

AASHTO Flexible Pavement Preservation Standards and Practices

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AASHTO MAINTENANCE COMMITTEE

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Standards and Practices

- ▶ **Asphalt Emulsion Standards**
- ▶ **Asphalt Emulsion Treatments**
- ▶ **Pavement Preservation Treatment Materials Standards**
- ▶ **Pavement Preservation Treatment Design Practices**

Asphalt Emulsion Standards

- ▶ Emulsified Asphalt
 - ▶ Cationic Emulsified Asphalt
 - ▶ Polymer-Modified Cationic Emulsified Asphalt
- ▶ M 140-16
 - ▶ M 208-16
 - ▶ M 316-16

Asphalt Emulsion Treatments

Treatments

Chip Seal

Cold IN-Place Recycling

Fog Seal

Micro surfacing

Sand Seal

Scrub Seal

Slurry Seal

Materials

MP 27-16

MP 31-17

MP 33-17

MP 28-16

MP 34-18

MP 32-17

Design Practices

PP 82-16

PP 86-17

PP 88-17

PP 83-16

PP 90-18

PP 91-18

PP 87-17

AASHTO PP 83-16

Standard Practice for Micro Surfacing Design

Standard Practice for Micro Surfacing Design

AASHTO Designation: PP 83-16 (2018)¹

Technical Section: ~~2a, Emulsified Asphalts~~ 5b, Bridge and
Pavement Preservation

AASHTO

Release: Group 21 (~~August~~ April 2016)

1. SCOPE

- 1.1. This standard practice for mix design evaluation uses mixture properties to determine the proportions of polymer-modified emulsified asphalt, mineral aggregate, water, mineral filler, and additives to produce a micro surfacing job-mix formula.
- 1.2. The values stated in SI units are to be regarded as the standard. The inch-pound units are presented in parentheses for informational purposes and may not be exact equivalents.

2. REFERENCED DOCUMENTS

- 2.1. *AASHTO Standards:*
 - M 85, Portland Cement
 - M 295, Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
 - M 303, Lime for Asphalt Mixtures
 - M 316, Polymer-Modified Emulsified Asphalt
 - MP 2B, Materials for Micro Surfacing
- 2.2. *ANSI Standard:*
 - NSF/ANSI 60-2013, Drinking Water Treatment Chemicals-Health Effects
- 2.3. *ISSA Standards:*
 - ISSA TB 100, Test Method for Wet Track Abrasion of Slurry Surfacing Systems
 - ISSA TB 109, Test Method for Measurement of Excess Asphalt in Bituminous Mixtures by Use of a Loaded Wheel Tester and Sand Adhesion
 - ISSA TB 113, Test Method for Determining Mix Time for Slurry Surfacing Systems
 - ISSA TB 114, Test Method for Wet Stripping of Cured Slurry Surfacing Mixtures
 - ISSA TB 139, Test Method to Determine Set and Cure Development of Slurry Surfacing Systems by Cohesion Tester
 - ISSA TB 144, Test Method for Classification of Aggregate Filler-Bitumen Compatibility by Schulze-Breuer and Ruck Procedures
 - ISSA TB 147, Test Method for Measurement of Stability and Resistance to Compaction, Vertical and Lateral Displacement of Multilayered Fine Aggregate Cold Mixes

3. SIGNIFICANCE AND USE

- 3.1.

AASHTO PP 83-16 Contents

- ▶ Scope
- ▶ Referenced Documents
- ▶ Significance and Use
- ▶ Evaluation of Materials
- ▶ Design Process
- ▶ Determining Mix time
- ▶ Determining Set & Cure Characteristics
- ▶ Determining Binder Content
- ▶ Determining Asphalt-to-Aggregate Compatibility
- ▶ Determining Lateral Displacement
- ▶ Report
- ▶ Keywords
- ▶ References

AASHTO MP 28-17

Standard Specification for Materials for Micro Surfacing

Standard Specification for Materials for Micro Surfacing

AASHTO Designation: MP 28-17 (2018)¹

**Technical Section: 5b, Bridge and Pavement
Preservation**

Release: Group 1 (April)



1. SCOPE

- 1.1. This standard covers requirements for emulsified asphalt, aggregate, mineral filler, and water used in micro surfacing. Micro surfacing is placed on existing pavement surfaces using specially designed paving machines.

2. REFERENCED DOCUMENTS

- 2.1. *AASHTO Standards:*
- M 17, Mineral Filler for Bituminous Paving Mixtures
 - M 85, Portland Cement
 - M 295, Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
 - M 303, Lime for Asphalt Mixtures
 - M 316, Polymer-Modified Emulsified Asphalt
 - PP 83, Micro Surfacing Design
 - T 11, Materials Finer Than 75- μ m (No. 200) Sieve in Mineral Aggregates by Washing

AASHTO MP 28-17 Contents

- ▶ Scope
- ▶ Referenced Documents
- ▶ Terminology
- ▶ Significance and Use
- ▶ Emulsified Asphalt Requirements
- ▶ Aggregate Requirements
- ▶ Mineral Filler
- ▶ Water
- ▶ Additives
- ▶ Key Words

Thank You

Any Questions or Comments?