

Item 428

Penetrating Concrete Surface Treatment



1. DESCRIPTION

Prepare surface and apply a penetrating sealant treatment to concrete surfaces shown on the plans to be treated.

2. MATERIALS

Provide penetrating surface treatment in accordance with [DMS-8140](#), "Penetrating Concrete Surface Treatment."

Do not dilute or alter the treatment material.

3. CONSTRUCTION METHODS

Refer to the manufacturer's specifications for instruction on the use of the treatment material in addition to the requirements of this Item.

Apply surface treatment to locations shown on the plans.

Do not treat surfaces given a higher finish as defined in Item 427, "Surface Finishes for Concrete," unless otherwise shown on the plans.

Clean newly constructed bridge deck surfaces using shot or abrasive blasting, unless otherwise restricted, followed by vacuuming and air blasting as needed, to remove all visible curing compound, oils, and any other contaminants that retard or prevent penetration of the treatment material before treatment application. Additionally, roughen vertical and overhead steel formed surfaces that are smooth in appearance by abrasive blasting or other approved method. Completely remove all spent abrasive media. Demonstrate the method of cleaning to the Engineer before proceeding.

Clean existing concrete surfaces by water blasting or abrasive blasting or as shown on the plans. Before blast cleaning, solvent clean areas where oil residue is present.

Do not damage the concrete surface to the point the coarse aggregate is exposed.

Apply the treatment material after:

- the cleaned surface has been accepted by the Engineer,
- the concrete surface is allowed to dry in conformance with the manufacturer's specifications and at least 24 hr. after exposed to moisture,
- grinding or grooving operations, if required, are completed,
- the concrete is at least 28 days old, and
- the concrete surface is between 40 and 100°F.

Apply the treatment material at a rate of 100 sq. ft. of surface area per gallon. Treat the upper side of horizontal and near-horizontal surfaces in one pass or coat. Treat the vertical and overhead surfaces in two passes or coats. Apply the first coat to fully saturate the surface and until refusal. Allow the first coat to be absorbed, but do not allow the surface to completely dry before applying the second coat. Wait no longer than 1 hr. for application of the second coat.

Use a spray applicator equipped with a spray bar to apply the treatment material to deck surfaces.

Apply the treatment material at a uniform rate, covering the entire surface being treated.

Follow the treatment material manufacturer's specifications regarding required lapse time before traffic is permitted on the treated surface.

4. MEASUREMENT

This Item will be measured by the square yard of concrete surface treated. This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Penetrating Concrete Surface Treatment (New)" or "Penetrating Concrete Surface Treatment (Exist)." This price is full compensation for furnishing materials, surface preparation, application of treatment, and equipment, labor, tools, and incidentals.