

## EPOXY PROTECTIVE COATING

(10-12-01)

### 1.0 DESCRIPTION

~~This work consists of preparing the concrete surface and furnishing and applying an epoxy protective coating to the surfaces described in this Special Provision.~~ <sup>When epoxy protective coating is required, cure the top surfaces of the bent or end bents in accordance with the Standard Specifications, but do not use the ~~Blank~~ Curing Compound method.</sup>

### 2.0 MATERIALS

Use an epoxy coating that meets the most recently published NCDOT Specification on the date of advertisement. Use the epoxy coating that meets NCDOT-Type 4A Flexible, epoxy coating, moisture insensitive.

Provide a certification for the proposed epoxy showing that it meets NCDOT-Type 4A.

~~The following companies have epoxies that meet Type 4A Specifications:~~

- ~~E-Bond Epoxy, Inc.  
Fort Lauderdale, Florida 33307~~
- ~~Permagile Industries  
Plainview, NY 11803~~
- ~~Poly-Carb  
Cleveland, OH 44139~~
- ~~Tamms, Inc.  
Mentor, OH 44060~~
- ~~Adhesive Engineering  
Cleveland, OH 44122-5554~~
- ~~Kaufman Products  
Baltimore, MD 21226-1131~~
- ~~Prime Resins  
Lithonia, GA 30058~~
- ~~Sika Corporation  
Lyndhurst, N. J. 07071~~

A copy of the specifications for Epoxy Resin Systems is available from the Materials and Tests Unit.

### 3.0 SURFACES

With the exception of cored slab bridges, apply the epoxy protective coating to the top surface area, including chamfer area, of bent caps under expansion joints and of end bent

420-18(B) 1078-15  
caps, excluding areas under elastomeric bearings. For cored slab bridges, do not apply the epoxy protective coating to the bent or end bent caps. Also, apply epoxy protective coating to the ends of prestressed concrete members as noted on the plans.

Use extreme care to keep the area under the elastomeric bearings free of the epoxy protective coating. Do not apply the epoxy protective coating in the notch at the ends of the prestressed concrete girders.

420-18(B)  
Thoroughly clean all dust, dirt, grease, laitance, and other objectionable material from the concrete surfaces to be coated. Air-blast all surfaces immediately prior to applying the protective coating.

Only use cleaning agents pre-approved by the Engineer.

#### 4.0 APPLICATION

420-18(B)  
Apply epoxy protective coating only when the air temperature is at least 40°F (4°C) and rising, but less than 95°F (35°C) and the surface temperature of the area to be coated is at least 40°F (4°C). Remove any excess or free standing water from the surfaces before applying the coating. Apply one coat of epoxy protective coating at a rate such that it covers between 100 and 200 ft<sup>2</sup>/gal (2.5 and 5.0 liter).

Note: Under certain combinations of circumstances, the cured epoxy protective coating may develop “oily” condition on the surface due to amine blush. This condition is not detrimental to the applied system.

Apply the coating so that the entire designated surface of the concrete is covered and all pores filled. To provide a uniform appearance, use the exact same material on all visible surfaces.

#### 5.0 BASIS OF PAYMENT

~~No separate measurement or payment will be made for preparing, furnishing and applying the epoxy protective coating to the concrete surfaces.~~

~~Payment at the contract unit prices for the various pay items will be full compensation for the above work including all materials, equipment, tools, labor, and incidentals necessary to complete the work.~~