

**SPECIAL NOTE FOR STRUCTURAL ADHESIVES
WITH EXTENDED CONTACT TIME**

This Special Note will apply where indicated on the plans or in the proposal. Section references herein are to the Department's 2008 Standard Specifications for Road and Bridge Construction.

1.0 DESCRIPTION. As an alternate to Type V epoxy, as specified in Subsection 826.02, the Department may allow other structural adhesives to bond plastic concrete to hardened concrete providing the requirements herein are met.

2.0 MATERIALS. Select from the Department's List of Approved Products. Manufacturers desiring to have their products placed on the list shall submit liter samples and appropriate laboratory data to the Division of Materials, 1227 Wilkinson Boulevard, Frankfort, KY 40622 for evaluation.

The Department will test the sample to verify that the product meets the performance criteria submitted by the manufacturer. In addition the Department will perform an infrared scan of the individual components. The resulting spectra will be a reference for field check samples to assure uniformity in chemical formulation of the product.

2.1 Properties of the Mixed Adhesive. Ensure a 90 minute pot life at 73 °F and 50 percent R. H.

2.2 Properties of the Cured Adhesive.

- 1) Compressive Strength (ASTM C-109). 7 Day: 5,000 psi minimum.
- 2) Bond Strength (ASTM C-882 Modified) at 14 Days*.
0 Hours Contact Time: 2,000 psi minimum.
16 Hours Contact Time: 1,500 psi minimum.
- 3) The adhesive shall not produce a vapor barrier.

* ASTM C-882 is modified to allow for the 16-hour contact time. Contact time is the time allowed between application of the bonding agent and placement of the plastic concrete.

3.0 CONSTRUCTION.

3.1 Acceptance. Do not use the material until the Engineer verifies, by visual inspection, that the material is from the Department's List of Approved Materials. Submit a 0.2 ounce field check sample of each component to the Engineer for infrared analysis.

3.2 Surface Preparation. Sand blast steel surfaces to be coated to a white metal finish. Sand blast or clean by other approved mechanical means concrete surfaces. Ensure the surface is clean, sound and saturated surface dry but free of standing water. Remove dust, laitance, grease, curing compounds and any foreign particles just before applying the adhesive.

4.0 MEASUREMENT AND PAYMENT. The Department will not measure the adhesive or its application for payment and will consider it incidental to the concrete.

January 1, 2008