



**SUPPLEMENTAL SPECIFICATIONS
FOR
ASPHALT EMULSIONS CONTAINING GILSONITE**

**Effective Date
May 15, 2012**

THE STANDARD SPECIFICATIONS, SERIES 2009, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SUPPLEMENTAL SPECIFICATIONS AND THEY PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

2308.02, Materials.

Add the following to the Article:

When specified, emulsion shall contain a minimum of 18% Gilsonite Ore with the following modifications to Section 4140:

Tests on Residue from Distillation, or Evaporation¹ (AASHTO T 59)

- Viscosity at 275°F (135°C) ASTM D 4402 = 1.750 Pa·s maximum
- Solubility in trichloroethylene ASTM D 2042 = 97.5% minimum
- Penetration AASHTO T 49 = 50 dmm maximum
- Asphaltenes ASTM D 2007 = 15% minimum
- Saturates ASTM D 2007 = 15% maximum
- Polar Compounds ASTM D 2007 = 25% minimum
- Aromatics ASTM D 2007 = 15% minimum

1) AASHTO T 59 is modified by reducing the temperatures to 300°F (149°C) maximum for distillation or evaporation test methods.

2308.03, C, Dilution.

Add the following to the Article:

Emulsions containing Gilsonite use a dilution rate of one part asphalt emulsion to one part water.

2308.03, D, 1.

Replace the Article:

Uniformly apply the diluted asphalt emulsion at the rate of 0.20 gallon per square yard (0.9 L/m²) of shoulder surface. Emulsions containing Gilsonite use a rate of 0.12 gallons per square yard (0.54 L/m²) of shoulder surface. The application rate may be ~~reduced~~ modified as directed by the Engineer.

2308.04, Method of Measurement.

Renumber Articles B and C and **Add** new Article:

B. Asphalt Emulsion Containing Gilsonite for Fog Seal (Shoulders).

As provided in Article 2307.04, B, for undiluted Asphalt Emulsion Containing Gilsonite for Fog Seal (Shoulders).

BC. Sand.

Not be measured for payment.

CD. Traffic Control.

Lump sum for the contract.

2308.05, Basis of Payment.

Renumber Article B and Add new Article:

B. Asphalt Emulsion Containing Gilsonite for Fog Seal (Shoulders).

1. Per gallon (liter) for undiluted Asphalt Emulsion Containing Gilsonite for Fog Seal (Shoulders) that is mixed and used on the project. Diluted asphalt emulsion that is delivered to job site, but not applied to roadway surface will not be considered for payment.
2. Payment is full compensation for:
 - a. Cleaning shoulder surface.
 - b. Furnishing and applying diluted asphalt emulsion.
 - c. Mixing water.
 - d. Furnishing and applying sand cover.
 - e. Protecting adjacent pavement and edge lines, including special protection and dams in areas of superelevated curves.

BC. Traffic Control.

The following changes apply to the Developmental Specifications for Milled Rumble Strips – HMA or PCC Surface:

2548.02, B, 1.

Add the following to the Article:

Emulsion may contain Gilsonite Ore with the following modifications to Section 4140:

Tests on Residue from Distillation, or Evaporation¹ (AASHTO T 59)

- Viscosity at 275°F (135°C) ASTM D 4402 = 1.750 Pa·s maximum
- Solubility in trichloroethylene ASTM D 2042 = 97.5% minimum
- Penetration AASHTO T 49 = 50 dmm maximum
- Asphaltenes ASTM D 2007 = 15% minimum
- Saturates ASTM D 2007 = 15% maximum
- Polar Compounds ASTM D 2007 = 25% minimum
- Aromatics ASTM D 2007 = 15% minimum

1) AASHTO T 59 is modified by reducing the temperatures to 300°F (149°C) maximum for distillation or evaporation test methods.

2548.03, C, 3.

Add the following to the Article:

Emulsions containing Gilsonite, apply at a rate of 0.12 gallons per square yard (0.54 L/m²) of rumble strip surface. Application rate may be modified as directed by the Engineer.

2548.04, Method of Measurement.

Add new Article:

D. Asphalt Emulsion Containing Gilsonite for Fog Seal (Shoulder Rumble Strips).

Gallons (liters) as provided in Article 2307.04, B, computed from field measurements of distributors or from tank cars or transport trucks as provided in Article 4100.03. When quantities computed from field measurements check within 1.0% of billed gallons (liters), payment will be based on billed gallons (liters). When quantities computed from field measurements differ from billed gallons (liters) by more than 1.0%, payment will be based on quantity from field measurements. From these quantities, any amount used by Contractor as fuel, left in cars, or otherwise not delivered to road surface will be deducted. Engineer will advise Contractor promptly, in writing, of quantities deducted.

2548.05, Basis of Payment.

Add new Article:

D. Asphalt Emulsion Containing Gilsonite for Fog Seal (Shoulder Rumble Strips).

1. Per gallon (liter) for undiluted Asphalt Emulsion Containing Gilsonite for Fog Seal (Shoulder Rumble Strips) that is mixed and used on the project. Diluted asphalt emulsion that is delivered to the project site, but not applied to roadway surface will not be considered for payment.
2. Payment is full compensation for cleaning shoulder surface, furnishing and applying diluted asphalt emulsion, mixing water, and protecting adjacent pavement and edge lines.