

SECTION 03315
CONCRETE FLOOR REPAIRS

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including Gen. & Supplementary Conditions & the City of Dayton Construction and Material Specifications, apply to work of this section.

DESCRIPTION OF WORK

Extent of concrete floor repair work is shown on drawings. Removal of existing tile floor and proper preparation is required prior to new floor coating system.

QUALITY ASSURANCE

Manufacturer's Qualifications: Firm regularly engaged in manufacturing concrete repair products of types required, & whose products have been in satisfactory use in similar service for not less than 10 years.

Installer's Qualifications: Firm with at least 5 years of successful installation experience on projects with work similar to that required herein.

Do not make substitutions: If specified material is not obtainable, submit proof of non-availability to Engineer, together with proposal for use of equivalent material.

Submittals: Submit shop drawings of concrete floor repair products to Engineer for approval.

Certification: Submit data substantiating that materials comply with specified requirements.

Product Data: Submit manufacturer's technical product data & installation instructions.

PART 2 - PRODUCTS

FLOOR REPAIR

Repair Mortar: SikaQuick 1000 extended with pea stone, 1-component, rapid hardening, early strength gaining, cementitious, patching material for concrete, as manufactured by Sika Corporation.

Bonding Agent: Sika Armatec 110 EpoCem, three-component, solvent free, moisture tolerant, epoxy modified, cementitious product specifically formulated as a bonding agent and anti-corrosion coating, as manufactured by Sika Corporation.

Crack Filler: Sikagard 33, 2-component, 100% solids, moisture tolerant, high-modulus, high-strength, structural, very rapid curing, smooth-paste adhesive, conforming to the current ASTM C-881, Types I and II, Grade-3, Class B/C (except for gel time), and AASHTO M-235 specifications, as manufactured by Sika Corporation.

FLOOR COATING SYSTEM

Binder Coat: Sikadur Epoxy Broadcast Overlay System using Sikadur 22 Lo-Mod, extended with Oven-Dried Silica Aggregate (30-50), 2-component, 100% solids, moisture tolerant, epoxy resin binder, conforming to the current ASTM C-881, Type III, Grade-2, Class C, and AASHTO M-235 specifications, as manufactured by Sika Corporation.

Broadcast Material: Oven-Dried Silica Aggregate (30-50).

Seal Coat: Sikagard 62, 2-component, 100% solids, moisture tolerant, epoxy resin, high-build, protective, solvent-free, colored epoxy coating, as manufactured by Sika Corporation. Color to be selected by Owner.

REPAIR MORTAR CURING MATERIALS

Absorptive Cover: Burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd., complying with AASHTO M 182, Class 2.

Moisture-Retaining Cover: One of the following, complying with ASTM C171.

Waterproof paper.

Polyethylene film.

Polyethylene-coated burlap.

PART 3 - EXECUTION

GENERAL

All concrete repair work shall be in strict accordance with material manufacturer's product data sheets, specifications, and written instructions, including, but not limited to surface preparation, material handling, safety precautions, mixing, application, and clean up.

FLOOR REPAIRS

Remove all defective concrete down to sound concrete using methods approved by Engineer.

Prepare surface as per repair mortar manufacturer's requirements.

Apply bonding agent per manufacturer's instructions.

Resurface areas using repair mortar as specified herein and shown on the drawings.

Cure and protect resurfaced areas in accordance with manufacturer's requirements. No curing compounds are allowed. Use covering materials as specified herein.

Upon completion of concrete repairs, "Blastrac" entire floor in preparation of coating.

Allow Engineer to perform inspection for cracks. Where approved, fill cracks with Crack Filler as specified herein. Allow a minimum of 24-hours curing before proceeding with further repairs.

Upon completion of concrete repairs, Blastrac entire floor in preparation of coating. Clean floor prior to application of floor coating system.

Apply Binder Coat (extended with Oven-Dried Silica Aggregate) as specified herein, with a squeegee followed by lightly broadcasting the entire surface with Broadcast Material as specified herein.

Protect and allow coating to cure in accordance with manufacturer's requirements.

Vacuum all excess aggregate from floor surface and seal using seal coat as specified herein. Protect and allow coating to cure in accordance with manufacturer's requirements.