Section 413—Bituminous Tack Coat

413.1 General Description
This work includes furnishing and applying a bituminous tack coat on a prepared road surface including cleaning the road surface.

413.1.01 Definitions
General Provisions 101 through 150.

413.1.02 Related References
A. Standard Specifications
   Section 109—Measurement and Payment
   Section 400—Hot Mix Asphaltic Concrete Construction
   Section 424—Bituminous Surface Treatment
   Section 427—Emulsified Asphalt Slurry Seal
   Section 820—Asphalt Cement
   Section 824—Cationic Asphalt Emulsion

B. Referenced Documents
   General Provisions 101 through 150.

413.1.03 Submittals
General Provisions 101 through 150.

413.2 Materials
Ensure that materials meet the following Specifications:

<table>
<thead>
<tr>
<th>Material</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt cement, performance grade PG 58-22, PG 64-22, or PG 67-22</td>
<td>820.2.01</td>
</tr>
<tr>
<td>Cationic emulsified asphalt CRS-2h or CRS-3</td>
<td>824.2.01</td>
</tr>
</tbody>
</table>

Asphalt cement of performance grade PG 58-22, PG 64-22 or PG 67-22 is used for bituminous tack coat in work performed in Section 400. Use cationic emulsified asphalt as a special application material only if directed by the Engineer.

The Department may change the grade or type of bituminous materials without a change in the Contract Unit Price if the Engineer determines that the grade or type selected is not performing satisfactorily.

413.2.01 Delivery, Storage, and Handling
General Provisions 101 through 150.

413.3 Construction Requirements

413.3.01 Personnel
General Provisions 101 through 150.

413.3.02 Equipment
Provide equipment in good repair, including the following units that meet the requirements of Subsection 424.3.02, Equipment."

- Power broom and blower
- Pressure distributor

413.3.03 Preparation
General Provisions 101 through 150.
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413.3.04 Fabrication
General Provisions 101 through 150.

413.3.05 Construction

A. Seasonal and Weather Limitation
   Do not apply tack coat if the existing surface is wet or frozen. Do not place emulsified asphalt if the air temperature in the shade is less than 40 °F (4 °C).

B. Application
   Coat the entire areas to be paved with the tack coat unless directed otherwise by the Engineer. Apply tack coat with distributor spray bars instead of hand hoses, except in small areas that are inaccessible to spray bars.

C. Temperature of Material
   Apply bituminous materials within the temperature ranges specified below.

<table>
<thead>
<tr>
<th>Bituminous Materials</th>
<th>Temperature of Application °F (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt cement</td>
<td>350 - 400 (175 - 205)</td>
</tr>
<tr>
<td>CRS-2h</td>
<td>140 - 180 (60 - 80)</td>
</tr>
<tr>
<td>CRS-3</td>
<td>140 - 180 (60 - 80)</td>
</tr>
</tbody>
</table>

D. Cleaning
   Immediately before applying the tack coat, clean the entire area free of loose dirt, clay, and other foreign materials.

E. Application Rate
   The Engineer will determine the application rate of the bituminous tack coat.

F. Limitations and Areas Coated
   Apply only enough tack coat to the prepared road surface that can be covered with the new pavement course the same working day the tack coat is applied.

G. Maintenance and Protection
   After applying the tack coat material, allow it to break until it is tacky enough to receive the surface course. Do not allow traffic on the tack.

413.3.06 Quality Acceptance
General Provisions 101 through 150.

413.3.07 Contractor Warranty and Maintenance
General Provisions 101 through 150.

413.4 Measurement
Bituminous materials for tack coat applied and accepted are measured as outlined in Subsection 109.02, “Measurement of Bituminous Materials.”

Diluting emulsified tack coat is not ordinarily allowed except when used underneath slurry seal. The composition of diluted emulsified tack coat defined in Subsection 427.3.05, “Construction” is measured by the gallon (liter) of diluted mix.

413.4.01 Limits
General Provisions 101 through 150.

413.5 Payment
The accepted volume of bituminous material will be paid for at the Contract Unit Price per gallon (liter) for bituminous tack coat of the type and grade approved by the Engineer, complete in place. Payment is full compensation for preparing, cleaning, furnishing, hauling, applying material, and providing incidentals to complete the work.

Payment will be made under:
Section 413—Bituminous Tack Coat

<table>
<thead>
<tr>
<th>Item No. 413</th>
<th>Bituminous tack coat</th>
<th>Per gallon (liter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item No. 413</td>
<td>Diluted emulsified asphalt tack coat</td>
<td>Per gallon (liter)</td>
</tr>
</tbody>
</table>

413.5.01 Adjustments

General Provisions 101 through 150.