SECTION 09720 EPOXY MOSAIC COMPOSITION FLOORING Dex-O-Tex Cheminert Terracolor

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 epoxy mosaic composition flooring and integral base as scheduled on the drawings and/or specified herein.

1.03 RELATED WORK

A. Concrete - Section 03300.

(Note to Specifier: Concrete 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.)

B. Floor drains - Division 15.

(Note to Specifier: Floor drains, clean-outs, etc. should be of the "floor-flange" type as manufactured for use with composition floors by most major drain manufacturers.)

C. Moisture Vapor Barrier – Division 7

(Note to Specifier: Moisture Vapor Barrier should be incorporated if moisture vapor transmission rates are above recommended levels. 3 pounds of moisture vapor transmission per 100 square feet over a 24 hour period is the maximum acceptable level.)

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, application instructions and general recommendations for the epoxy mosaic composition flooring specified herein.

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).

- Samples for initial selection purposes in form of manufacturer's color charts showing full range of colors and finishes available.
 - 1. Submit 2-1/2" x 4" samples of color chips from color chart selection designated by the Architect.
- E. Material certificates signed by manufacturer certifying that the epoxy mosaic composition flooring complies with requirements specified herein.
- F. Maintenance Instructions: Submit manufacturer's written instructions for recommended maintenance practices.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer or applicator who has specialized in installing resinous flooring types similar to that required for this Project and who is acceptable to manufacturer of primary materials.
- B. Single-Source Responsibility: Obtain epoxy mosaic composition flooring materials, including primers, resins, hardening agents, colored aggregates and finish or sealing coats, from a single manufacturer.
- C. Qualified Materials: Request for material approvals for any products other than the specified products must be submitted to the architect two weeks prior to the bid, including complete application specification, physical characteristics, and chemical resistance data. Any request after this date will not be accepted. Failure of performance requires immediate removal and replacement of unapproved substituted material with those originally specified at no cost to the owner, architect, construction manager, or general contractor.

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. Store materials to comply with manufacturer's directions to prevent deterioration from moisture, heat, cold, direct sunlight, or other detrimental effects.

1.07 PROJECT CONDITIONS

- A. Environmental Conditions: Comply with epoxy mosaic composition flooring manufacturer's directions for maintenance of ambient and substrate temperature, moisture, humidity, ventilation, and other conditions required to execute and protect Work.
- B. Lighting: Permanent lighting will be in place and working before installing resinous flooring.

PART 2.00 - PRODUCTS

2.01 MATERIALS

A. Troweled epoxy mosaic composition flooring shall be Dex-O-Tex Cheminert Terracolor with chemical resistant top finish as manufactured by Crossfield Products Corp. in Rancho Dominguez, California and Roselle Park, New Jersey.

2.02 PROPERTIES

A. Colors: As indicated, or if not otherwise indicated, as selected by Architect from manufacturer's

standard colors.

B. Physical Properties:

Provide flooring system that meet or exceed the listed minimum physical property requirements when tested according to the referenced standard test method in parentheses.

Thickness
Compressive Strength (ASTM C579)8,576 psi.
Tensile Strength (ASTM C307)
Flexural Strength (ASTM C580)4,300 psi.
Surface Hardness (ASTM D2240)
Abrasion Resistance (ASTM D1044)
Indentation (MIL-PRF-3134)>1.0 %
Impact Resistance (Gardner Impact Tester)
Adhesion (A.C.I. Comm. No. 503.1)>400 psi (100% failure in concrete)
Electrical Conductivity (NFPA 56A)Di-electric
Flammability (ASTM E648/NFPA 253/FTMS 372Greater than 1.07 watts/cm ²

2.03 SUPPLEMENTAL MATERIALS

- A. Waterproofing Membrane: Type recommended or produced by manufacturer of epoxy mosaic composition flooring system for type of service and floor condition indicated. (Note to Specifier: The use of waterproof membrane is optional and is generally confined to suspended floors and in rooms having floor drains and subject to very wet spillage and service. All areas requiring membrane treatment should be clearly shown on plans and finish schedules.)
- B. Anti-Microbial Additive: Incorporate antimicrobial chemical additive to prevent growth of most bacteria, fungi, algae and actinomycetes. (Note to Specifier: The use of antimicrobial additive is optional. Its use poses no health hazard.)

PART 3.00 - EXECUTION

3.01 INSPECTION

A. Examine the areas and conditions where the epoxy mosaic composition flooring 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. Test for moisture vapor transmission. Notify Architect immediately if moisture vapor transmission exceeds manufacturers recommended levels.

3.02 PREPARATION

- A. Substrate: Perform preparation and cleaning procedures according to flooring manufacturer's instructions for particular substrate conditions involved, and as specified. Provide clean, dry, and neutral substrate for flooring application.
- B. Concrete Surfaces: Shot-blast, acid etch or power scarify as required to obtain optimum bond of flooring to concrete. Remove sufficient material to provide a sound surface free of laitance, glaze, efflorescence, and any bond-inhibiting curing compounds or form release agents. Remove grease, oil, and other penetrating contaminates. Repair damaged and deteriorated concrete to acceptable condition. Leave surface free of dust, dirt, laitance, and efflorescence.
- C. Materials: Mix resin hardener and aggregate when required, and prepare materials according to flooring system manufacturer's instructions.

3.03 APPLICATION

- A. General: Apply each component of epoxy mosaic composition flooring system according to manufacturer's directions to produce a uniform monolithic flooring surface of thickness indicated.
- B. Bond Coat: Apply bond coat over prepared substrate at manufacturer's recommended spreading rate.
- C. Body Coat: Over primer, trowel apply epoxy mortar mix at nominal 1/4-inch thickness; hand or power trowel. Allow to cure before proceeding.
- D. Grout Coats: Apply two coats of grout. Sand and inspect the surface for consistency.
- E. Finish or Sealing Coats: After grout coats have cured sufficiently, apply finish coats of type recommended by flooring manufacturer to produce finish matching approved sample and in number of coats and spreading rates recommended by manufacturer.
 - 1. Final finish coat shall be in color and skid retardant profile as approved by the Architect.
 - 2. Finished floor shall be 1/4" thick, uniform in color and free of trowel marks.
- F. Cove Base: Apply cove base mix to wall surfaces at locations shown to form cove base height of 4 inches unless otherwise indicated. Follow manufacturer's instructions and details including taping, mixing, priming, troweling, sanding, and top-coating of cove base.

3.04 CURING, PROTECTION AND CLEANING

- A. Cure epoxy mosaic composition flooring 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.
- B. Protect finished floor with wax paper. Use Masonite, if rolling load traffic exists.
- C. Clean with manufacturer recommended cleaner.

END OF SECTION

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