

SECTION 32 12 36 ASPHALT SLURRY SEAL COAT

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. This Section specifies the requirements for placing an asphalt slurry seal coat upon an existing asphalt pavement surface for maintenance purposes as determined from the drawings and in accordance with these specifications.

1.2 APPLICABLE PUBLICATIONS

The following publications of the latest issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by the references thereto:

- A. Texas Department of Transportation 2004 Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges (TxDOT).
 - 1. Item 300 - Asphalts, Oils and Emulsions
 - 2. Item 302 - Aggregates for Surface Treatments
 - 3. Item 316 - Surface Treatments
 - 4. Item 320 – Equipment for Asphalt Concrete Pavement
- B. American Society for Testing and Materials Standards (ASTM)
 - 1. D 8-02 – Standard Terminology Relating to Materials for Road Pavements
 - 2. D 698 - Moisture Density Relations of Soil Using 5.5 Pound Rammer and 12 Inch Drop.
- C. Texas Department of Transportation Test Procedures
 - 1. TEX 207-F – Determining Density of Compacted Bituminous Mixtures
 - 2. TEX 227-F – Theoretical Maximum Specific Gravity of Bituminous Mixtures

1.3 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 32 17 23.13 Painted Pavement Markings
- B. Section 32 17 23.33 Thermoplastic Pavement Markings
- B. Section 32 12 16 Asphaltic Concrete Paving
- C. Section 32 22 13 Site Grading
- D. Section 31 11 00 Clearing and Grubbing

1.4 DEFINITIONS

- A. Hot-Mix Asphalt Paving Terminology: Refer to ASTM D 8 for definitions of terms.

1.5 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.
- B. Material Certificates: For each paving material, signed by manufacturers.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
 - 1. Manufacturer shall be a paving-mix manufacturer registered with and approved by authorities having jurisdiction or if none exist, the DOT of the state in which Project is located.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp or if the following conditions are not met:
 - 1. Prime and Tack Coats: Minimum surface temperature of 60 deg F.
 - 2. Slurry Seal Coat: Comply with weather limitations of ASTM D 3910.

PART 2 - PRODUCTS

2.1 ASPHALTIC MATERIALS

- A. Asphaltic material shall conform to the applicable requirements of Item 300, TXDOT. Asphalt Emulsion shall be AC-5.

2.2 MINERAL AGGREGATE

- A. The aggregate and mineral filler shall be a graded sand mixture conforming to the following:

U.S. Standard Sieve Size	Total Percent Passing
No. 8	100
No. 16	65-90
No. 30	40-60
No. 50	25-42
No. 100	15-30
No. 200	10-20

2.3 SEAL COAT MIXTURE

- A. The seal coat mixture shall be mixed in the following proportions based upon a 220 pound aggregate mixture. A larger mix may be made using the proper proportions.

Material	Weight (lbs)
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Aggregate including mineral filler	220
Asphalt emulsion	33-66
Water, including water present in the emulsion and aggregate	22-33 (as required for proper consistency)

2.4 EQUIPMENT

- A. All equipment necessary to perform the work within the scope of this Section shall conform to requirements of TxDOT Item 316, Article 316.3.

2.5 WATER

- A. Water used for mixing or curing shall be reasonably clean and free of oil, salt, acid, alkali, sugar, vegetable matter or other substances injurious to the finished product.
- B. Water sources other than the local municipal domestic water supply must be approved by the Owner.
 - 1. If onsite reclaimed water sources are used, tanks and apprenices must be clearly marked with the words "non-potable" water.

PART 3 - EXECUTION

3.1 GENERAL

- A. Asphalt Surface Course shall be applied to existing asphaltic surface in accordance with TxDOT Item 316 Article 316.4.
- B. Samples will be tested in accordance with TEX 207-F and TEX 227-F and test results shall be reported the same day the tests are made.

3.2 SURFACE PREPARATION

- A. Potholes and other structural failure of the surface shall be repaired prior to placing the seal coat.
- B. The surface shall be swept clean of all debris, dirt, loose gravel and other loose articles. If necessary, the surface can be washed, but the surface must be dry before the seal coat is applied.

3.2 SLURRY SEAL COAT APPLICATION

- A. Mix asphalt emulsion, water, mineral filler and aggregate in a mixer.
- B. Apply mixture in an average thickness of 1/16th to 1/8th inches. The mixture should form a creamy-textured mixture which, when spread, will flow in a wave approximately two (2) feet ahead of the strike-off squeegee.

- C. Allow mixture to cure for 48 hours.
- D. Apply a second seal coat in the same manner as the first coat and allow the second coat to cure for 48 hours.
- E. Test surface at the end of the second curing process to insure surface is dry and not tacky. Apply paint for striping and open for traffic after paint has dried.

END OF SECTION