

**SECTION 02741**  
**PRIME AND TACK COATS**

**PART 1 - GENERAL**

1.01 SCOPE OF WORK

The work specified in this Section consists of the application of bituminous material on previously prepared base in accordance with these specifications and in conformity with the line, grades, dimensions and notes shown on the Drawings.

**PART 2 - PRODUCTS**

2.01 MATERIALS

- A. Liquid Asphalt for Prime Coat shall be Asphalt Emulsion Prime (AEP) meeting the requirements of D.O.T. Specifications Section 916-4 and Section 300.
- B. Liquid Asphalt for Tack Coat shall be Asphalt Emulsion Prime (AEP), conforming to the requirements of D.O.T. Specification Section 916-4 and Section 300.

2.02 EQUIPMENT

- A. The pressure distributor used for placing the tack or prime coat shall be equipped with pneumatic tires having sufficient width of rubber in contact with the road surface to avoid breaking the bond of or forming a rut in the surface. The distance between the centers of openings of the outside nozzles of the spray bar shall be equal to the width of the application required, within an allowable variation of 2-inches. The outside nozzle at each end of the spray bar shall have an area of opening of not less than 25 percent, nor more than 75 percent in excess of the other nozzles which shall have uniform openings. When the application covers less than the full width, the normal opening of the end nozzle at the junction line may remain the same as those of the interior nozzle.
- B. Application of prime or tack coat shall be done with a distributor approved by the Engineer of Record.

**PART 3 - EXECUTION**

3.01 PREPARATION

- A. Before applying any bituminous material, all loose material, dust, dirt, and foreign material, which might prevent proper bond with the existing surface, shall be removed. Particular care shall be taken to clean the outer edges of the strip to be treated in order to insure that the prime or tack coat will adhere.

- B. When the prime or tack coat is applied adjacent to curb and gutter, or any other concrete surface (except where they are to be covered with a bituminous wearing course) such concrete surfaces shall be protected by heavy paper or other protective material while the prime or tack coat is being applied. Any bituminous material deposited on such concrete surfaces shall be removed immediately.

### 3.02 WEATHER LIMITATIONS

No bituminous material shall be applied when the air temperature is less than 50°F in the shade, or when the weather conditions or the condition of the existing surface is unsuitable. In no case shall bituminous material be applied while rain is falling or when there is water on the surface to be covered.

### 3.03 APPLICATION OF PRIME COAT

- A. After the base has been finished, the full width of surface shall be swept with a power broom supplemented with hand brooms and mechanical blowers prior to the application of the prime coat. Care shall be taken to remove all loose dust, dirt and objectionable matter. If deemed necessary, the base shall be lightly sprinkled with water immediately in advance of the prime coat. The prime coat shall be applied to the full width of the base.
- B. The temperature of the prime material shall be such as to insure uniform distribution. The material shall be applied with a pressure distributor as specified above. The amount to be applied shall be sufficient to coat the surface thoroughly and uniformly without any excess to form pools or to flow off the base. For limerock base, the rate of application shall not be less than 0.10 gallons per square yard.
- C. If the roadway is to be opened for use following the application of the prime material, a light uniform application of clean sand shall be applied and rolled. The sand shall be nonplastic, shall be free from silt and rock particles and shall not contain any sticks, vegetation, grass, roots or organic matter. After the sand covering has been applied, the surface may be opened to traffic.

### 3.04 APPLICATION OF TACK COAT

- A. In general, a tack coat will not be used on primed bases except in areas which have become excessively dirty and cannot be cleaned or where the prime has cured and lost all of its bonding effect.
- B. No tack coat shall be applied until the primed base or leveling course or new or existing asphaltic concrete has been cleaned and is free from sand, dust or other objectionable material.
- C. The tack coat shall be applied with a pressure distributor as specified above. It shall be heated to a suitable consistency and applied in a thin uniform layer at the rate of between 0.05 gallons and 0.15 gallons per square yard.
- D. The tack coat shall be applied sufficiently in advance of the laying of the wearing surface to permit drying, but shall not be applied so far in advance or over such an area as to lose its

adhesiveness as a result of being covered with dust or other foreign material. The tack coat shall not advance ahead of the paving by more than 300 feet in business or residential areas unless otherwise approved by the Engineer. Suitable precautions shall be taken by the Contractor to protect the surface while the tack coat is drying and until the wearing surface is applied.

END OF SECTION