Coatings for Structural Concrete

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MWBPP Meeting
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Why Paint Structural Concrete?
Deterioration of Beam Ends
Deterioration of Pier Caps and Columns
Leaking Joints
Increasing Use of Deicing Salts by KYTC

KYTC Statewide Use of Deicing Chemical Since FY 2005
KTC Research on Bridge Concrete Deterioration
Chloride Measurements of Substructure Elements
Experimental Maintenance Painting of Concrete
Concrete Coatings Lab Tests

Chloride Ion Penetration

Weatherability
Chloride Ion Penetration Measurements

% Chloride by Wgt. Concrete for Various Coatings at 1/2” and 1” Depths in Salt Ponding Blocks
Weatherability Adhesion Measurements

Adhesion Test – Tensile Stress for Pre-Exposure and 2000 Hours of UV/Condensation Testing
Field Test Patch Application
Field Test Measurements
In Summary

• Appropriate coatings can protect structural concrete
• Laboratory and field tests identify the most suitable coatings
• AASHTO NTPEP is will be sponsoring testing to evaluate concrete coatings
Thank You!

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