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SECTION 07 18 70

FIRE RATED TRAFFIC COATING SYSTEM

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**PART 1 - GENERAL**

1.1 SUMMARY

- A. Section Includes: Provide traffic-bearing, fluid applied, waterproof coating with accessories as required for complete weather-tight traffic coating with one-hour fire rating.
- B. Related Sections:
  - 1. Section 07 14 00: Hot fluid applied waterproofing at decks with surfacing.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's literature including recommendations for surface conditioner, elastic flashing, joint cover sheet and crack sealants, and temperature range for application of traffic coating.
- B. Samples: Submit fully cured exposed finish materials in colors selected, with aggregate topping.
- C. Manufacturer Certifications:
  - 1. Installer: Submit certification indicating Installer is an approved applicator.
  - 2. Materials: Submit certification indicating materials comply with Contract Documents and are suitable for applications indicated.
  - 3. Manufacturer's Representative: Submit manufacturer's representative's field report indicating traffic coating has been installed in accordance with manufacturer's recommendations and installation instructions.
- D. Maintenance Instructions: Submit manufacturer's maintenance instructions.

1.3 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to finish material pollution control for paints and coatings.
- B. Installer Qualifications: Firm with minimum five years successful experience in application of traffic topping on projects of comparable size and acceptable to traffic coating manufacturer.
- C. Pre-Installation Meeting: Convene not less than one week prior to commencing work of this section. Require attendance of parties directly affecting work of this section.
  - 1. Review installation procedures and coordination required with related work.

**1.4 PROJECT CONDITIONS**

- A. Comply with manufacturer recommendations for site conditions. Do not apply traffic coating during inclement weather or when air temperature is below 40 degrees F.
- B. Do not apply traffic coating to damp, dirty, dusty and unsuitable surfaces.
  - 1. Allow concrete surfaces to cure minimum 28 days.
  - 2. Moisture Content: Determine substrate moisture content using methods recommended by system manufacturer.

**1.5 WARRANTY**

- A. Special Warranty: Provide for correcting failure of traffic topping to resist penetration of water, except where result of structural failures. Hairline cracking of concrete due to temperature or shrinkage is not considered structural failure.
  - 1. Provide for correcting for excessive deterioration under normal weather and traffic exposure, and from manufacturer recommended cleaning procedures.
  - 2. Warranty Period: Two years.

**PART 2 - PRODUCTS****2.1 MANUFACTURERS**

- A. Pli-Dek Systems, Inc.
- B. Substitutions: Refer to Section 01 25 00.

**2.2 MATERIALS**

- A. System Requirements: Provide traffic-bearing, fluid applied, waterproof coating with accessories.
- B. Regulatory Requirements:
  - 1. Fire Ratings: Provide Underwriters Laboratories listed products with Class A rating for roofing assemblies, based on ASTM E108.
    - a. Provide system rated for 1 hour fire rated assembly with IIC System No.
  - 2. Volatile Organic Compound (VOC) Emissions: Comply with applicable requirements limiting volatile organic compound (VOC) emissions.
    - a. Comply with applicable Air Quality Management District limitations for volatile organic compound (VOC) emissions.
  - 3. Slip Resistance: Comply with California Building Standards Code and Americans with Disabilities Act (ADA) Standards for non-slip surfaces.
    - a. Provide materials tested under ASTM D2047, James Slip Test with not less than 0.6 rating.

- C. Traffic Coating Systems: Provide following systems.
  - 1. Plywood Decks: Pli-Dek/ICC-ES ESR-2097 System.
  - 2. Color and Pattern: As indicated, as directed by Architect where not otherwise indicated.
- D. Surface Conditioner: Primer compatible with membrane compound; as recommended by traffic coating manufacturer.
- E. Joint and Crack Sealant: As recommended by traffic coating manufacturer.
- F. Non-Slip Aggregate: Manufacturer's standard aggregate of size and gradation recommended for application indicated.
- G. Accessories: Types recommended by traffic coating manufacturer to ensure complete, watertight installation.

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Examine surfaces and conditions affecting traffic coating.
- B. Beginning installation indicates acceptance of surfaces and conditions.

#### **3.2 PREPARATION**

- A. Ensure drains, sleeves, curbs and projections which pass through traffic coating are properly and rigidly installed.
- B. Ensure surfaces are free of cracks, depressions, waves and projections which may be detrimental to proper installation of traffic coating; repair surfaces as required.
- C. Seal cracks and joints with recommended backup material and sealant; ensure proper depth-width ratio as recommended by sealant manufacturer.
  - 1. Rout or saw-cut cracks exceeding 1/16" wide and fill with sealant.
- D. Clean surfaces of dust, dirt and foreign matter detrimental to proper installation of traffic coating.
- E. Metal Surfaces: Remove contaminants that may adversely affect adhesion or performance of traffic coating; apply metal primer.
- F. Use drop cloths or masking to protect adjacent surfaces; close off drains to prevent spillage and migration of materials into drains.

**3.3 APPLICATION**

- A. Apply traffic coating in accordance with manufacturer's recommendations and installation instructions.
  - 1. Apply primer/surface conditioner to surfaces indicated to receive traffic coating.
- B. Apply and spread traffic coating to thickness recommended by manufacturer for specific application indicated.
- C. Seal items projecting through traffic coating.
- D. After complete installation, close off area to prevent unauthorized traffic or work over traffic coating.

**3.4 SITE QUALITY CONTROL**

- A. Site Tests: Test traffic coating with 2" depth of water maintained for 24 hours; do not overload structure, if necessary, section off areas as approved by Architect.
  - 1. Repair leaks revealed by examination of substructure and repeat test until no leakage is observed.
- B. Manufacturer's Field Services: Manufacturer's representative to inspect traffic coating on regular basis and provide certification traffic coating has been installed in accordance with manufacturer's recommendations.

**END OF SECTION**