TERRA FOG

TERRA FOG ™

Non-Petroleum Based Asphalt Maintenance Product

ROADWAYS — AIRFIELDS — PARKING LOTS

Cost-Effective and Eco-Friendly Chip Seal Preservation

TERRA FOG ™ is a high-quality, environment-friendly, and cost-effective solution for improving performance and extending service life in chip seals. Chip seals, also known as seal coats, are an inexpensive way to preserve asphalt pavements and prevent further deterioration of their structure.

TERRA FOG ™ reinforces the chip seal by reducing asphalt oxidation, preventing brittleness and weakness. If the asphalt in a chip seal becomes brittle due to aging, it will be unable to hold the chips in place, resulting in potentially dangerous aggregate loss. Terra Fog ™ penetrates between the aggregates and seals the asphalt surface of the chip seal, forming a protective layer over the asphalt surface, minimizing exposure to air and preventing the aging of asphalt as a result of oxidation.

Before Application with Terra Fog ™

TERRA FOG ™ EXTENDS PAVEMENT LIFE. A chip seal's service life can be extended significantly >6x by using Terra Fog™ to properly maintain the asphalt's engineering properties by sealing the asphalt. Terra Fog's low viscosity allows it to penetrate down into the asphalt layer, minimizing friction loss observed in other fog sealant materials.

TERRA FOG™ IS SAFE AND ECO-FRIENDLY. As a non-petroleum-based product that contains no solvents, Terra Fog™ will not damage the land the roads is on or vehicles. **Only water evaporates from** Terra Fog ™ **during the curing process and no volatile organic compounds (VOCs) are emitted into the atmosphere.** Terra Fog ™ is water-diluted, so it poses no risk to people or the environment, much safer than petroleum-based sealers.

After Application with Terra Fog ™

TERRA FOG™ REDUCES CHIP LOSS. Its low viscosity, unique among other fog seals, allows it to penetrate further into the pavement's structure and heal small cracks. Terra Fog™ **reaches deep into the bottom layer of the pavement to protect the base layer from water infiltration and degradation by sealing loose particles.** Test sections of Terra Fog™ have shown that the level of fine materials pumped into the base after heavy rains was reduced dramatically**,** and research studies conducted at lab and field test sections have demonstrated that Terra Fog™ binds the aggregate in place, reduces chip loss over time, and lowers the risk of vehicle damage from loose aggregate. Terra Fog™ is the ideal alternative to petroleum-based fog sealants.

TERRA FOG™ IS EASY TO USE. No special equipment or handling procedures are required. Simply dilute one part product with four or five parts water in a holding tank, and then evenly distribute it over the asphalt. The surface must be cleaned thoroughly before application, which is best accomplished with a power broom or blower. In order for proper cohesion to occur between Terra Fog ™ and the surface, the entire area of coverage should be dry and above 55 F (13 C). Suggested application rates should be followed, as over-application can create slippery conditions.

ORDERING and RECEIVING TERRA FOG ™. Terra Fog™ is manufactured in Central Texas, USA. The product is calculated at a rate of 0.03 to 0.22 gallons per square yard (0.15 to 1.0 L/m2). A spray temperature of 55˚ F (13˚ C) is recommended. Terra Fog ™ can be ordered in any quantity and can be shipped worldwide. Please contact EEI for more information.

WEB: www.ecoestates.us/tp.html info@ecoestates.us

Special Provision to Item 315.

For this item, the following changes are made:

Item 315

Polymer Fog Seal

Article 315.1 is modified as follows:

1. DESCRIPTION

Apply an emulsified polymer and water mixture as an aggregate loss preventative or surface seal.

Article 315.2 is modified as follows:

2. MATERIALSUse a polymer fog seal meeting the following requirements.

2.1 Specialty fog seal materials must be low volatile content water based emulsions of polymers specifically designed for use as fog seals and must meet the requirements of Table 1.

Table 1
Fog Seal Material Properties1

Property	Procedure	Min	Max
Viscosity, 77°F, Krebs unit	D 562	30	60
Sieve test, %	T 59	-	0.1
Storage stability, 1 day, %	T 59	-	1
Residue by evaporation, %	T 59	5	-

2.2 For materials diluted either by the manufacturer or at the jobsite, the final diluted material must meet these requirements.

2.3 Materials that are prequalified under this specification will still be subject to a regular approval process, as described in Tex-545-C, “Asphalt Binder Quality Program.” Use a material specifically designed as a polymer fog seal as shown on the plans or as approved. Provide water in accordance with Article 204.2, “Materials.”

Use a quantity of emulsified polymer in the mixture, expressed as a percentage of total volume, which meets the percentage shown on the plans or directed.

Article 315.4 is modified as follows:

4. CONSTRUCTION

Apply the mixture when the air temperature is at or above 60°F, or above 50°F and rising. Measure the air temperature in the shade away from artificial heat. The Engineer will determine when weather conditions are suitable for application.

Material shall be applied at ambient temperatures.

Distribute material at the rate shown on the plans or as directed.

Open the treated surface to traffic no sooner than 48 hours or as directed.

Care should be taken to avoid over application of the polymer to ensure good skid resistance results

Article 315.5 is modified as follows:

5. MEASUREMENT

This Item will be measured by the sy of the polymer water mixture covered area.

Article 315.6 is modified as follows:

6. PAYMENT

The work performed and the materials furnished in accordance with this Item and measured as provided under “Measurement” will be paid for at the unit price bid for “Polymer Fog Seal” of the type and grade specified. This price is full compensation for materials, equipment, labor, tools, and incidentals.

Texas Department of Transportation