

SECTION 310

TACK AND PRIME COAT

I. GENERAL

1.1 DESCRIPTION OF WORK

A. Tack Coat

The Contractor shall furnish all labor, supervision, material (except as herein provided), tools, equipment, supplies, and services; and, shall perform all Work necessary for 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 in the Contract Documents or as established by the Owner.

B. Prime Coat

The Contractor shall furnish all labor, supervision, material (except as herein provided), tools, equipment, supplies, and services; and, shall perform all Work necessary for 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 in the Contract Documents or as established by the Owner.

1.2 MATERIALS

Materials shall be furnished by the Contractor in accordance with Section 200.

1.3 SUBMITTALS

Submittals shall be made by the Contractor in accordance with the procedures set forth in Section 105 and as described below:

The Contractor shall submit reports of material analysis and asphalt mix designs confirming conformance of all materials with the requirements of this section and all applicable VDOT or permit requirements.

II. EXECUTION

2.1 PROCEDURES

A. Tack and Prime Coat

Equipment for heating and applying asphalt shall conform to the requirements of *VDOT Road and Bridge Specifications Section 314.04(b)*. The maximum application temperature of liquid asphalt shall conform to the requirements of the following table.

TABLE 310-1**Liquid Asphalt Application Temperature**

<u>Grade</u>	<u>Max. Temperature (Deg. F)</u>
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-20	300
PG64-22	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

B. Tack Coat

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 materials. The edges of existing pavements that are to be adjacent to new pavement shall be cleaned to permit adhesion of asphalt.
2. Tack material shall be uniformly applied with a pressure distributor conforming to the requirements of *VDOT Road and Bridge Standard Specifications 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 1.15 gallons per square yard
3. 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.
4. The tack coat shall be allowed to cure prior to the next 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.
5. During the application of asphalt, care shall be taken to prevent spattering adjacent items. The distributor shall not be cleaned or discharged into ditches, 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.

C. Prime Coat

1. 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*.
2. Asphalt prime coat shall not be placed when surfaces are wet or when the air temperature is below 50°F. When asphalt is to be used as a cover for cement stabilization or as a primer for asphalt concrete, the weather limitations specified for these particular operations shall apply.
3. The surface to be primed shall be shaped to the required grade and section; rendered free from ruts, corrugations, segregated material, or other irregularities; and uniformly compacted. Delays in priming may necessitate reprocessing or reshaping to provide a smooth compacted surface.
4. 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.
5. Asphalt shall be applied by means of a pressure distributor in a uniform continuous spread. When traffic is maintained, not more than 1/2 the width of the section shall be treated in one application. Care shall be taken that the application of asphalt at junctions of spreads is not in excess of the specified amount. Excess asphalt shall be removed from the surface by a squeegee. Skipped areas or deficiencies shall be corrected.
6. When traffic is maintained, one-way traffic shall be permitted on the untreated portion of the roadbed. When the asphalt has been absorbed by the treated surface and will not pick up, traffic shall be transferred to the treated portion and the remaining width of the section primed.
7. The quantity, rate of application, temperature, and areas to be treated shall be approved before application of the prime coat.
8. If after application of the prime coat the asphalt fails to penetrate within the time specified and the roadway must be used by traffic, cover material shall be spread at the Contractor's expense in an amount that will prevent pickup of the asphalt.

III. MEASUREMENT FOR PAYMENT

- A. Tack coat, when a pay item, will be measured and paid in gallons. When not a pay item, the cost shall be included in the price for other appropriate pay items.
- B. Prime coat, when a pay item, will be measured and paid in gallons. When not a pay item, the cost shall be included in the price for other appropriate pay items. Asphalt measurement shall be in accordance with *VDOT Road and Bridge Specifications Section 109*.

- C. Items considered incidental work will not be measured for payment or paid for as such. Incidental items are identified in Section 109 and also include the following:
1. Maintaining Treatment
 2. Cover Material, if needed

End of Section