**SECTION 07570**

**Dex-Flex Waterproof Traffic Coating System**

**PART 1.00 ‑ GENERAL**

**1.01 GENERAL REQUIREMENTS**

 A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

**1.02 WORK INCLUDED**

 A. Work of this Section includes all labor, materials, equipment and services necessary to complete the waterproof deck system as scheduled on the drawings and/or specified herein.

**1.03 RELATED WORK**

 A. Concrete ‑ Section 03300.

 **(Note to Specifier: Concrete slab should be either water cured or cured using sodium silicate curing compounds only. Other types of curing compounds are generally not acceptable. Concrete should be cured for a minimum of 28 days with a maximum moisture content of 7% per ASTM F1869. Concrete substrate should meet or exceed ACI 302 or ACI 318 depending on design considerations. Concrete should be pitched for drainage.**

 B. Drains ‑ Division 15.

 **(Note to Specifier: Drains, clean‑outs, etc. should be of the "floor‑flange" type as manufactured for use with composition substrates by most major drain manufacturers. Drain flange shall be finished with substrate. Bi-Level drains shall be used with mortar bed installations)**

 C. Insulation, vapor barrier and protective waterproofing

 **(Consult Crossfield Products Corp. for specific recommendation)**

 D. Sheet metal flashing

 **(Note to Specifier: Sheet metal flashing shall be minimum 26 gauge galvanized. All joint or seams shall be overlapped approximately every 3 inches and caulked with Dex-O-Tex Elastatex 500 flashing paste or approved equal.)**

 E. Slope for drainage

 **(Note to Specifier: Allow minimum 1/4 inch per foot slope to drain. This can be provided for in the substrate or by application of Dex-O-Tex A-81 or High Strength Mortar Underlayment. Care must be taken to provide adequate elevation at thresholds to provide proper slope to drain.)**

**1.04 SUBMITTALS**

 A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

 B. Product Data: Submit manufacturer's technical data sheet.

 C. LEED Submittals:

1. Product Data for Credit MR 4.1 and Credit MR 4.2: For products having recycled content, submit documentation indicating percentages by weight of postconsumer and preconsumer recycled content.

 a. Include statement indicating costs for each product having recycled content.

 b. Include LEED Product Information Form for LEED Credits MR 4.1 and 4.2.

 2. Product Data for Credit EQ 4.2: For field applied, interior, paints coatings and primers, include printed statement of VOC content indicating compliance with Credit requirements.

 a. Include LEED Product Information Form for LEED Credit EQ 4.2.

 3. Provide additional documentation for products as required to achieve each Credit(s).

 D. Samples for initial selection purposes in form of manufacturer's recommended installation procedures for specific application parameters.

 E. Maintenance Instructions: Submit manufacturer's written instructions for recommended maintenance practices.

 **1.05 QUALITY ASSURANCE**

 A. Installer Qualifications: Engage an experienced installer who has a minimum of 5 years experience installing similar materials, and who is certified as factory trained by manufacturer of primary materials. Contractor must demonstrate they are qualified in the installation of waterproof deck materials types similar to those specified for this Project and who offers a joint labor and material warranty with manufacturer of primary materials. **Contact Brandon Carpenter for Dex-O-Tex Applicators and other information: Phone: 619-865-0479 or Email:** **brandonc@cpcmail.net****.**

 B. Single‑Source Responsibility: Obtain waterproof traffic coating membrane materials, including primers, underlayments, copolymer, as well as protective coatings and wearing surface, and finish or sealing coats if required, from a single manufacturer.

 C. Pre-Qualified Materials: Submit any request for alternative products for review two weeks prior to bid date. Any request for alternate products received after this date will not be considered.

**1.06 DELIVERY, STORAGE AND HANDLING**

 A. Deliver materials in original packages and containers with seals unbroken and bearing manufacturer's labels containing brand name and directions for storage and mixing with other components.

 B. Comply with manufacturer's directions for materials storage to prevent deterioration from moisture, heat, cold, direct sunlight, or other detrimental effects.

**1.07 PROJECT CONDITIONS**

 A. Environmental Conditions: Comply with waterproof deck system manufacturer's directions for maintenance of ambient and substrate temperature, moisture, humidity, ventilation, and other conditions required to execute and protect work.

**1.08 WARRANTY**

 A. Provide a two-year joint manufacturer installer warranty.

**PART 2.00 PRODUCTS**

**2.01 MATERIALS**

A. Basis of Design: Waterproof traffic coating system shall be Dex‑O‑Tex Dex-Flex for concrete as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Cibolo, Texas.

