

**DELAWARE COUNTY
DELAWARE COUNTY ENGINEER'S OFFICE**

SUPPLEMENTAL SPECIFICATION 1208

FOG SEAL

APRIL 25, 2011

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1208.01 Description. This work shall consist of furnishing all materials, equipment, labor and preparation necessary for the application of a light coating of asphalt emulsion to an existing or newly constructed pavement or chip sealed surface.

1208.02 Materials. Asphalt emulsion SS-1, SS-1h, CSS-1 or CSS-1h conforming to 702.04 diluted with up to 50 percent water. Water shall be clean and clear and free of incompatible soluble salts or minerals.

1208.03 Equipment. Provide equipment conforming to the requirements of this section. Obtain approval of equipment before starting the job.

Use equipment for asphalt emulsion distribution conforming to 407.03, except ensure that it has a computerized rate control that automatically adjusts the emulsion pump to the unit ground speed and has a gauge or meter in plain view for reading gallons (liters). Use appropriate spray nozzles for the material and rate specified.

Furnish accurate thermometers for determining any of the applicable temperature requirements of this specification.

1208.04 Weather Limitations. Place the fog seal when the pavement and atmospheric temperature is 60 °F (16 °C) or above and the atmospheric temperature is 70 °F (24 °C) or above. Do not schedule the performance of this work for the time period before May 1 or after September 1. Do not place fog seal if any of the following conditions exist:

A. Impending weather conditions do not allow for proper curing or if temperatures are forecasted below 50 °F (10 °C) within 24 hours from the time of work.

- B. The existing pavement temperature is 140 °F (60 °C) or above.
- C. The pavement surface is wet or rain is forecasted within 24 hours of placement.

1208.05 Surface Preparation. The Contractor shall clean the pavement surface prior to placement with a power broom or road sweeper. Clean any muddy or dirty areas by flushing with water. Allow surface to dry completely prior to applying asphalt emulsion.

1208.06 Application of Asphalt Emulsion. The Contractor shall follow the construction methods as described.

Apply the asphalt emulsion at the target rate(s) established during the test strip.

Maintain the asphalt emulsion temperature from 150 to 185 °F (65 to 85 °C) during construction, including the start of each day. Reheat the asphalt emulsion at a rate of no more than 25 °F (14 °C) per hour, when the asphalt emulsion is allowed to cool below 150 °F (65 °C).

If the target application rates are not the optimum application rates to achieve proper coating of the existing or newly constructed pavement or chip sealed surface or the break time is too long or short, immediately notify the Engineer. Adjust and document the new application rate by stationing.

Do not allow the asphalt emulsion to streak on the road surface. If the Engineer determines that streaking is occurring, cease operations until the Engineer is satisfied that streaking has been eliminated.

For chip seal surfaces, apply the asphalt emulsion in two directions at approximately 50 percent of the final desired application rate for each pass.

Apply the asphalt emulsion to all exposed areas of asphalt or chip sealed surface as directed by the Engineer including driveway aprons, mailbox pull offs and areas wider than the normal operating width of the distributor.

Unless otherwise specified in the Contract Documents, maintain one-way, two lane traffic on two lane highways in accordance with Standard Drawing MT-97.11 and as directed by the Engineer. Maintain traffic on multi-lane highways as specified by the Contract Documents. Traffic shall be considered incidental to the performance of this item.

A. Asphalt Emulsion Application Rates

**TABLE 1208.06-1
ASPHALT EMULSION APPLICATION RATE**

Material	Gallons per Square Yard	
	Asphalt Concrete Surface	Chip Seal Surface
50% Diluted Emulsion	0.03 – 0.11	0.06 – 0.15

1208.07 Acceptance. During the application of the fog seal, inspect the fog seal for deficiencies resulting from poor workmanship, flushing, tracking from equipment, surface patterns, and sweeping. Inspect workmanship for untreated areas, minimum overlap on longitudinal joints, and minimum overlap on construction joints.

Verify the following for daily acceptance:

- A. Fog seal edge is neat and uniform along the roadway lane, shoulder, and curb lines.
- B. Fog seal has no surface patterns such as lean or heavy lines.
- C. Fog seal has no bleeding/flushing areas.
- D. Fog seal uniformly covers all portions of chip sealed surface including mailbox and driveway aprons.

Perform all corrective work to the satisfaction the Engineer.

1208.08 Method of Measurement. The Department will measure Fog Seal by the number of gallons of pre-diluted asphalt material applied according to Item 109.

1208.09 Basis of Payment. The Department will not pay for non-uniformly applied materials as defined in 407.06.

No additional compensation shall be made for additional work required to apply asphalt emulsion to areas outside the normal operating width of the distributor.

Unless provided by the Contract Documents, no additional compensation shall be made for maintaining traffic during preparation for and application of fog seal.

The Department will pay for accepted quantities at the contract prices as follows:

Item	Description	Unit
1208	Fog Seal	Gallon