

Designer Note: Use this special when applying the "stretchy paint" listed below to the parapets of an existing structure (and other concrete items). Do not use unless requested by the Bridge Maintenance Engineer. This is NOT the standard Boiled Linseed Oil item. Also needed is the pay item SURFACE FILLER (SPECIAL).

PROTECTIVE COAT (SPECIAL)

Effective: April 23, 2010

Revised: April 28 2026

This work consists of applying a protective coat system as specified herein, on bridge parapets and other concrete surfaces as shown on the plans and as directed by the Engineer.

Materials. The concrete coating shall meet the following material requirements:

Color – Grey

Texture – Smooth

Type – One-component, elastomeric, crack-bridging, anti-carbonation, water vapor permeable.

Weather Resistance – The product shall be intended for exterior applications.

Elongation at Break (ASTM D 2370) minimum 700%

Allowable Products:

- Sika Thorolastic 850
- Or equivalent

Construction. The concrete surface to be coated shall be sound, dry and clean of any foreign material. Surface Preparation shall be according to the Manufacturer's specifications, except blast cleaning or power washing (3,000 psi min.) will be required. If the surface becomes soiled as determined by the Engineer, after either the initial cleaning or after the first coating, the Contractor shall clean the surface at no additional cost to the Department.

Cracks greater than 1/32" shall be caulked prior to coating according to the Special Provision for "SURFACE FILLER (SPECIAL)". Popouts, bug holes, spalls, etc., not filled with SURFACE FILLER (SPECIAL) shall have all surfaces thoroughly sealed with PROTECTIVE COAT (SPECIAL) by any means necessary such as cutting-in with a paint brush.

Mixing, application, and curing of the coating shall be according to the manufacturer's specifications, except application by spraying will not be allowed. A manufacturer's technical representative shall be present on the first day of the surface preparation operations and the first day of coating operations to ensure correct interpretation of the Manufacturer's specifications.

Do not apply material if it is raining or snowing, or if such conditions are imminent. Minimum application temperature 40°F (5°C) and rising.

The protective coat shall be applied in two coats with a minimum 12 hours wait time between coats. The application rate per coat shall produce a dry film thickness between 200-280 microns (8-11 mils). The final dry film thickness of protective coat system shall be between 400-560 microns (16 and 22 mils). Any additional coatings or removal of coatings to stay within the total system range shall be the Contractors responsibility and shall be accomplished at no additional cost to the Department.

The Contractor shall protect pedestrian, vehicular, watercraft, or other traffic upon or underneath the structure and/or roadway and also all portions of the structure and/or roadway against damage or disfigurement during surface preparation and protective coat operations. When doing surface preparation or applying the protective coat over waterways, the Contractor shall implement such controls as are necessary to avoid contamination of the water, spills into the water, or films from collecting on the water surface during operations. If the Engineer determines that the protection methods are not effective, the Engineer will withdraw approval of operations until such time when protective measures are approved.

For bridge projects where an existing structure number that is stenciled on a concrete parapet or pier will be covered by the new Protective Coat (Special), the Contractor shall reapply the stenciled structure number at the same location. The numbers shall be 2" tall and painted with black acrylic paint in the format "xxx-xxxx". This work shall be considered included in the cost of PROTECTIVE COAT (SPECIAL).

Method of Measurements. This work will be measured for payment and the area computed in Square Meters (Square Yards) of parapet wall surface covered, complete in place.

Basis of Payment. The protective coat will be paid for at the contract unit price per Square Yard for PROTECTIVE COAT (SPECIAL).