

Item No. **310S**
Emulsified Asphalt Treatment

310S.1 Description

This item shall govern one or more applications of a mixture of emulsified asphalt and water to be used as a base or subgrade treatment, earthwork seal for erosion control, prime coat or dust palliative, which is constructed in accordance with the Drawings and these specifications. This mixture may be applied to the base course, subgrade, shoulders or detours at the locations and to the extent indicated on the Drawings or as directed by the Engineer or designated representative.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, the inch-pound units are given preference followed by SI units shown within parentheses.

310S.2 Submittals

The submittal requirements of this specification item include:

- A. List of recommended materials (i.e. emulsified asphalt, dispersal agent, etc.).
- B. Recommended use, rate of application and percent emulsified asphalt in the mixture.
- C. Characteristics (i.e. manufacturer, rate of application, speed, etc.) of the proposed sprinkler including calibration documentation.

310S.3 Materials

The emulsified asphalt used shall meet the requirements of Standard Specification Item No. 301, "Asphalts, Oils and Emulsions". The water used shall be clean and free from industrial wastes and other objectionable matter.

310S.4 Construction Methods

The emulsified asphalt mixture shall be applied by a self-propelled sprinkler that is equipped with positive and rapidly working cut-off valves and approved spray bars. The sprinkler shall be capable of maintaining the distribution of the mixture in a uniform and controllable rate of application and shall be operated, so as to uniformly distribute the mixture in the quantity required for the use.

The emulsion may be mixed in the sprinkler tank. The Contractor shall make suitable provisions for agitating the materials sufficiently to produce a uniform blend. The sprinkler tank shall have been calibrated within three (3) years from the date it is first used on this project. The Engineer shall be furnished an accurate and satisfactory record of such calibration. After beginning the work, if the yield of the emulsion applied appears to be in error, the distributor shall be calibrated in a manner satisfactory to the Engineer or designated representative before proceeding with the work.

An approved dispersal agent shall be added to water and sprayed on severely weathered asphalt surfaces to be treated in accordance with asphalt manufacturer's recommendations.

Where indicated on the Drawings, the "Emulsified Asphalt Treatment" shall be mixed with the base or subbase material. The emulsified asphalt and water mixture shall be applied and incorporated in the top portion of subbase or base course layers to the depth and width indicated on the Drawings or as directed by the Engineer or designated representative. Successive applications of a mixture of emulsified asphalt and water shall be completed for the area to be treated, with either a pressure distributor or an approved sprinkler, and the procedure shall be continued until all of the specified amount of emulsified asphalt has been incorporated in the material.

The percentage of emulsified asphalt in the mixture shall be regulated to insure that the specified amount of emulsified asphalt is incorporated in the material while maintaining the proper moisture content.

The treated material shall be mixed by blading, then shaped and compacted, as required by the pertinent specifications for the particular course, to the lines, grades and typical sections indicated on the Drawings. The surface shall be maintained with light applications of emulsified asphalt and water mixture or raw water, as directed by the Engineer or designated representative, during curing of the course.

Temporary pavement markings will be in accordance with Item No. 864S, "Abbreviated Pavement Markings".

310S.5 Rates of Application

Use	Rate of Application	
	Gallons/Square Yard	Liters/Square Meter
Dust Palliative	0.05 to 0.1	0.25 to 0.45
Base Course	0.35 to 0.5	1.60 to 2.25
Earthwork Seal	0.1 to 0.35	0.45 to 1.60
Prime Coat	See Specification Item No. 306S	
Pavement Seal	0.1 to 0.35	0.45 to 1.60

310S.6 Measurement

Emulsified asphalt will be measured by the gallon (liters: 1 liter equals 0.264 gallons) of emulsified asphalt used in the emulsified asphalt and water mixture.

310S.7 Payment

The work performed and the emulsified asphalt furnished as prescribed by this item and measured as provided under "Measurement" will be paid for at the unit bid price for "Emulsified Asphalt" of the type specified. The price shall include full compensation for furnishing all required materials, mixing water for application, Dispersal Agent and for all freight involved; for all hauling, mixing and distributing the mixture, as specified; and for all manipulation, labor, tools, equipment, temporary pavement markings and incidentals necessary to complete the work

Payment will be made under:

Pay Item No. 310S: Emulsified Asphalt Per Gallon.

End

<i>SPECIFIC</i> CROSS REFERENCE MATERIALS
Specification Item 310S "Emulsified Asphalt Treatment"

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 301	Asphalts, Oils and Emulsions
Item No. 864S	Abbreviated Pavement Markings

<i>RELATED</i> CROSS REFERENCE MATERIALS

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 206S	Asphalt Stabilized Base
Item No. 210S	Flexible Base
Item No. 306S	Prime Coat
Item No. 307S	Tack Coat
Item No. 310S	Emulsified Asphalt Treatment
Item No. 311S	Emulsified Asphalt Repaving
Item No. 320S	Two Course Surface Treatment
Item Ni. 340	Hot Mix Asphaltic Concrete Pavement
Item No. 403	Concrete Structures

City of Austin Standard Details

<u>Designation</u>	<u>Description</u>
1000S-10	Local Street Sections
1000S-11(1)	Residential and Neighborhood collector Street Sections
1000S-11(2)	Industrial and Collector Street Sections
1000S-12(1)	Primary Collector Street Sections
1000S-12(2)	Primary Arterial Street Sections
1000S-13(1)	Minor Arterial Street Sections (4 Lanes)
1000S-13(2)	Minor Arterial Street Sections- (4 Lanes divided)
1000S-14	Major Arterial Street

Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges

<u>Designation</u>	<u>Description</u>
Item 300	Asphalts, Oils and Emulsions
Item 301	Asphalt Antistripping Agents
Item 310	Prime Coat (Cutback Asphaltic Materials)
Item 314	Emulsified Asphalt Treatment
Item 345	Asphalt Stabilized Base (Plant Mixed)
Item 520	Weighing and Measuring Equipment