

inch (6mm to 12 mm) below the pavement surface. Complete the tooling before a skin forms on the surface of the sealer. Do not use soap or oil as a tooling aid.

NOTE: Tooling will not be required if the sealer is self-leveling.

- (4) **Bonding Failures.** Failure of the sealant to bond to sawed surfaces of the concrete joint will be cause for rejection, and repair shall be at the Contractor's expense.
- (f) **Traffic.** Do not allow traffic on the freshly applied sealant until it becomes tack free.

419.05. METHOD OF MEASUREMENT.

Concrete joint rehabilitation will be measured by the linear foot (meter) after the joint sealant is in place.

419.06. BASIS OF PAYMENT.

The accepted quantities, measured as provided above, will be paid for at the contract unit price as follows:

CONCRETE JOINT REHABILITATION LINEAR FOOT (METER)

Such payment shall be full compensation for furnishing all materials, equipment, labor and incidentals to complete the work as specified.

SECTION 420 FABRIC REINFORCEMENT FOR ASPHALT CONCRETE PAVEMENT

420.01. DESCRIPTION.

This work shall consist of the application of reinforcement fabric for plant mix asphalt concrete pavement in accordance with these Specifications and in reasonably close conformity with the locations and dimensions shown on the Plans or established by the Engineer.

420.02. MATERIALS.

Materials shall meet the requirements specified in the following Subsections of Section 700 - Materials:

Reinforcement Fabric	712.01
Asphalt Cement	708.03

420.03. EQUIPMENT.

- (a) **General.** Furnish equipment and tools necessary for performing all parts of the work in conformance with Subsection 108.06.
- (b) **Distributors.** Distributors shall meet the requirements of Subsection 401.03 and be equipped with a hand spray with a single nozzle and positive shut off valve.

- (c) **Fabric Laydown Equipment.** Mechanical laydown equipment shall be capable of handling full or partial rolls of fabric and shall be capable of laying the fabric smoothly without excessive wrinkles and/or folds. When manual laydown is required, a length of standard 1 inch (25 mm) pipe—together with suitable roll tension devices—shall be used for proper roll handling.
- (d) **Miscellaneous Equipment.** Miscellaneous equipment shall include stiff bristle brooms to smooth the fabric, scissors or blades to cut the fabric, and brushes as required for use in applying asphalt binder to fabric overlap at spliced joints.
- (e) **Pneumatic Tired Rollers.** Pneumatic tired rollers shall meet the requirements of Subsection 401.03.

420.04. CONSTRUCTION METHODS.

- (a) **Surface Preparation.** The surface on which the fabric is to be placed shall be free of dirt, dust, water, oil, or other foreign matter.
- (b) **Application of Bituminous Binder.** Heat the bituminous binder material, and, using an asphalt distributor, apply uniform spray over the area to be fabric covered. Mop the laps between layers of fabric. The longitudinal lap may be sprayed with the distributor. Hand spray areas not accessible to the distributor. When starting or stopping the distributor, use paper or roofing felt to provide neat cutoff lines.

The minimum application temperature of the bituminous binder shall not be less than 290°F (143°C), and if the fabric is oversprayed, the maximum application temperature shall not exceed 325°F (163°C) to avoid damage to the fabric. Apply the bituminous binder at the approximate rate of 0.2 gallons per square yard (0.9 L/m²). The *actual* application rates will be established by the Engineer.

The width of binder application shall be 2 to 6 inches (50 to 150 mm) wider than the fabric width. Be careful in the application of the binder to avoid spills or excessive application which would cause flushing of the bituminous material.

- (c) **Placement of Reinforcement Fabric.** Place the fabric after the bituminous binder has been applied and before the binder has cooled and lost tackiness. Unroll the fabric and place it into the binder with the unfused (fuzzy) side down and with a minimum of wrinkles, making every effort to lay the fabric as smoothly as possible. Broom the fabric to remove air bubbles and maximize fabric contact with the pavement surface. Cut wrinkles and lay them out flat. If misalignment of the fabric occurs, cut, realign, and joint the fabric as directed by the Engineer.

Overlap fabric at joints between 4 to 6 inches (100 to 150 mm). Shingle transverse joints in the direction of paving to prevent edge pick up by the paver. Apply additional binder to joints at the rate specified by the Engineer. Mop, brush, or hand spray transverse joints. Spray the longitudinal joints with the distributor. Embed the reinforcement fabric into the bituminous binder, and bond it to the pavement. Self-propelled pneumatic tired rollers may be used if deemed necessary by the Engineer.

If fabric is not overlaid the same day, blot it with clean, dry sand before traffic is restored. Sand for blotting will be included in other items for payment. In the event excess binder bleeds

through the fabric before the overlay is placed, blot the excess material by spreading sand on the affected area as directed by the Engineer.

- (d) **Weather Limitations.** Do not apply asphalt binder for installation of the fabric when the ambient air temperature is less than 50°F (10°C) unless otherwise approved by the Engineer.
- (e) **Tack Coat.** If tack coat is required for the pavement overlay, apply it in accordance with Section 407. The bituminous material type, grade, rate of application and temperature shall be approved by the Engineer. Do not use cut-back asphalt or emulsified asphalt containing petroleum distillate.
- (f) **Pavement Overlay.** Placement of the asphalt concrete pavement overlay should closely follow fabric lay down unless otherwise permitted by the Engineer.

NOTE: Any damage or disbonding of the fabric reinforcement membrane caused by traffic or wet weather conditions shall be repaired at the Contractors expense.

The temperature of the paving mix at time of placement on the reinforcement fabric membrane shall not exceed 325°F (163° C) to prevent damage to the fabric. The turning of pavers or other vehicles should be gradual and kept to a minimum to avoid damage to the fabric. Should equipment tires pick up the fabric or the paver cause movement of the membrane during paving operations, asphalt paving mix may be broadcast ahead of trucks and the paver to prevent damage.

NOTE: Any damage to the reinforcement membrane due to equipment shall be repaired at the Contractor's expense.

420.05. METHOD OF MEASUREMENT.

Fabric reinforcement will be measured by the square yard (square meter) in place.

Bituminous binder will be measured by the gallon (liter) in accordance with Subsection 109.01(a).

420.06. BASIS OF PAYMENT.

The accepted quantities of fabric reinforcement and bituminous binder, measured as provided above, will be paid for at the contract unit price as follows:

- (A) FABRIC REINFORCEMENT SQUARE YARD (SQUARE METER)
- (B) BITUMINOUS BINDER. GALLON (LITER)

Such payment shall be full compensation for furnishing all materials, equipment, labor and incidentals to complete the work as specified.