

BuildingName
The Description of the Project
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SPECIFICATION DIVISION 9

NUMBER SECTION DESCRIPTION

DIVISION 09 FINISHES

SECTION 096723 - RESINOUS FLOORING

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DIVISION 09 FINISHES
SECTION 096723 - RESINOUS FLOORING

THIS SECTION IS LIMITED TO COMMERCIAL-TYPE HIGH-TEMPERATURE AND CHEMICALLY-RESISTANT SYSTEM. CONSIDER USING AIA MASTERSPEC SECTION OF THE SAME NAME AND NUMBER FOR DECORATIVE FLOORS, FACTORY FLOORS AND OTHER SIMILAR APPLICATIONS.

PART 1 - GENERAL

1.1 SUMMARY

- A. Extent of seamless, resinous flooring is shown and scheduled on Drawings.
- B. Type of seamless resinous flooring is high-build, temperature-resistant, chemically resistant, trowel-down epoxy mortar type with compatible finish coat.

1.2 SUBMITTALS

- A. Manufacturer's product literature indicating compliance with requirements.
- B. Installation instructions for each primary product and accessory.
- C. Samples for Initial Selection: Submit 4-inch square sample of actual flooring material in color proposed to match indicated color.
- D. Samples for Verification: Submit 4-inch square sample of actual flooring material with final approved color adjustments.
- E. Qualification Data for Individuals and Firms listed in Quality Assurance Article.

INCLUDE BELOW FOR ALL PROJECTS.

- F. Affidavits of Compliance to be included in final inspection manual:
 - 1. Provide manufacturer's letter of certification showing compliance with finish testing and classification requirements referenced by current adopted NFPA 101 "Life Safety Code".
 - 2. Letter shall include project number, project name, and building name.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Installer having not less than 5 years of experience installing comparable flooring systems; and approved by resinous flooring manufacturer for application indicated.
- B. Design Criteria: The Project has been designed using Stonclad HT/Stonkote HT4 by Stonhard, Inc. Fully equivalent products of other listed, approved manufacturers will be considered, provided deviations in product qualities are minor and do not change the performance of the flooring system as judged by the Architect.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Manufacturer: Subject to compliance with requirements, provide products of one of the following:

Dex-O-Tex; Crossfield Products Co.
Epoxy-Tech, Inc.
Mastertop; Master Builders Technologies Ltd.
Stonclad; Stonhard Inc. USA

2.2 SEAMLESS RESINOUS FLOORING

- A. Mortar: Seamless, built-up, troweled-down, thermally- and chemically-resistant three-component epoxy resin-based flooring system. Provide mortar materials with performance equal or better than the following values for each indicated test method:

1. Compressive Strength: 11,500 psi at 7 days; ASTM C 579.
2. Tensile Strength: 2,200 psi; ASTM C 307.
3. Flexural Strength: 5,000 psi; ASTM D 580.
4. Flexural Modulus of Elasticity: 17,000,000 psi; ASTM D 790..
5. Hardness: 87-90; ASTM D2240/Shore D Durometer.
6. Bond Strength: Greater than 400 psi (100 percent concrete failure); ACI Committee 503/PP.1139-1141.
7. Indentation: None; MIL-D-3134F.
8. Abrasion Resistance: 0.18 gm max. weight loss; ASTM D 4060, CS-17 wheel.
9. Flammability: Self-extinguishing, extent of burning not more than 0.25 inches; ASTM D 635,
10. Thermal Coefficient of Linear Expansion: 0.00002-in/in deg C; ASTM E 831.
11. Water Absorption: 0.2 percent; ASTM C 413.
12. Heat Resistance Limitation: 200 deg F for continuous exposure; 250 deg F for intermittent exposures.

- B. Finish Coating: Thermally- and chemically-resistant 100 percent solids, two-component epoxy resin coating compounded to compliment the performance of the mortar material.

1. Temperature Limitations: Not less than that specified for mortar material.
2. Chemical-resistance: Not less than that specified for mortar material.
3. Color: Equivalent to Stonhard, Inc. "Brick Red."

2.3 ACCESSORIES

- A. Primer: Two-component epoxy resin primer compounded for the application indicated.
- B. Cove Cap: Manufacturer's standard cove top cap to provide a neat, level, and durable finished cove installation.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prepare substrates to condition recommended by seamless resinous flooring manufacturer for application indicated. Remove adhesives, sealer, wax, and dirt; and scarify substrate as follows:
 - 1. At minimum, shot-blast all existing floor surfaces using power-driven, metal-shot-recycling equipment. Shot-blast or otherwise etch or scarify new concrete floor surfaces if required to bring surface into compliance with manufacturer's recommendations.
 - 2. Sand-blasting is not permitted. Rotating-blade type scarifiers are not permitted.
- B. Upon completion of floor preparation work, obtain and submit to the Architect, written approval of existing substrate conditions by an authorized representative of the resinous flooring manufacturer.
- C. Obtain Architect's written approval prior to beginning subsequent application work.

3.2 APPLICATION

- A. Application, General: Provide final installation with no seams, joints, or cracks. Provide seamless transition between adjoining rooms. Extend base up walls and up base of walls to provide an uninterrupted cove base around room perimeter. Apply resinous flooring in pit, covering sides and bottom.
- B. Prime surfaces using manufacturer's recommended penetrating primer for indicated application. Apply primer in strict adherence to manufacturer's printed instructions.
- C. Mortar Installation: Blend materials in accordance with manufacturer's recommendations. Screed-apply 5/16-inch layer of mortar and trowel finish with steel-blade power trowels. Routinely clean and dry trowel blades in accordance with manufacturer's instructions. Trowel mortar a dense, hard surface with minimal porosity.
 - 1. Install surface as level as practicable using laser lines or other method acceptable to Architect.
 - 2. Cove Bases: Install cove bases at each wall. Use manufacturer's cove material compounded for the purpose. Cap cove base with manufacturer's standard cove cap strip.
 - a. Cove Height: 6-inches.
 - 3. Pitch 1/8-inch to drains within a 24-inch radius of each floor drain, except where concrete substrate is sloped to drain.
- D. Mortar Leveling: Allow mortar to cure thoroughly. Flood surface lightly to reveal local low points ("birdbaths") and similar imperfections. Mark low points and dry and prepare surface to receive additional mortar in accordance with manufacturer's directions. Apply additional mortar materials as required to level surface.

E. Coating Application: Apply coating material with a rubber squeegee. Immediately after application, use a short-nap roller to remove squeegee lines and smooth out the coat. Apply in 4- to 6-mil thick layers and allow to thoroughly dry before subsequent applications.

1. Apply material to a total built-up thickness of not less than 12-mils.
2. Finish flooring surface with non-slip roughened texture.

3.3 CLEANING AND PROTECTION

A. Clean floors after installation in accordance with flooring manufacturer's written instructions. Do not polish floors.

END OF SECTION 096723