

## SECTION 425: TACK COAT

### 425.1 DESCRIPTION

This work shall consist of providing and applying asphalt Material to an existing bituminous or Portland cement concrete surface.

### 425.2 MATERIALS

Tack coat asphalt Material shall be one of the following types unless otherwise specified in the plans or Contract documents:

1. RS-1, CRS-1, CRS-2;
2. SS-1, SS-1H, CSS-1, CSS-1H;
3. HFE-90, HFE-150;
4. Other Material approved by the City Engineer or designee.

#### 425.2.1 Emulsified Asphalt

Emulsified asphalt shall consist of uncracked petroleum asphalt uniformly emulsified with water and an emulsifying or stabilizing agent. Emulsified asphalt shall be homogenous and show no separation of asphalt after thorough mixing. Anionic emulsified asphalt shall meet the requirements of AASHTO M 140 and cationic emulsified asphalt shall meet the requirements of AASHTO M 208.

#### 425.2.2 High-Float Emulsions

High-float emulsions of the designation HFE-90 and HFE-150 shall meet the requirements of Table 425.2.2:1, "High-Float Emulsions Requirements."

**Table 425.2.2:1  
High-Float Emulsions Requirements**

Test	HFE-90	HFE-150
Viscosity, Saybolt Furol @ 122 °F, Seconds	50+	50+
Sieve Test, Retained on No. 20 Sieve, %	.10-	.10-
Settlement, 5 Days, %	5-	5-
Storage Stability Test, 1 Day, %	1-	1-
Demulsibility, 1.2 fl oz 0.10 N, CaCl, %	30+	N/A
Residue from Distillation Test to 500°F	65+	65+
Oil Distillate by Volume of Emulsion, %	3-	7-
<b>Tests on Residue from Distillation Test</b>		
Penetration at 77°F, 3.5 oz, 5 sec, 0.1mm	90-150	150-300
Coating Test 3 minutes	All Grades, Stones Coated Thoroughly	
Float test at 140°F, seconds	1200+	1200+

### 425.3 CONSTRUCTION REQUIREMENTS

### **425.3.1 Application of Tack Coat Asphalt Material**

Tack coat asphalt Material shall be uniformly applied with a pressure distributor at a rate determined by the City Engineer or designee or as shown in the plans. The application rate used shall provide a “residual” asphalt cement content from 0.04 gallons per square yard to 0.08 gallons per square yard. The nozzles on the pressure distributor shall be kept fully open and at the same angle from the spray bar, approximately 30°. The spray bar shall be kept at a height above the pavement surface to provide for a double or triple lap of the applied asphalt Material.

Tack coat asphalt Material shall be applied to all existing HMA or concrete surfaces prior to overlay with HMA. Tack coat asphalt Material shall be applied between layers of HMA however, tack coat may be omitted between layers of HMA with prior approval of the City Engineer or designee provided the overlying layer is placed within twenty-four (24) hours of the underlying layer’s placement and provided the underlying layer remains tacky and has not become dirty under traffic or from windblown dust.

Tack coat asphalt Material shall be applied to all vertical surfaces that are adjacent to the placement of HMA including but not limited to curb and gutter, cold pavement joints, construction joints, longitudinal joints, concrete structures, manholes, and valve boxes.

Traffic shall be kept off of the tack coat unless otherwise approved by the City Engineer or designee. If the roadway being paved is closed to traffic, the Contractor may place tack coat a maximum of 24 hours ahead of the laydown operation. If the Roadway being paved is open to traffic, tack coat shall be placed only over the area that can be paved during that day’s laydown operation.

If the Contractor uses an emulsified asphalt tack coat, the Contractor may begin paving operations after the emulsified asphalt is cured.

Reapplication of tack coat asphalt Material damaged by traffic or construction Equipment will be at no cost to the City.

Application of tack coat asphalt Material, loading and cleaning of distributor, dilution rates of tack coat asphalt Material concentrate where applicable, curing of Material and storage shall be accomplished in accordance with the manufacturer’s recommendations or as directed by the City Engineer or designee.

### **425.3.2 Equipment**

The Equipment shall include an asphalt distributor and Equipment for heating asphalt Material. Equipment for heating and applying tack coat asphalt Material shall meet the requirements of Section 420, Prime Coat of these Standard Specifications.

### **425.3.3 Preparation of Surface**

The surface and edges to be tack coated shall be dry, patched, cleaned, and free of dirt, surface moisture, vegetation and other Deleterious Materials or irregularities. This work shall be considered incidental to Asphalt *Material for Tack Coat* and no separate payment will be made.

### **425.3.4 Temperature and Weather Limitations**

Tack coat asphalt Material shall not be applied on a wet surface. Tack coat asphalt Material shall not be applied when the air temperature is below the manufacturer's recommended application temperature.

**425.4 METHOD OF MEASUREMENT**

Asphalt Material for Tack Coat will be measured by the ton. The City will consider any water added to further dilute emulsified asphalt incidental to *Asphalt Material for Tack Coat* and no separate payment will be made.

**425.5 BASIS OF PAYMENT**

**Pay Item**

**Pay Unit**

*Asphalt Material for Tack Coat*  
Ton