



SECTION 40 – BITUMINOUS TACK COAT

40-1 GENERAL

The Contractor shall perform all work required by the plans for application of bituminous tack coat in accordance with the Standard Specifications, except as specified otherwise in FAA Specification Item P-603, as included and modified hereafter, and as shown on the Plans or as directed by the Engineer.

Tack coat shall be required prior to paving bituminous concrete on concrete or asphalt, and on underlying lifts of multiple-lift asphalt paving. Both horizontal and vertical faces shall be tacked.

ITEM P-603 BITUMINOUS TACK COAT

DESCRIPTION

603-1.1 This item shall consist of preparing and treating a bituminous or concrete surface with bituminous material in accordance with these specifications and in reasonably close conformity to the lines shown on the plans.

MATERIALS

603-2.1 BITUMINOUS MATERIALS. The bituminous material shall be either cutback asphalt, emulsified asphalt, or tar and shall conform to the requirements of Table 1. The type, grade, controlling specification, and application temperature of bituminous material to be used shall be specified by the Engineer.

Table 1			
BITUMINOUS MATERIAL			
Type and Grade	Specification	Application Temperature	
		Deg. F	Deg. C
<i>Paving Asphalt</i>	<i>AASHTO M320</i>		
<i>Same grade as pavement being tacked</i>		<i>285-347</i>	<i>140-175</i>
<i>Emulsified Asphalt</i>			
<i>SS-1, SS-1h</i>	<i>ASTM D 977</i>	<i>75-130</i>	<i>25-55</i>



CONSTRUCTION METHODS

603-3.1 WEATHER LIMITATIONS. *The tack coat shall be applied only when the existing surface is dry and the atmospheric temperature is above 60°F (15°C). The temperature requirements may be waived, but only when so directed by the Engineer.*

603-3.2 EQUIPMENT. *The Contractor shall provide equipment for heating and applying the bituminous material.*

The distributor shall be designed, equipped, maintained, and operated so that bituminous material at even heat may be applied uniformly on variable widths of surface at the specified rate. The allowable variation from the specified rate shall not exceed 10 percent. Distributor equipment shall include a tachometer, pressure gages, volume-measuring devices or a calibrated tank, and a thermometer for measuring temperatures of tank contents. The distributor shall be self-powered and shall be equipped with a power unit for the pump and full circulation spray bars adjustable laterally and vertically.

If the distributor is not equipped with an operable quick shut off valve, the tack operations shall be started and stopped on building paper. The Contractor shall remove blotting sand prior to asphalt concrete lay down operations at no additional expense to the owner.

A power broom and/or blower shall be provided for any required cleaning of the surface to be treated.

603-3.3 APPLICATION OF BITUMINOUS MATERIAL. *Immediately before applying the tack coat, the full width of surface to be treated shall be swept with a power broom and/or airblast to remove all loose dirt and other objectionable material.*

Emulsified asphalt shall be diluted by the addition of water when directed by the Engineer and shall be applied a sufficient time in advance of the paver to ensure that all water has evaporated before any of the overlying mixture is placed on the tacked surface.

The bituminous material including vehicle or solvent shall be uniformly applied with a bituminous distributor at the rate of 0.05 to 0.15 gallons per square yard depending on the condition of the existing surface. The type of bituminous material and application rate shall be approved by the Engineer prior to application.



Following the application, the surface shall be allowed to cure without being disturbed for such period of time as may be necessary to permit drying out and setting of the tack coat. This period shall be determined by the Engineer. The surface shall then be maintained by the Contractor until the next course has been placed. Suitable precautions shall be taken by the Contractor to protect the surface against damage during this interval.

603-3.4 BITUMINOUS MATERIAL CONTRACTOR'S RESPONSIBILITY.
Samples of the bituminous material that the Contractor proposes to use, together with a statement as to its source and character, must be submitted and approved before use of such material begins. The Contractor shall require the manufacturer or producer of the bituminous material to furnish material subject to this and all other pertinent requirements of the contract. Only satisfactory materials so demonstrated by service tests, shall be acceptable.

The Contractor shall furnish the vendor's certified test reports for each carload, or equivalent, of bituminous material shipped to the project. The tests reports shall contain all the data required by the applicable specification. If the Contractor applies the material prior to receipt of the tests reports, payment for the material shall be withheld until they are received. If the material does not pass the specifications it shall be replaced at the contractor's expense. The report shall be delivered to the Engineer before permission is granted for use of the material. The furnishing of the vendor's certified test report for the bituminous material shall not be interpreted as a basis for final acceptance. All such test reports shall be subject to verification by testing samples of material received for use on the project.

603-3.5 FREIGHT AND WEIGH BILLS. *Before the final estimate is allowed, the Contractor shall file with the Engineer receipted bills when railroad shipments are made, and certified weigh bills when materials are received in any other manner, of the bituminous materials actually used in the construction covered by the contract. The Contractor shall not remove bituminous material from the tank car or storage tank until the initial outage and temperature measurements have been taken by the Engineer, nor shall the car or tank be released until the final outage has been taken by the Engineer. Copies of freight bills and weigh bills shall be furnished to the Engineer during the progress of the work.*

METHOD OF MEASUREMENT

603-4.1 *See Section 40-2.*

BASIS OF PAYMENT



603-5.1 See Section 40-3.

MATERIAL REQUIREMENTS

ASTM D 633 Volume Correction Table for Road Tar

ASTM D 977 Emulsified Asphalt

ASTM D 1250 Petroleum Measurement Tables

ASTM D 2028 Cutback Asphalt (Rapid-Curing Type)

ASTM D 2397 Cationic Emulsified Asphalt

*Asphalt Institute
Manual MS-6
Table IV-3*

*Asphalt Pocketbook of Useful Information (Temperature-
Volume Corrections for Emulsified Asphalts)*

END ITEM P-603

40-2 METHOD OF MEASUREMENT

The bituminous material for tack coat will not be measured for payment.

40-3 BASIS OF PAYMENT

Bituminous Tack Coat is considered incidental to other bid items, and no separate payment will be made.

END OF SECTION 40