

Polymer Modified Emulsions Technology Deployment Study



Purpose

Currently, no national standards to help guide pavement practitioners on the use of Polymer Modified Emulsions (PME).

Background

- ✓ Sponsored by FHWA Central Federal Lands Highway Division and FHWA Office of Asset Management
- ✓ NCPP contracted to develop best practice guide and model specifications
- ✓ NCPP actively working with a consortium of industry experts

Issues

- ✓ Emulsion physical & chemical properties do not always correlate with performance
- ✓ High distillation temperatures can alter physical properties of asphalt emulsion residue, including polymer structure
- ✓ New testing methods may delay shipping and application of emulsions
- ✓ Superpave PG specs do not address failure mechanisms of emulsion applications

Industry Experts

- ✓ GHK, Inc.
Dr. Gayle King & Helen King
- ✓ BASF Corporation
Dr. Koichi Takamura & Chris Lubbers
- ✓ PRI Asphalt Technologies
Dr. Laurand Lewandowski
- ✓ Colorado State University
Dr. Scott Schuler

Goal #1

- ✓ Develop performance-related specifications for polymer modified:
 - Chip Seals
 - Slurry Systems
(includes Microsurfacing)
 - Cape Seals

Goal #2

- ✓ Create a framework for performance-based asphalt emulsion specifications that address problematic issues.
 - New Residue Recovery Method
 - New Tests to Measure Polymer Modification
 - Longer Time Necessary for Testing
 - Specifications that Reflect Actual Field Performance

On-line PME Survey

- ✓ Consisted of six (6) sections which covered specific technical areas related to the use of polymer modifiers in asphalt emulsions.
1. Approved Supplier Certification Program
 2. Residue Recovery Methods
 3. Emulsion Specification Tests
 4. Emulsion Residue Specifications
 5. Application Specific Aggregate Tests and Performance Specs.
 6. Construction

Industry Survey Questionnaire for FHWA FLH Polymer Modified Emulsions (PME) Technology Deployment Study

"Modifiers for Asphalt Emulsions Synthesis of Best Practices"

Create a New Survey Response by Clicking "Add New Survey" Below

Add New Survey

✓ New CEN standards for emulsions

Otherwise, if you want to edit an existing survey, enter your Organization Edit Code below and click the "Edit Survey Responses" Button

Contact the NCPP at john1545@egr.msu.edu if you've lost your edit code.

PLEASE DO NOT ADD A NEW SURVEY IF YOU'VE ALREADY COMPLETED ONE.
PLEASE USE YOUR EDIT CODE.

Edit Survey Responses

Organization Edit Code:

Edit Survey Responses

Reset

PME Study Conclusions

- ✓ Interim Report Complete Fall 2008
- ✓ Conclusions will be On-line at NCPP website.
www.pavementpreservation.org

QUESTIONS ?