

ITEM 25559.99 M - PROTECTIVE SEALER FOR CONCRETE (HORSEYSET.WDE/DURAL 356-CC)

1. DESCRIPTION:

- 1.01 Under this item, the Contractor shall furnish and place a water based emulsion epoxy protective sealer for concrete on surfaces shown on the plans or as directed by the Engineer.

2. MATERIALS:

- 2.01 The protective sealer for concrete shall be:

HorseSet WDE as manufactured by:

Watson Bowman Acme
95 Pineview Drive
Amherst, NY 14228
Phone: (716) 691-8162

or

Dural 356-CC as manufactured by:

Tamms Industries
7405 Production Drive
Mentor, Ohio 44060
Phone: (800) 862-2667

No other protective sealers shall be allowed.

- 2.02 This material is a two component polyamide/epoxy formulation which will convert to an irreversible solid coating having strong adhesive, weatherproof and waterproofing qualities. The material shall contain low volatile organic compounds (VOC).
- 2.03 The mixed two component non-toxic and odor free coating, breathing type, must be based on a balanced ratio of pigments, water extended resins and hardeners which, when cured, will inhibit absorption of exterior moisture into the pores of the concrete surfaces. Certification from the manufacturer is required stating that the material properties are such as will allow moisture vapor within the concrete to pass through the coatings as tested in accordance with ASTM D-1653. All components shall be separately shipped in new containers with each part clearly identified.
- 2.04 The applied coating must conform to the following minimum physical properties:
- Have excellent resistance to alkalis in accordance with ASTM D-1308, and to chloride ion penetration as tested in accordance with AASHTO T-259.
- Must not contain silicone, or oxidizing ingredients such as marine oils, stearates, or vegetable oils. Will not flake, oxidize, age harden, or show appreciable change in color after 100 hours as tested in accordance with ASTM D-822 and retain its flexibility with movement of the structure.
- Have 35% minimum solids by weight (mixed components). Pigment shall be Cliff Gray Color unless otherwise noted on the Plans.
- a. Must be able to be applied to and cure on freshly poured or damp concrete.
 - b. Product must have minimum five (5) years successful history in similar applications in the bridge market.

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c. Product shall contain no cementitious materials.

2.05 Do not mix more of the two components together than can be applied in the periods specified by the manufacturer. Do not dilute or alter materials supplied by the manufacturer in any way. Prepare for use as follows:

Stir each component separately to re-disperse any settled fillers. Pour specified volumes of each component together in a suitable container or manufacturer approved mixing system. Do not mix at spray nozzle. Failure to properly mix may cause the coating to cure improperly or not to cure at all.

3. CONSTRUCTION DETAILS:

3.01 Concrete surfaces can be coated immediately after concrete cure, with a 90 day minimum time after the pour.

Thoroughly clean concrete to provide surfaces free of any efflorescence, laitance, grease, form release oils, or other foreign substances. Clean and flush all surfaces visibly containing any such bond-inhibiting matter. If contaminants cannot be removed by clean and flush methods, sandblasting may be required.

Properly mask any surfaces not specified to be coated with similar materials, to protect from potential over splatter or spillage.

3.02 Apply materials in a continuous operation, over all surfaces to be treated. Schedule work so that the stopping point each day falls at an opening or corner.

3.03 Uniformly apply protective coating by a minimum of two (2) coats. The first and second coats are to be applied at the rates of cover and temperature limitations as recommended by the manufacturer.

3.04 Apply coatings by spray, brush, or roller. When applied by roller, use a first-quality 300 to 450 width long nap roller for rough surfaces and a shorter nap roller for smooth surfaces. Allow the first coat to dry a minimum of two hours prior to second coat application.

4. METHOD OF MEASUREMENT:

4.01 The quantity to be paid for will be the actual number of square meters of surface area measured in place in the completed work.

5. BASIS OF PAYMENT:

5.01 The unit price bid per square meter shall include the cost of furnishing all labor, materials and equipment necessary, including sandblasting, to complete the work in accordance with the sealer manufacturer's recommendations.