

RESINOUS FLOORING

GENERAL INFORMATION

- 1.1 Heavy duty, seamless, epoxy resin flooring and integral base, installed over waterproof membrane for use in mechanical equipment rooms.
- 1.2 Resinous Flooring System consists of elastomeric waterproof membrane; multi-coat, high-performance mortar consisting of epoxy resin, curing agent, and selected graded aggregates blended with inorganic pigments; slip-resistant, chemical-resistant, high solids epoxy top coat; and primers recommended by the manufacturer.

DESIGN REQUIREMENTS

- 2.1 Specify submission of Resinous Flooring manufacturer's printed data describing product composition and materials, physical characteristics, applicable standards, basic use and limitations, installation, and maintenance.
- 2.2 Specify submission of samples for each selected color/texture/finish.
- 2.3 Specify that applicator submit a list of comparable flooring systems, with 5-year (min.) service histories, completed by the applicator, as well as evidence of manufacturer training and approval as an installer of the manufacturer's products.
- 2.4 Specify submission of two certified copies of a report by a qualified testing agency, showing compliance of products with specified requirements. Submit installer's signed and notarized certificate stating that products used in the Project meet specified requirements.
- 2.5 Specify submission of manufacturer's printed data on flooring care and maintenance.
- 2.6 Specify the Resinous Flooring manufacturer shall be regularly engaged in the manufacture of seamless chemical-resistant flooring and waterproofing systems that have five-year (min.) domestic, in-place performance histories under conditions comparable to those at the Project.
- 2.7 Specify that Resinous Flooring installer is a manufacturer-trained, manufacturer-approved, experienced installer of seamless chemical-resistant flooring [and waterproofing systems].

DESIGN REQUIREMENTS

- 2.8 Furnish a warranty, signed by manufacturer and installer, stating that completed work satisfies Contract Document requirements and is free from defects and damage; that installed system is appropriate for intended use and will remain waterproof and damage-free under conditions of wear associated with room functions and housekeeping; that work found to be otherwise within 5 years of acceptance will be corrected at no cost to the Owner, and fees for additional services of the Architect and inspections by the manufacturer's representative, resulting from nonconforming work, shall be paid at no cost to the Owner.

CONSTRUCTION REQUIREMENTS

- 3.1 Air and substrates during application and curing shall be above the dew point and between 60 F and 90 F.
- 3.2 Air shall not be dust laden prior to or during application and curing. No dust-raising activities shall be carried on in or near work areas.
- 3.3 Substrate shall be sound, smooth, clean, dry, and free from coatings, deposits, contaminants, and defects that harmfully affect bond and cannot be removed or corrected by the extent of preparation specified in this Section. Concrete shall be lightly troweled and at least 30 days old.
- 3.4 Walls, curbs, equipment pads, sleeves, drains, anchors, and other construction that penetrates or terminates the flooring system shall be in place. Floor drains shall be manufacturer-approved recessed-flange type, set at proper levels to accommodate the flooring system.
- 3.5 Installation areas shall be free from equipment and other items that deny access to substrates.
- 3.6 Flooring system application in mechanical equipment spaces is not continuous. Apply flooring system to equipment pads first. When equipment is installed, return to the Project and complete the flooring system.
- 3.7 Check Project for conditions that affect work. Do not begin work until unsatisfactory conditions are corrected. Defects caused by unsatisfactory conditions or untimely installation shall be corrected at no cost to the Owner.
- 3.8 Substrate Conditioning: Remove oil, grease, and other contaminants by scraping or wire-brushing or abrasive blasting, and scrubbing with an industrial detergent; remove curing compounds, laitance, and other deposits that harmfully affect bond by abrasive blasting, scarifying, or etching with 10% muriatic acid; wet concrete before applying acid solution. Apply solution with a plastic sprinkling can. Agitate it with a coarse broom, but do not move spent solution from area to area.

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Allow solution to remain on the surface for about 15 minutes, then flush it off thoroughly with clean water. Repeat until the surface looks like coarse sandpaper. Allow concrete to dry.

- 3.9 Cleaning: Remove dust and other loose deposits from substrates by sweeping and vacuuming or blowing with oil-free compressed air.
- 3.10 Protecting Project Surfaces: Protect surfaces from drips, spatter, smears, spills, and overruns. Furnish galvanized pans large enough to contain mixers. Do no mixing outside of these pans. Take special care to protect metal, and adjacent and adjoining surfaces from acid attack during etching. Do not allow drains to be clogged by products of substrate conditioning and cleaning.
- 3.11 Apply all coatings in strict accordance with manufacturer's printed directions.
- 3.12 Waterproofing Membrane: Seal and coat joints, cracks, and cold joints per manufacturer's instructions. Prime substrates. Waterproof floor drain flanges, vertical surfaces of sleeves and curbs, and sides and tops of housekeeping pads. Obtain full coverage of outside corners. Avoid bridging inside corners. Carry waterproofing 6" up walls to a neat, sharp line. Prime cured membrane before applying floor coating unless the manufacturer specifically recommends otherwise.
- 3.13 Reinforced Membrane: Scrape-trowel a heavy coat of waterproofing material into substrates. Press reinforcing fabric into waterproofing. Lap seams 3" (min.). Trowel or brush fabric to smooth it and eliminate corner-bridging. Force coating through fabric and thoroughly embed fabric. Apply additional waterproofing material to fill voids and pinholes and build coating to a uniform thickness of 1/16" (min.).
- 3.14 Flooring: Completely cover waterproofing membrane. Obtain full coverage of outside corners. Form coved base, bullnose base top, rounded inside corners, and rounded outside corners. Float and trowel surface to a smooth finish, free from irregularities, dishing, trowel marks, mottling, and shading. Build up deficiencies before applying top coat. Produce a surface that does not vary from required plane more than 1/8" in 10'-0", measured by a 10-foot straight edge.
- 3.15 Top Coat: Roller-apply at least two uniform coats at 4 dry mils per coat. Use a roller with a nap that produces a lightly-textured, not slick, surface.
- 3.16 Correct nonconforming and damaged work. Replace work that cannot be corrected. Clean completed installation. Restore Project surfaces damaged or defaced by flooring application.



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REFERENCE

- 4.1 The applicable CSI Specification Section is 09 67 23