

SECTION 09670
RESINOUS FLOORING

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
 - 1. Resinous flooring with epoxy body coats.
- B. Related Work: The following items are not included in this Section and will be performed under the designated Sections:
 - 1. Section 07920 - JOINT SEALANTS for sealants installed at joints in resinous flooring systems.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated. Include manufacturer's technical data, application instructions, and recommendations for each resinous flooring component required.
- B. Samples for Verification: For each resinous flooring system required, 6 inches square, applied to a rigid backing by Installer for this Project.
- C. Material Certificates: For each resinous flooring component, signed by manufacturer.
- D. Maintenance Data: For resinous flooring to include in maintenance manuals.
- E. Test Results: For field testing of substrate, signed by installer.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer (applicator) who is experienced in applying resinous flooring systems similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance, and who is acceptable to resinous flooring manufacturer.
 - 1. Engage an installer who employs only persons trained and approved by resinous flooring manufacturer for applying resinous flooring systems indicated.

- B. Source Limitations: Obtain primary resinous flooring materials, including primers, resins, hardening agents, grouting coats, and topcoats, through one source from a single manufacturer. Provide secondary materials, including patching and fill material, joint sealant, and repair materials, of type and from source recommended by manufacturer of primary materials.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original packages and containers, with seals unbroken, bearing manufacturer's labels indicating brand name and directions for storage and mixing with other components.
- B. Store materials to prevent deterioration from moisture, heat, cold, direct sunlight, or other detrimental effects.

1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Comply with resinous flooring manufacturer's written instructions for substrate temperature, ambient temperature, moisture, ventilation, and other conditions affecting resinous flooring application.
- B. Lighting: Provide permanent lighting or, if permanent lighting is not in place, simulate permanent lighting conditions during resinous flooring application.
- C. Close spaces to traffic during resinous flooring application and for not less than 24 hours after application, unless manufacturer recommends a longer period.

PART 2 - PRODUCTS

2.1 RESINOUS FLOORING

- A. Products, Water Treatment Room: Subject to compliance with requirements, provide one of the following:
 - 1. Crossfield Products Corp., Dex-O-Tex.; Cheminert HD Slurry, medium texture.
 - 2. Dur-A-Flex, Inc.; Shop Floor, orange peel texture.
 - 3. Stonhard, Inc.; Stonshield GS, texture 2 /3.Note: See Finish scheme on drawings for color selection.
- B. Products, Medical Waste Room: Subject to compliance with requirements, provide one of the following:
 - 1. Crossfield Products Corp., Dex-O-Tex.; Cheminert HD Slurry, smooth texture.
 - 2. Dur-A-Flex, Inc.; Dur-A-Guard S /L, orange peel texture.

3. Stonhard, Inc.; Stonshield GS, texture 4 /5.

Note: See Finish scheme on drawings for color selection.

- C. Products, Janitor Closet: Subject to compliance with requirements, provide one of the following:

1. Crossfield Products Corp., Dex-O-Tex.; Cheminert HD Slurry, medium texture.
2. Dur-A-Flex, Inc.; Shop Floor, orange peel texture.
3. Stonhard, Inc.; Stonshield GS, texture 2 /3.

Note: See Finish scheme on drawings for color selection.

- D. Products, Second Floor Treatment Room: Subject to compliance with requirements, provide one of the following:

1. Crossfield Products Corp., Dex-O-Tex.; Colorflake L 100% Broadcast, over Barrier-Guard waterproofing membrane.
2. Dur-A-Flex, Inc.; Cryl-A-Chip, over Elast-O-Coat waterproofing membrane.
3. Stonhard, Inc.; Stontec ERF, over Stonproof ME7 waterproofing membrane.

Note: See Finish scheme on drawings for color selection.

- E. System Characteristics:

1. Color and Pattern: Match Architect's sample
2. Wearing Surface: Textured for slip resistance, unless indicated otherwise.
3. Integral Cove Base: 4 inches, unless indicated otherwise.
4. Overall System Thickness: 1/8 inch.

- F. System Components: Manufacturer's standard components that are compatible with each other and as follows:

1. Body Coat(s):
 - a. Resin: Epoxy
 - b. Formulation Description: 100 percent solids.
 - c. Application Method: Flat squeegee and backroll with broadcast aggregate
 - 1) Number of Coats: Three.
 - d. Aggregates: Colored quartz or vinyl, as specified.
2. Primer: Type recommended by manufacturer for substrate and body coat(s) indicated, 100% solids.
3. Waterproofing Membrane: Type recommended by manufacturer for substrate and primer and body coat(s) indicated, 100% solids.
4. Topcoat: Sealing or finish coat(s).

