

SECTION S407 – TACK COAT

S407-1 DESCRIPTION

Work consists of preparing and treating portland cement concrete and hot mix asphalt (HMA) surfaces with tack coat as required in Contract Documents and as directed by Project Manager.

For purposes of this specification, all references are in accordance with *NYSDOT Standard Specifications (US Customary Units dated May 1, 2008)* edition, including any addenda.

S407-2 MATERIALS

Tack coat is to meet requirements of NYSDOT Section 702 Bituminous Materials for following emulsion grades:

Asphalt Emulsion – Diluted Tack Coat	702-3401
Asphalt Emulsion – Straight Tack Coat	702-3002

S407-3 CONSTRUCTION DETAILS

S407-3.01 General

Diluted tack coat is to be used for conventional hot mix asphalt (HMA) pavements, and is to be applied between all lifts of HMA courses. Diluted tack coat is to be applied on top of milled pavement surface, and on top of concrete base.

Straight tack coat may be used for conventional hot mix asphalt (HMA) pavement overlay, only if existing pavement is not milled. Straight tack coat may also be used on steeper graded pavements, for nighttime paving operations, or for late season paving.

S407-3.02 Equipment

Distributor is to be designed, equipped, maintained and operated so that tack coat can be heated and applied uniformly at readily determined and controlled rates and with uniform pressure, on pavement surfaces of variable widths, up to 15 feet wide.

Distributor equipment is to include quantity measuring system and thermometer for measuring temperature of tank contents. Prior to being used, equipment is to be calibrated in accordance with ASTM D 2995 Standard Practice for Estimating Application Rate of Bituminous Distributors, or any other equivalent calibration procedure acceptable to Project Manager. Project Manager will witness equipment calibration, or require Contractor to provide documentation certifying calibration.

Distributor is to be equipped with power unit for pump, and circulation spray bars which are adjustable both laterally and vertically. Bristle broom that drags on pavement behind spray bars may be attached to distributor, and is adjustable both laterally and vertically so that full width of tack coat being applied is bristled uniformly onto pavement surface.

Distributor is to be equipped with bituminous material sampling valve attached to distributor. When samples are taken through sampling valve, samples will be considered representative of all material in tank.

Distributor tank is to be equipped with an agitator that is capable of ensuring tack coat remains homogeneous, and that tack coat stored in distributor tank is heated and maintained at temperature of between 85°F and 160°F.

Hand operated spray units will be permitted only in areas where use of distributor is impractical.

S407-3.03 Application

Tack coat is to be uniformly applied across width of designated area by pressure distributor onto prepared clean pavement surface.

Tack coat is to be applied to offer least inconvenience to traffic and to permit one-way traffic where practical, to prevent pickup or tracking of tack coat material.

Tack coat is not to be applied on wet pavement surface, or when pavement surface temperature is below 40°F.

Recommended application rate in gallons per square yard is:

Surface Type	Application Rate (gallons per square yards)	
	Diluted Tack Coat	Straight Tack Coat
New Hot Mix Asphalt (HMA)	0.05 – 0.06	0.03 – 0.04
Milled Surface and Existing Hot Mix Asphalt (HMA)	0.08 – 0.10	0.05 – 0.06
Portland Cement Concrete	0.08 – 0.10	0.05 – 0.06
Vertical Surfaces (curbs, drainage structures, miscellaneous appurtenances)	0.09 – 0.11	0.06 – 0.07

These are recommended application rates for tack coat on various surface types and may be modified as approved of by Project Manager.

S407-4 METHOD OF MEASUREMENT

Quantity to be measured for payment will be number of square yards of pavement surface treated, or number of gallons of tack coat applied. Number of gallons of tack coat will be as measured at 60°F to nearest gallon.

S407-5 BASIS OF PAYMENT

Unit price bid includes cost of: preparation of pavement surface; furnishing and applying tack coat; and furnishing all labor, material and equipment necessary to complete work.

Payment will be made under:

ITEM NO.	ITEM	PAY UNIT
S407.0201	Diluted Tack Coat	Square Yard
S407.0202	Straight Tack Coat	Square Yard
S407.0301	Diluted Tack Coat	Gallon
S407.0302	Straight Tack Coat	Gallon

REVISED May 1, 2013