

**Section 07103**  
**ISO-FLEX® PROTECTIVE CONCRETE SEALER**

**PART 1 - GENERAL**

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions, apply to this section.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Concrete curing, finishing, jointing and repair requirements affect this section.

1.03 QUALITY ASSURANCE

- A. Work under this section shall be performed by an applicator approved by the manufacturer, both having a minimum of five continuous years of experience in this type of work. The manufacturer shall evidence in writing that the applicator designated to perform the work is qualified to install the specified systems.
- B. Prequalification of bidders: Submit proposed subcontractors to the engineer for approval prior to bid. Qualification criteria shall include compliance with 1.03-A above. Specifier retains absolutely the right to reject any applicator or manufacturer submitted.
- C. A site inspection shall be made by the approved applicator prior to commencing installation of the system, for purposes of reviewing related conditions affecting performance requirements of this specification.
- D. All products described in this section must be used with adequate ventilation and personal protection. Refer to the Material Safety Data Sheet which accompanies each product shipment for detailed health and safety information prior to use.

1.04 SUBMITTALS

- A. A detailed statement describing the protective concrete sealer systems to be installed shall be submitted for approval prior to installation. Literature, details, samples, warranties, etc., shall be included in the submittal as required.
- B. Manufacturer's written acceptance and approval of the intended system applicator is required.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

Concrete sealer system approved for use under this section shall be:

- A. "Iso-Flex 618 Silane Sealer" (40% and 20% solids) by Master Builders, Inc., 23700 Chagrin Blvd., Cleveland, Ohio 44122 (216-831-5500). (A premium, non-film forming, non-coloring sealer with superior penetration properties recommended for use where sun exposure, high traffic wear and/or slippery conditions may develop. Iso-Flex 618 is also the preferred choice where surface discoloration is a concern.)

### 2.02 APPLICABLE STANDARDS

- A. Approved sealers shall submit test results as required, showing proof of meeting the standards established by the NCHRP report #244, "Concrete Sealers for Protection of Bridge Structures" as conducted by Wiss, Janney, Elstner & Associates, Inc., Northbrook, IL.
  1. The upper limits on average weight gain and chloride content at the completion of the 21 day 4" cube test, shall be limited to 25% of weight gain and 25% of net chloride content of untreated control cubes.
  2. The upper limit of the average chloride content at the end of the 24 week Southern Exposure Test shall be limited to 10% of the net chloride content of untreated control slabs.

## PART 3 - EXECUTION

### 3.01 GENERAL

- A. All work shall be installed in strict accordance with system manufacturer's recommendations employing trained installers utilizing proper tools and equipment and working under the direct supervision of a technically competent and experienced supervisor.
- B. All surfaces related to work under this section shall be inspected by the approved applicator prior to commencing work. Any conditions discovered which render the substrate unsuitable shall be reported and satisfactorily corrected prior to installation of the system to be applied under this section.
- C. Coordinate and verify that related work items meet the following requirements.
  1. All surfaces shall be clean, dry and of sound substrate at time of application. Surfaces shall be provided free of voids, ridges and sharp projections.
  2. Existing surfaces shall be prepared in accordance with the concrete sealer manufacturer's recommendations prior to receiving the sealer system.
  3. A broom or float swirled finish is recommended for new concrete surfaces to receive the sealer system. Smooth trowelled finishes should not be permitted.
  4. Concrete surfaces shall be water cured, or cured with a compatible curing compound as recommended by the manufacturer.
  5. Concrete surfaces shall have cured for an acceptable period as recommended by the manufacturer.

**D. Environmental Conditions**

1. The temperature of the surface to be sealed and surrounding air shall not be lower than 40°F during application and curing.
2. The slab to which the sealer is to be applied shall be surface dry at application according to ASTM D4263, Standard Test Method for Indicating Moisture in Concrete.
3. Provide adequate ventilation during sealer application. No smoking, open flames, sparks or high heat is permitted during application. Prolonged breathing of vapors or contact with skin should be avoided.

**3.02 PREPARATION**

- A. Curing compounds, line striping paint, as well as other coatings or adhesives to be applied to the concrete surface shall be compatible with the concrete sealer system. All such products to be used shall be submitted to the applicator for approval prior to use.
- B. Work shall not proceed with the sealer system until unsatisfactory conditions have been corrected in a manner acceptable to the applicator.

**3.03 INSTALLATION**

- A. The sealer shall be applied in strict accordance with manufacturer's recommendations, at the application rates used in the NCHRP #244 test evaluation.
- B. Excess sealer should be removed from surface. If surface will not accept recommended coverage rate, solids content may be reduced by adding solvent and adjusting coverage accordingly. Consult with the concrete sealer manufacturer for instruction.
- C. The sealer system shall be adequately protected from traffic until fully cured.

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