



DIVISION 9 - FINISHES

Section 09900 Coatings

Part 1 - General

1.01 Summary

- A. This specification describes the coating of substrates with a vapor-barrier, solvent-free, protective, dampproofing, waterproofing, moisture-insensitive, epoxy resin coating.

1.02 Quality Assurance

- A. Manufacturing qualifications: The manufacturer of the specified product shall be ISO 9001 certified and have in existence a recognized ongoing quality assurance program independently audited on a regular basis.
- B. Contractor qualifications: Contractor shall be qualified in the field of concrete repair and protection with a successful track record of 5 years or more. Contractor shall maintain qualified personnel who have received product training by a manufacturer's representative.
- C. Install materials in accordance with all safety and weather conditions required by manufacturer or as modified by applicable rules and regulations of local, state and federal authorities having jurisdiction. Consult Material Safety Data Sheets for complete handling recommendations.

1.03 Delivery, Storage, and Handling

- A. All materials must be delivered in original, unopened containers with the manufacturer's name, labels, product identification, and batch numbers. Damaged material must be removed from the site immediately.
- B. Store all materials off the ground and protect from rain, freezing or excessive heat until ready for use.
- C. Condition the specified product as recommended by the manufacturer.

1.04 Job Conditions

- A. Environmental Conditions: Do not apply material if it is raining or snowing or if such conditions appear to be imminent. Minimum application temperature 40°F (5°C) and rising.
- B. Protection: Precautions should be taken to avoid damage to any surface near the work zone due to mixing and handling of the specified material.

1.05 Submittals

- A. Submit two copies of manufacturer's literature, to include: Product Data Sheets and appropriate Material Safety Data Sheets (MSDS).

1.06 Warranty

- A. Provide a written warranty from the manufacturer against defects of materials for a period of one (1) year, beginning with date of substantial completion of the project.

Part 2 - Products

2.01 Manufacturer

- A. **Sikagard 62**, as manufactured by Sika Corporation, 1682 Marion Williamsport Road, Marion, Ohio, 43302 is considered to conform to the requirements of this specification.

2.02 Materials

- A. Epoxy resin coating:
 - 1. Component A shall be a epoxy resin of diglycidylether of bisphenol A containing suitable viscosity control agents. It shall not contain butyl glycidyl ether.
 - 2. Component B shall be primarily a reaction product of a selected amine blend with an epoxy resin of the epichlorohydrin bisphenol A type containing suitable viscosity control agents, pigments, and accelerators.
 - 3. The ratio of Component A: Component B shall be 1:1 by volume
- B. Granules for slip-resistance shall be supplied by the manufacturer of the specified product and shall be able to be mixed into the coating and shall not settle during application.

2.03 Performance Criteria

- A. Typical Properties of the mixed epoxy resin coating:
 - 1. Pot Life: 35- 40 minutes (60 gram mass)
 - 2. Tack FreeTime: Approximately 4 hours
 - 3. Color: red, grey, tan
 - 4. Solids: 100% VOC g/l : 134 (A+B)
 - 5. Immersion & Chemical Exposure: min. Cure 3 Days

Typical Properties of the cured epoxy resin coating:

Water Absorption (ASTM D-570) at 7days: 0.1% max. (2 hour boil), 24 hour immersion

Elongation (ASTM D-522) at 14 days: 5% min.

Abrasion Resistance (ASTM D-968) at 14 days: 51 liters/mil

Adhesion classification (ASTM 3359) at 14 days: 4A.

Abrasion (Taber Abrader) at 7 days: Weight loss: 0.65 gm. max. (H-22 wheel; 1000 gm weight; 1000 cycles)

Tensile Properties (ASTM D-638) at 14 days: Tensile Strength 5,400 psi (37.3 Mpa) / Elongation at Break 2.7%

Bond Strength (ASTM C-882) Hardened Concrete to Hardened Concrete

2 Day (dry cure): 2,000 psi (13.79 MPa)

14 Day (moist cure): 1,500 psi. (10.34 MPa)

- 8. The coating shall have United States Department of Agriculture approval.

Note: Tests above were performed with the material and curing conditions @ 71°F – 75°F and 45-55% relative humidity.

Part 3 – Execution

3.01 Surface Preparation

- A. Substrate must be clean, sound, and free of surface contaminants. Remove dust, laitance, grease, oils, curing compounds, form release agents and all foreign particles by mechanical means. Substrate shall be in accordance with ICRI Guideline No. 03732 for coatings.