- a. Resin: Epoxy or urethane, as specified.
- b. Formulation Description: 100 percent solids
- c. Type: Clear
- d. Finish: Matte.
- e. Number of Coats: Two.

2.2 ACCESSORY MATERIALS

- A. Patching and Fill Material: Resinous product of or approved by resinous flooring manufacturer and recommended by manufacturer for application indicated.
- B. Joint Sealant: Type recommended or produced by resinous flooring manufacturer for type of service and joint condition indicated.

PART 3 - EXECUTION

3.1 PREPARATION

- A. General: Prepare and clean substrates according to resinous flooring manufacturer's written instructions for substrate indicated. Provide clean, dry, and neutral Ph substrate for resinous flooring application.
- B. Concrete Substrates: Provide sound concrete surfaces free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, and other contaminants incompatible with resinous flooring.
 - 1. Roughen concrete substrates as follows:
 - a. Shot-blast surfaces with an apparatus that abrades the concrete surface, contains the dispensed shot within the apparatus, and recirculates the shot by vacuum pickup.
 - b. Comply with ASTM C 811 requirements, unless manufacturer's written instructions are more stringent.
 - 2. Repair damaged and deteriorated concrete according to resinous flooring manufacturer's written recommendations.
 - 3. Verify that concrete substrates are dry.
 - a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with application only after substrates have maximum moisture-vapor-emission rate as required by the manufacturer.
 - b. Perform plastic sheet test, ASTM D 4263. Proceed with application only after testing indicates absence of moisture in substrates.
 - c. Perform additional moisture tests recommended by manufacturer. Proceed with application only after substrates pass testing.

4. Verify that concrete substrates have neutral pH and that resinous flooring will adhere to them. Perform tests recommended by manufacturer. Proceed with application only after substrates pass testing.
- C. Resinous Materials: Mix components and prepare materials according to resinous flooring manufacturer's written instructions.
- D. Use patching and fill material to fill holes and depressions in substrates according to manufacturer's written instructions.
- E. Treat control joints and other nonmoving substrate cracks to prevent cracks from reflecting through resinous flooring according to manufacturer's written recommendations.

3.2 APPLICATION

- A. General: Apply components of resinous flooring system according to manufacturer's written instructions to produce a uniform, monolithic wearing surface of thickness indicated.
 1. Coordinate application of components to provide optimum adhesion of resinous flooring system to substrate, and optimum intercoat adhesion.
 2. Cure resinous flooring components according to manufacturer's written instructions. Prevent contamination during application and curing processes.
 3. At substrate expansion and isolation joints, provide joint in resinous flooring to comply with resinous flooring manufacturer's written recommendations.
 - a. Apply joint sealant to comply with manufacturer's written recommendations.
- B. Apply primer over prepared substrate at manufacturer's recommended spreading rate.
- C. Apply waterproofing membrane, where indicated, in manufacturer's recommended thickness.
 1. Apply waterproofing membrane to integral cove base substrates.
- D. Apply reinforcing membrane to substrate cracks.
- E. Integral Cove Base: Apply cove base mix to wall surfaces before applying flooring. Apply according to manufacturer's written instructions and details including those for taping, mixing, priming, troweling, sanding, and topcoating of cove base. Round internal and external corners.
- F. Apply self-leveling slurry body coat(s) in thickness indicated for flooring system.

1. Broadcast aggregates and, after resin is cured, remove excess aggregates to provide surface texture indicated.
- G. Apply troweled or screeded body coat(s) in thickness indicated for flooring system. Hand or power trowel and grout to fill voids. When cured, sand to remove trowel marks and roughness.
- H. Apply grout coat, of type recommended by resinous flooring manufacturer to fill voids in surface of final body coat and to produce wearing surface indicated.
- I. Apply topcoat(s) in number of coats indicated for flooring system and at spreading rates recommended in writing by manufacturer.

3.3 CLEANING AND PROTECTING

- A. Protect resinous flooring from damage and wear during the remainder of construction period. Use protective methods and materials, including temporary covering, recommended in writing by resinous flooring manufacturer.

END OF SECTION