

SECTION 09 67 26 - EPOXY FLOORING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes epoxy flooring systems.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include manufacturer's technical data, application instructions, and recommendations for each epoxy flooring component required.
- B. Samples for Initial Selection: For each type of exposed finish required.
- C. Samples for Verification: For each epoxy flooring system required, 6 inches square, applied to a rigid backing by Installer for this Project.

1.4 INFORMATIONAL SUBMITTALS

- A. Installer Certificates: Signed by manufacturer certifying that installers comply with specified requirements.
- B. Material Certificates: For each epoxy flooring component, from manufacturer, certifying materials comply with specified requirements.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For epoxy flooring to include in maintenance manuals.

1.6 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Review specification requirements.
 - 2. Review concrete slab moisture content.
 - 3. Confirm specification requirements for floor flatness conform to project requirements on new concrete slabs and review floor leveler installation on existing concrete slabs.
 - 4. Review installation procedures.
 - 5. Review project schedule.
 - 6. Review floor protection measures to be implemented after installation.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.
- B. Engage an installer who is certified in writing by epoxy flooring manufacturer as qualified to apply epoxy flooring systems indicated.
- C. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Apply full-thickness mockups on 96-inch- square floor area selected by Architect.
 - 2. Simulate finished lighting conditions for Architect's review of mockups.
 - 3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - 4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.8 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.

1.9 FIELD CONDITIONS

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

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain primary epoxy flooring materials, including primers, resins, hardening agents, grouting coats, and topcoats, from single source from single manufacturer. Obtain secondary materials, including patching and fill material, joint sealant, and repair materials, of type and from manufacturer recommended in writing by manufacturer of primary materials.

2.2 EPOXY FLOORING

- A. Epoxy Flooring System: Dense, liquid rich, self-priming textured monolithic floor surfacing designed to produce a seamless floor and integral cove base.
 - 1. Basis of Design: Subject to compliance with requirements, Epoxy Flooring incorporated into the project shall be based on systems as follows:

- a. Stonhard, "StonClad UT."
- 2. Acceptable Manufacturers: None.
 - a. Sherwin Williams, General Polymers; "Fastop 12S."
- B. System Characteristics:
 - 1. Color and Pattern: As selected by Architect from manufacturer's full range.
 - 2. Wearing Surface: Light Texture.
 - 3. Overall System Thickness: 1/4 inch.
- C. System Physical Properties: Provide epoxy flooring system with the following minimum physical property requirements when tested according to test methods indicated:
 - 1. Compressive Strength: 7,700 psi minimum according to ASTM C 579.
 - 2. Tensile Strength: 1,000 psi minimum according to ASTM C 307.
 - 3. Flexural Modulus of Elasticity: 2×10^6 psi minimum according to ASTM C 580.
 - 4. Water Absorption: 1 percent maximum according to ASTM C 413.
 - 5. Shrinkage: 1.1×10^{-5} in/in°F percent maximum according to ASTM C 531.
 - 6. Impact Resistance: Greater than 160 in/lbs, according to ASTM D 2794.
 - 7. Abrasion Resistance: 0.05 gm maximum weight loss according to ASTM D 4060.
 - 8. Hardness: 80 to 84, Shore D according to ASTM D 2240.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prepare and clean substrates according to epoxy flooring manufacturer's written instructions for substrate indicated. Provide clean, dry substrate for epoxy 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 epoxy flooring.
 - 1. Roughen concrete substrates as follows:
 - a. Prepare surfaces with an apparatus that abrades the concrete surface (shot-blast or diamond grinder as required), and removes all remnants of existing flooring or coating systems, 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 epoxy flooring manufacturer's written instructions.
 - 3. Verify that concrete substrates are dry and moisture-vapor emissions are within acceptable levels according to manufacturer's written instructions.
- C. Patching and Filling: Use patching and fill material to fill holes and depressions in substrates according to manufacturer's written instructions.

1. Control Joint Treatment: Treat control joints and other nonmoving substrate cracks to prevent cracks from reflecting through epoxy flooring according to manufacturer's written instructions.
- D. Epoxy Materials: Mix components and prepare materials according to epoxy flooring manufacturer's written instructions.

3.2 APPLICATION

- A. Apply components of epoxy 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 epoxy flooring system to substrate, and optimum intercoat adhesion.
 2. Cure epoxy flooring components according to manufacturer's written instructions. Prevent contamination during application and curing processes.
- B. Troweled Body Coats: Apply troweled body coats in thickness indicated for flooring system.
- C. Topcoats: Apply topcoats in number indicated for flooring system and at spreading rates recommended in writing by manufacturer and to produce wearing surface indicated.

3.3 PROTECTION

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

END OF SECTION 09 67 26