COLORADO DEPARTMENT OF TRANSPORTATION

PRE-APPROVED PRODUCT EVALUATION REQUEST & SUMMARY

APL Reference No. 3050-13

Product Evaluation Coordinator
Colorado Department of Transportation
4670 North Holly Street, Unit A
Denver, Colorado 80216

Material code: 519.01.00.00

FOR INTERNAL CDOT USE

Material code description full name: Overlay, Thin Bonded

PART 1

Product name: Flexolith

Product category: Bridge Structures\Thin Bonded Overlay\Epoxy

Product representative (name & address):
Attn: Brian Lewis
The Euclid Chemical Company
19218 Redwood Road
Cleveland, Ohio 44110
Phone: (216) 692-8305 FAX: (216) 531-9399

Manufacturer (name & address):
Attn: Brian Lewis
The Euclid Chemical Company
19218 Redwood Road
Cleveland, Ohio 44110
Phone: (216) 531-9222 FAX: (216) 531-9596

Web-site address: www.euclidchemical.com

Web-site address: www.euclidchemical.com

Description of the product: (Include specific quantifiable details from tech data sheet. Advertising generalities are not appropriate.)

Flexolith is a low modulus, 100% reactive epoxy binder for producing a flexible multi-layer thin polymer epoxy overlayment per Section 519 of Colorado DOT project specials. When Flexolith is used in conjunction with the recommended Tamms Flint Rock #8 and/or #9 aggregate it provides a high abrasion resistant non-skid surface for resurfacing concrete bridge decks. Application is when ambient temperature and bridge deck is at least 40°F and rising. [Mixed Viscosity cps...1700], [Gel Time per ASTM C 881, Class B = > 30 minutes], [Tensile Strength per ASTM D 638 = 2700 psi (18.6 MPa)], [Tensile Elongation per ASTM D 638 = 30% to 60%], [Compressive Modulus 120,000 psi (827 MPa)], [Compressive Strength per ASTM C 109 (3 parts sand) Mortar @ 4 hours = 1400 psi (9.6 MPa), @ 24 hours = 7040 psi (48.5 MPa)], [Flexural Strength per ASTM C 790 = 5123 psi (35.3 MPa)], [Bond Strength per ASTM C 882 @ 2 days = 2100 psi (14.5 MPa), 7 days = 2400 psi (16.5 MPa)], [Chloride Permeability AASHTO T 77, ASTM C 1202, = <100 coulombs], [Hardness Shore D, ASTM D 2240, min = 65], [Water Absorption 24 hr. % ASTM D 570...<0.5]

Restrictions, (installation and/or use):

Protect from moisture and freezing. Store at temperatures between 40°F to 90°F (4°C to 32°C). Condition Flexolith at 75°F (24°C) for 24 hours prior to use.

Use of the product, (be specific to CDOT highway activities only):

Thin Bonded Epoxy Overlay - • Bridges • Parking decks • Loading docks • Nosing repair applications

Benefits to CDOT, (how will your product enhance quality, improve safety, save money, be a better value then other manufacturer's products):

• Rapid cure, minimizes down-time • Can be used as a mortar or broadcast system • Easy to use

By using this method the benefits are as follows: prolonged life of traffic surfaces, helps to waterproof the top exposed surface which will decrease the amount of chlorides penetrating into the concrete surface, less weight than traditional cement/ latex overlayments to the structure.

Shelf Life: 2 years in original, unopened, properly stored package.

Specifications, (listing those applicable is required) **& Certificate of Compliance** (required to certify compliance with listed specifications):

- [x] CDOT : Project Specification 519
- [x] ASTM : C 881, Type III, Grade 1 Class B; C 2196, D 638, D 570, D 2240, C 1202, C 579, C 884,
- [x] AASHTO : M 235, Type III, Grade 1; T 237
- [ ] FHWA :
- [x] other : ACI 503R

Product testing, (from national/independent laboratories or universities) **& Certified Test Report** (CTR required to validate all claims):

- [x] NTPEP-AASHTO : *PCO-2014-01-001
- [ ] FHWA :
- [x] other : TEC Services (June 10, 2009) (December 2, 2010)
- [x] other : Nelson Testing Laboratories (April 18, 2013)

State DOT Approvals, (current documentation required):

ID, MO, NY, OR, PA, RI

Sample submitted: [ ] yes [x] no [ ] n/a | Materials Safety Data Sheets (MSDS): [x] yes [ ] no [ ] n/a

Notes/Additional Comments

A sample is available upon request at no cost to the DOT or customer.

*Currently under test through NTPEP for lab and field evaluation.

This Form #595 is updated as of 2/23/2015.