

SECTION 03 05 13
CONCRETE SEALERS

PART 1 – GENERAL

1.1 SUMMARY

- A. Furnish and install concrete sealers/coatings on exposed--to--view concrete floors where shown and as scheduled on the Drawings.

1.2 RELATED REQUIREMENTS

- A. Section 03 30 00 – CAST-IN-PLACE CONCRETE:
 - 1. Placing and finishing concrete slabs.
 - 2. Dustproofing concrete slabs exposed to view and substrate for carpet.

1.3 REFERENCES

- A. Comply with applicable requirements of the following standards and those others referenced in this Section, under the provisions of Section 01 42 00 -- REFERENCES.
 - 1. ASTM C156 – Water Retention by Liquid Membrane--Forming Curing Compounds for Concrete.
 - 2. ASTM C309 – Liquid Membrane-Forming Compounds for Curing Concrete.
 - 3. ASTM C1315 – Liquid Membrane-Forming Compounds, having Special Properties for Curing and Sealing Concrete

1.4 SUBMITTALS

- A. Submit the following under provisions of Section 01 33 00 -- SUBMITTAL PROCEDURES:
 - 1. Literature: Manufacturer's product data sheets, specifications, performance data, physical properties, material compositions, and application instructions for all finishing products to be applied hereunder.
 - a. Include certification of data indicating Volatile Organic Compound (VOC) content of all coatings.
 - 2. Samples of each level of slip resistance, aggregate, and pattern available in the specified products from the proposed manufacturer.
 - 3. Provide manufacturer's documentation indicating that the concrete sealer is compatible with the raised access floor pedestal adhesive.

1.5 QUALITY ASSURANCE

- A. Use an applicator approved by the manufacturer, experienced in the approved materials, and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.6 ENVIRONMENTAL CONDITIONS

- A. Work shall be done only under optimum conditions as recommended by manufacturer. Surfaces over which sealer is to be applied shall be completely dry (minimum 30 days

since concrete placement) and thoroughly clean. Maximum moisture content is 8 percent. Substrate and ambient temperature shall be between 60 and 90 degrees Fahrenheit (15 to 32 degrees Celsius).

1.7 PRODUCT HANDLING

- A. Deliver materials to the job site and store in their original unopened containers with all labels intact and legible at time of use. Store in strict accordance with the manufacturer's recommendations.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Transparent non--yellowing water--based acrylic sealer having a minimum of 25 percent solids, with a maximum VOC limit of 100 g/L. Subject to compliance with ASTM C309, Type 1, Class A and B, ASTM C1315 Type 1, Class B, and requirements specified herein.
 - 1. Manufacturers offering products which may be incorporated in the work include the following, or approved equal:
 - a. Euclid Chemical Company, Cleveland, Ohio, product "Ultra Guard".
 - b. L&M Construction Chemicals Inc., Omaha NE, product "Dress & Seal WB25". (30% solids)
 - c. Symons Corporation, Des Plaines, IL, product "Cure & Seal HS WB".

PART 3 – EXECUTION

3.1 SURFACE PREPARATION

- A. Upon acceptance of completed substrate surfaces, thoroughly remove all dust and debris by sweeping or vacuum cleaning.
- B. Remove laitance, curing sealers, and other foreign matter from concrete surfaces with necessary techniques such as shot blasting, Muriatic acid etching, surface freezing and power scarification.
- C. Surface preparation required if a curing compound has been applied to substrate surfaces.
 - 1. Thoroughly etch concrete surfaces using well mixed solution consisting of two parts by volume water diluted with one part by volume 30 percent commercial grade hydrochloric acid at a rate of one quart per ten square feet. Apply evenly to thoroughly saturated areas and scrub into surfaces using stiff--bristled broom. Allow solution to activate undisturbed for not less than five minutes or for duration of boiling effect.
 - 2. Thoroughly remove etching solution by washing down surfaces with clean water; flooded at least three separate times at a rate of two gallons per ten square feet; thoroughly remove all contaminants that may be engrained or latent in surfaces.
 - 3. Perform a test application of a square foot in three locations, such as beneath casework. Allow to set for 72 hours, and test adhesion as recommended by the manufacturer.

3.2 APPLICATION

- A. Apply sealer with manufacturer's recommended sprayer, at recommended rate of 400 square feet per gallon. Apply second coat when sealer is dry to touch. Allow sealer to cure undisturbed for a minimum period of 6 hours. Maintain temperature at 60 degrees Fahrenheit minimum until floor surfacing has completely dry.

END OF SECTION