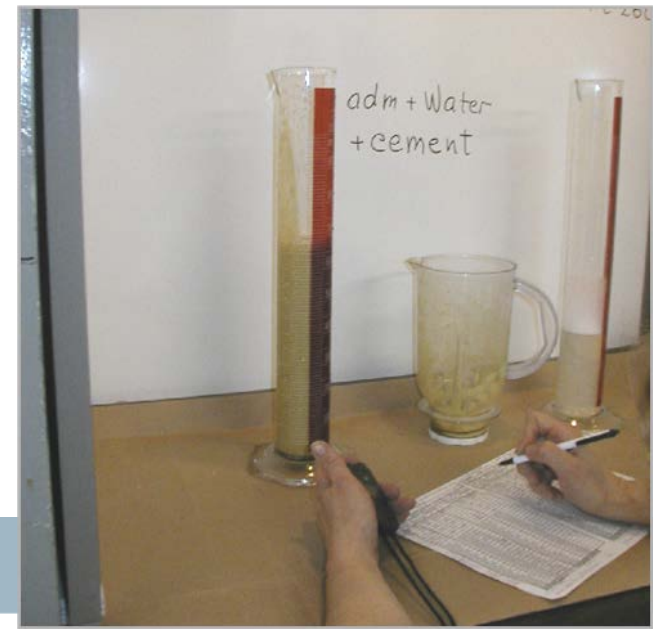
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Foam Drainage

- Working with WI DOT & APTECH to collect
 - Field materials
 - Records of AVS before and after paving
- To correlate drainage test with field performance of admixtures



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