

unit is specified, the quantity will be determined by compacted measurements on the road unless otherwise specified. When the ton unit is specified, the quantity shall be determined in accordance with the requirements of Section 109.01 and moisture, in excess of optimum +2 percentage points, will be deducted from the net weight of both truck and rail shipments.

**Calcium chloride and sodium chloride** will be measured in tons and will be paid for at the contract unit price per ton.

These prices shall include preparing and shaping the subgrade or subbase and shoulders, adding moisture, removing and replacing unstable subgrade or subbase and constructing the base course thereon, and filling test holes.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Aggregate base material (Type/no.)	Cubic yard or ton
Aggregate material (No.)	Cubic yard or ton
Calcium chloride	Ton
Sodium chloride	Ton

## SECTION 310—TACK COAT

### 310.01—Description.

This work shall consist of preparing and treating an existing asphalt or concrete surface with asphalt in accordance with the requirements of these specifications and in reasonably close conformity with the lines shown on the plans or as established by the Engineer.

### 310.02—Materials.

Asphalt for tack coat shall be CRS-1, CRS-2, CRS-1h or CSS-1h and conform to the requirements of Section 210. CMS-2, conforming to the requirements of Section 210, may be used during the winter months. With the exception of CMS-2, asphalt for tack coat may be diluted with 50 percent water provided that resulting material produces a uniform application of the tack.

### 310.03—Procedures.

Equipment for heating and applying asphalt shall conform to the requirements of Section 314.04(b). The maximum application temperature of liquid asphalt shall conform to the requirements of Table III-1.

The existing surface shall be patched, cleaned, and rendered free from irregularities to the extent necessary to provide a reasonably smooth and uniform surface. Unstable corrugated areas shall be removed and replaced with suitable patching materi-

**TABLE III-1**  
**Liquid Asphalt Application Temperature**

<b>Grade</b>	<b>Max. Temperature (°F)</b>
RC-70	180
RC-250	220
RC-800	225
RC-3000	290
MC-70	180
MC-250	220
MC-800	255
MC-3000	290
AC-5	300
AC-10	300
AC-20	300
AC-40	300
RS-2	175
SS-1h	180
AE-4	150
CRS-2	175
CSS-1h	180
CMS-2	200
CRS-1h	175
CRS-1	175

als. The edges of existing pavements that are to be adjacent to new pavement shall be cleaned to permit adhesion of asphalt.

Tack material shall be uniformly applied with a pressure distributor conforming to the requirements of Section 314.04(b). Hand spray equipment shall not be used except in areas inaccessible by a pressure distributor. Undiluted asphalt shall be applied at the rate of 0.05 to 0.10 gallons per square yard. Diluted asphalt shall be applied at the rate of 0.10 to 0.15 gallons per square yard.

The tack coat shall be applied in a manner to offer the least inconvenience to traffic and permit one-way traffic without pickup or tracking of the asphalt.

The tack coat shall not be applied immediately prior to the course being placed. The tack coat shall be applied in accordance with the same weather limitations that apply to the course being placed. The quantity, rate of application, temperature, and areas to be treated shall be approved prior to application.

During the application of asphalt, care shall be taken to prevent spattering adjacent items. The distributor shall not be cleaned or discharged into ditches or borrow pits, onto shoulders, or along the right of way. When not in use, equipment shall be parked so that the spray bar or mechanism will not drip asphalt on the surface of the traveled way.

**310.04—Measurement and Payment.**

Tack coat, when a pay item, will be measured in gallons and will be paid for at the contract unit price per gallon. When not a pay item, the cost thereof shall be included in the price for other appropriate pay items.

Patching will be paid for at the contract unit price for the various items used unless a reconditioning item is included in the Contract.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Tack coat	Gallon

**SECTION 311—PRIME COAT****311.01—Description.**

This work shall consist of preparing and treating an existing surface with asphalt, and cover material if required, in accordance with the requirements of these specifications and in reasonably close conformity with the lines shown on the plans or as established by the Engineer.

**311.02—Materials.**

- (a) **Asphalt** may be changed one viscosity grade by the Engineer during construction at no change in the contract unit price. Asphalt shall conform to the applicable requirements of Section 210.
- (b) **Cover material** shall conform to the applicable requirements of Section 202 or 203. Lightweight aggregate shall conform to the requirements of Section 206. Cover material shall not be hauled directly from a washing plant for immediate use in the work.

**311.03—Procedures.**

The rates of application of materials shall be determined in accordance with the method described in Education Series No. 12 of the Asphalt Institute entitled *Asphalt Surface Treatments Construction Techniques*.

The weather limitations of Section 314.03 shall apply to asphalt prime coat work. When asphalt is to be used as a cover for cement stabilization or as a primer for