

SECTION 02742

PRIME COAT

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Prime coat for asphalt concrete paving

1.02 MEASUREMENT AND PAYMENT

- A. Unit Prices.

- 1. Payment will be made for prime coat on the basis of gallons applied under this Section.
- 2. Refer to Section 01270 - Measurement and Payment for unit price procedures.

- B. Stipulated Price (Lump Sum). If Contract is Stipulated Price Contract, payment for work in this Section is included in total Stipulated Price.

1.03 SUBMITTALS

- A. Conform to requirements of Section 01330 - Submittal Procedures.
- B. Submit product data for proposed prime coat.
- C. Submit report of recent calibration of distributor.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Bituminous. Unless the type and grade are shown on the plans, utilize an MC-30 or AE-P asphalt cement in accordance with Item 300, "Asphalts, Oils, and Emulsions" of the Standard Specifications of the Texas Department of Transportation for prime coat. Where Emulsified Asphalts are used, the amount of emulsified asphalt as a percentage by volume of the total mixture shall be within the limits shown on the plans, or shall be of a percentage as directed by the Engineer.

Blotter. Unless otherwise shown on the plans or approved, use either base course sweepings obtained from cleaning the base or sand as blotter materials.

2.02 EQUIPMENT

Provide applicable equipment in accordance with this specification or as specified on the plans.

- A. Distributor. Furnish a distributor that will apply the asphalt material uniformly at the specified rate or as directed.
1. Transverse Variance Rate. When a transverse variance rate is shown on the plans, confirm that the nozzles outside the wheel paths will output a predetermined percentage more of asphalt material by volume than the nozzles over the wheel paths.
 2. Calibration.
 - a. Transverse Distribution. Furnish a distributor test report, no more than 1 year old, documenting that the variation in output for individual nozzles of the same size does not exceed 10% when tested at the greatest shot width in accordance with Tex-922-K, "Calibrating Asphalt Distribution Equipment," Part III. Include the following documentation on the test report:
 - the serial number of the distributor,
 - a method that identifies the actual nozzle set used in the test, and
 - the fan width of the nozzle set at a 12 inch bar height.
 - b. When a transverse variance rate is required, perform the test using the type and grade of asphalt material to be used on the project. The Engineer may verify the transverse rate and distribution at any time. If verification does not meet the requirements, correct deficiencies and furnish a new test report.
- B. Tank Volume. Furnish a volumetric calibration and strap stick for the distributor tank in accordance with Tex-922-K, "Calibrating Asphalt Distribution Equipment," Part I.
- Calibrate the distributor within the previous 3 years of the date first used on the project. The Engineer may verify calibration accuracy in accordance with Tex-922-K, "Calibrating Asphalt Distribution Equipment," Part II.
- C. Computerized Distributor. When paying for asphalt material by weight, the Engineer may allow use of the computerized distributor display to verify application rates. Verify application rate accuracy at a frequency acceptable to the Engineer.

- D. Broom. Furnish rotary, self-propelled brooms.
- E. Rollers. Rollers provided shall meet the requirements for their type as shown in TxDOT Item 210, "Rollers."
- F. Asphalt Storage and Handling Equipment. When the plans or the Engineer allows storage tanks, furnish a thermometer in each tank to indicate the asphalt temperature continuously. Keep equipment clean and free of leaks. Keep asphalt material free of contamination.
- G. Digital Measuring Instrument. Furnish a vehicle with a calibrated digital-measuring instrument accurate to ± 6 ft. per mile.

PART 3 EXECUTION

3.01 CONSTRUCTION

- A. General. Apply the mixture when the air temperature is 60°F and above, 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. Do not permit traffic, hauling, or placement of subsequent courses over freshly constructed prime coats. Maintain the primed surface until placement of subsequent courses or acceptance of the work
- B. Surface Preparation. Prepare the surface by sweeping or other approved methods. When directed, before applying bituminous material, lightly sprinkle the surface with water to control dust and ensure absorption.
- C. Application.
 - 1. Bituminous. The Engineer will select the application temperature within the limits recommended in TxDOT Item 300, "Asphalts, Oils, and Emulsions." Apply material within 15°F of the selected temperature.

Unless otherwise shown on the plans, prime coat shall be applied at a rate not to exceed 0.20 gallon per square yard of surface. The prime coat shall be applied evenly and smoothly, under a pressure necessary for proper distribution. When emulsified asphalts are used as prime coat, agitate the water and emulsified asphalt to produce a uniform blend. Evenly distribute, at the rate specified, to location shown on the plans or as directed. Regulate the percentage of emulsified asphalt in the mixture and distribute successive applications to achieve the specified rate, if necessary.

During the application of prime coat, care shall be taken to prevent splattering of adjacent pavement, curb and gutters or structures. When directed, roll the freshly applied prime coat with a pneumatic-tire roller to ensure penetration.

2. Blotter. Spread blotter material before allowing traffic to use a primed surface. When "Prime Coat and Blotter" is shown on the plans as a bid item, apply blotter material to primed surface at the rate shown in the plans or as directed. When "Prime Coat" is shown on the plans as a bid item, apply blotter to spot locations or as directed to accommodate traffic movement through the work area. Remove blotter material before placing the surface. Dispose of blotter material according to applicable state and federal requirements.

END OF SECTION