3.02 Mixing and Application

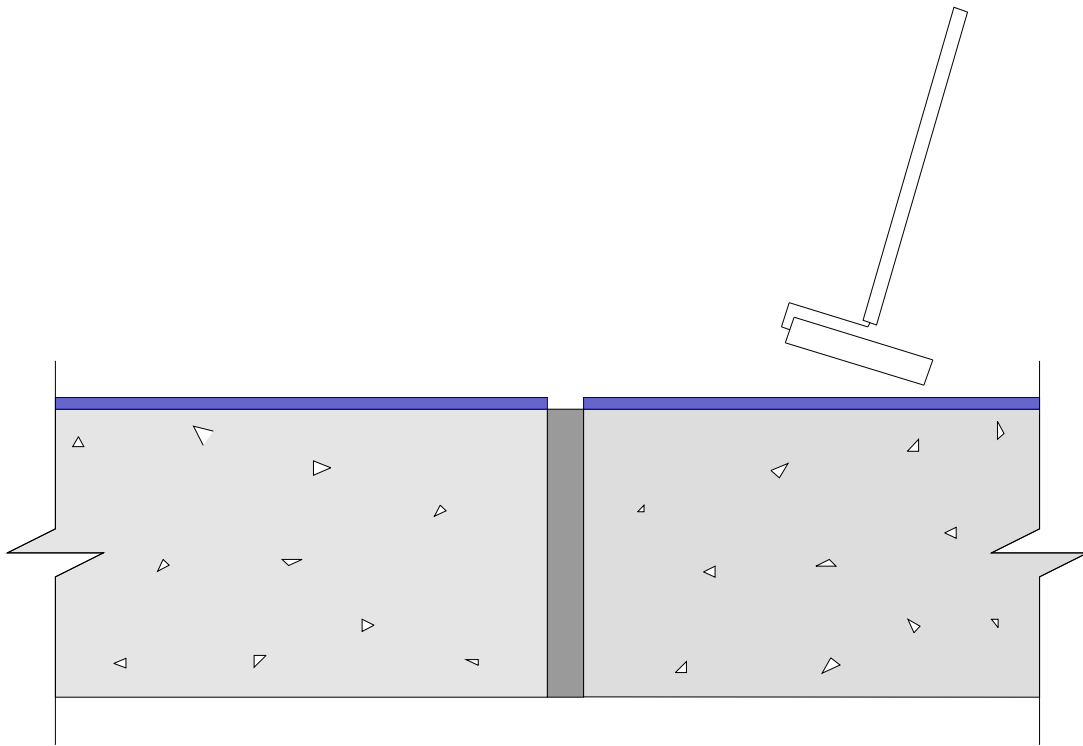
- A. **Mixing:** Premix each component. Proportion equal parts by volume of Component A and Component B into a clean, dry mixing pail. Mix thoroughly for 3 minutes min. with a jiffy paddle on a low-speed (400-600 rpm) drill. Mix only that quantity of material that can be used within its pot life (35 minutes at 73F). To minimize color difference, blend two complete Components B's together. Use only one of the blended Component B's to mix with a Component A. After the first Component B has been used, blend the second Component B with a new Component B and repeat the above procedure for the entire application.
- B. **Placement Procedure:** The epoxy resin coating shall be applied only to approved, prepared surfaces with high-quality brushes, rollers, or spray equipment. Coating shall be applied at ambient and substrate temperatures between 50 and 90F. Application thickness shall be between 4-7 mils per coat. Subsequent coats shall be applied within 48 hours of the previous coat. Care is to be taken on vertical and overhead surfaces to avoid sags or runs. If this occurs, it must be sanded out and the area re-coated. If coating of horizontal surfaces that will receive traffic is specified, a slip-resistant aggregate, Sikagard 62 Granules, shall be incorporated into the mixed epoxy resin coating at 1/2 lb./gallon or as directed by the engineer.
- C. When applying the coating, if possible never stop the application until the entire surface has been coated. If possible always discontinue at an edge, corner, or joint. Never let a previously coated film dry. Always coat into wet film. Always apply the coating at a 45^o angle to an edge, corner, or joint.
- D. Adhere to all limitations and cautions for the epoxy resin as stated in the manufacturers printed literature.

3.03 Cleaning

- A. The uncured epoxy resin coating can be cleaned from tools with an approved solvent. The cured epoxy resin coating can only be removed mechanically.
- B. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.

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Sikagard 62 Coating



1. Apply Sikagard 62 with high quality brushes or rollers. Care should be taken to avoid sags or runs.
2. When applying the coating, never stop the application until the entire surface has been coated.
3. Subsequent coats shall be applied within 48 hours of the previous coat.
4. For a slip-resistant surface, aggregate shall be incorporated into the mixed epoxy resin coating at a ½ lb./gal.

Note: When applying Sikagard 62 always end at an edge, corner or joint. Do not apply 62 directly over joint filler.

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