B. Primer shall be Dex-O-Tex VL Primer as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Cibolo, Texas.

C. Waterproof membrane shall be Dex-O-Tex Cemceil as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Cibolo, Texas.

D. Detail membrane shall be Dex-O-Tex Barrier-Guard with fabric reinforcement as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Cibolo, Texas.

F. Texture coats shall be Dex-O-Tex Resistite as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Cibolo, Texas.

G. Color sealer shall be Dex-O-Tex AJ-44 as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Cibolo, Texas.

**2.02 PROPERTIES**

 A. Membrane Physical Properties:

 Provide a waterproof deck system that meets or exceeds the listed minimum physical property requirements when tested according to the referenced standard test methods in parentheses.

 1. **TYPICAL PHYSICAL PROPERTIES at 75oF (24oC)**

**Waterproofness** No Passage of Water Resistance to passage

when Subject to 27.7” head of water (Hydrostatic pressure of 1 lb./ft.) for one month.

**Elongation**  ASTM D638 580%

**Tensile Strength** ASTM D638 345 psi

**Adhesion in Peel to Concrete** ASTM C794 8.3 lbs

(pounds per inch width)

**Moisture Vapor Transmission** ASTM E96 2.04 gr

**Crack-Bridging**  ASTM E836, 1/8” opening no rupture

**Hydrostatic Resistance** ASTM D751 Passes Procedure

**Permeability** ASTM E96 0.13 perm/in

**Antimicrobial Resistance** ASTM G21 Passes

 B. IAPMO and ANSI Compliance Requirement:

Copolymer waterproofing membrane shall haveIAPMO (International Association of Plumbing and Mechanical Officials) and ANSI (American National Standards Institute compliance.

1. IAPMO File No. Certification
2. ANSI A118.10-99 manufactured compliance

**PART 3.00 ‑ EXECUTION**

**3.01 CONTRACTOR QUALIFICATIONS**

 A. Waterproof traffic coating system shall be installed in strict accordance with the manufacturer's recommendations by a contractor trained and approved by the materials manufacturer and has a minimum five years experience in the application of similar materials.

**3.02 INSPECTION**

 A. Examine the areas and conditions where the waterproof traffic coating system is to be installed and notify the Architect of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected by the Contractor in a manner acceptable to the Architect.

 B. Evaluate level of moisture in the substrate to determine that moisture levels are acceptable for application of specified waterproof deck system.

 **303 PREPARATION**

 A. Substrate: Perform surface preparation in accordance with ICRI Guideline No. 03732 with CSP of 2 to 3 and cleaning procedures according to manufacturer's instructions for particular substrate conditions involved, and as specified. Provide clean, dry and neutral substrate for application of waterproof deck covering.

 B. Materials: Pre-mix aqueous copolymer per manufacturer's instructions. Prepare materials according to waterproof traffic coating system manufacturer's instructions.

**3.04 FIELD CONDITIONS**

 A. Waterproof traffic coating system shall not be applied during either freezing or inclement weather, or when such weather can logically be expected.

**3.05 APPLICATION**

 A. General: Apply each component of waterproof traffic coating according to manufacturer's directions to produce a uniform monolithic surface of thickness indicated.

1. Primer Coat: Apply the primer in the selected color as recommended. Allow to dry.
2. Detail Membrane: Apply eight inch wide detail membrane with fabric reinforcement over joints, cracks, ninety degree changes of elevation and transitions. Allow to dry.
3. Membrane: Trowel or squeegee apply two coats of the primary membrane. Allow to dry between coats and before recoating.
4. Texture Coats: Apply two cementious texture coats to create the approved finish texture. Allow to dry between coats and before recoating.
5. Apply two sealer coats in the selected color as recommended to produce a surface matching the submittal sample and project mock-up samples. Allow to dry between coats.

 **3.04 CURING, PROTECTION AND CLEANING**

 A. Cure waterproof traffic deck system materials according to manufacturer's directions, taking care to prevent contamination during application stages and before completing curing process. Close application area for a minimum of 24 hours.

**END OF SECTION**

DEX-O-TEX PRODUCT LINE 3000 E. Harcourt Street 128 Industrial Drive

Crossfield Products Corp. Rancho Dominguez, CA 90221 Cibolo, TX 78108

www.dexotex.com Tel: (310) 886-9100 Tel: (210) 888-0449

 Fax: (310) 886-9119 Fax: (210) 245-0659