

**412.5 Payment**

Bituminous material for prime is not paid for separately. The cost to clean the surface, furnish, haul and apply materials including water and sand, roll, and perform repairs and maintenance is included in the Unit Price bid for each individual Base Item.

**412.5.01 Adjustments**

General Provisions 101 through 150.

**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:

<b>Material</b>	<b>Section</b>
Asphalt cement, performance grade PG 58-22, PG 64-22, or PG 67-22	820.2.01
Cationic emulsified asphalt CRS-2h or CRS-3	824.2.01

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.

**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.

Bituminous Materials	Temperature of Application °F (°C)
Asphalt cement	350 - 400 (175 - 205)
CRS-2h	140 - 180 (60 - 80)
CRS-3	140 - 180 (60 - 80)

**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

**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:

Item No. 413	Bituminous tack coat	Per gallon (liter)
Item No. 413	Diluted emulsified asphalt tack coat	Per gallon (liter)

**413.5.01 Adjustments**

General Provisions 101 through 150.

**Section 414—Hot Asphalt—Rubber Seal Treatment for Stress  
Relieving Interlayer**

**414.1 General Description**

Specifications for this work will be included elsewhere in the Contract.

**Section 424—Bituminous Surface Treatment**

**424.1 General Description**

This work includes placing one or more applications of bituminous material and aggregate on a previously prepared base or pavement.

**424.1.01 Definitions**

- **Single Surface Treatment:** One application of bituminous material that is covered with aggregate.
- **Double Surface Treatment:** A bituminous material application that is covered with aggregate of the size specified in the proposal followed by a second bituminous material application that is covered with a second specified size aggregate.
- **Triple Surface Treatment:** A bituminous material application that is covered with a specified size aggregate followed by subsequent applications of bituminous material that are covered with successively smaller size nominal aggregates.

**424.1.02 Related References**

**A. Standard Specifications**

- Section 105—Control of Work
- Section 800—Coarse Aggregate
- Section 820—Asphalt Cement
- Section 824—Cationic Asphalt Emulsion

**B. Referenced Documents**

- QPL 65

**424.1.03 Submittals**

General Provisions 101 through 150.