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Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, contained in the *CSI Manual of Practice*.

The section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the drawings.

Delete all "Specifier Notes" when editing this section.

SECTION 09966

EPOXY COATING

Specifier Notes: This section covers "Sta-Crete 3700" WB high-gloss epoxy coating for application primarily as an interior clear topcoat over Kemiko and Rembrandt stains.

Consult Kemiko for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Epoxy coating.

1.2 RELATED SECTIONS

Specifier Notes: Edit the following list of related sections as required for the project. List other sections with work directly related to this section.

- A. Section 09910 - Paints.

1.3 REFERENCES

Specifier Notes: List standards referenced in this section, complete with designations and titles. This article does not require compliance with standards, but is merely a listing of those used.

- A. ASTM C 579 - Standard Test Methods for Compressive Strength of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing and Polymer Concretes.
- B. ASTM D 2794 - Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
- C. ASTM D 4060 - Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser.
- D. ASTM D 4541 - Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.
- E. ASTM E 662 - Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials.
- F. SSPC-SP1 - Solvent Cleaning.
- G. SSPC-SP2 - Hand Tool Cleaning.
- H. SSPC-SP3 - Power Tool Cleaning.
- I. SSPC-SP6/NACE 3 - Commercial Blast Cleaning.
- J. SSPC-SP7/NACE 4 - Brush-Off Blast Cleaning.

1.4 SUBMITTALS

- A. Comply with Section 01330 - Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including surface preparation and application instructions.
- C. Color Samples: Submit manufacturer's standard color chart.

Specifier Notes: Delete the applicator's project references submittal if not required for the specific application.

- D. Applicator's Project References: Submit list of successfully completed projects, including project name and location, name of architect, and type and quantity of epoxy coatings applied.

1.5 QUALITY ASSURANCE

Specifier Notes: Delete applicator's qualifications if not required for the specific application.

- A. Applicator's Qualifications:
 - 1. Successful experience in application of similar epoxy coatings.

2. Employ persons trained for application of epoxy coatings.

Specifier Notes: Describe requirements for a meeting to coordinate the application of the epoxy coating.

- B. Pre-application Meeting: Convene a pre-application meeting before start of application of epoxy coating. Require attendance of parties directly affecting work of this section, including Contractor, Architect, and applicator. Review surface preparation, application, protection, and coordination with other work.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying manufacturer, product name, and epoxy coating color.
- B. Storage: Store materials in clean, dry area indoors in accordance with manufacturer's instructions. Keep containers sealed until ready for use.
- C. Handling: Protect materials during handling and application to prevent damage or contamination.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Apply Epoxy Coating with Air Temperature:
 1. Between 50 degrees F and 100 degrees F.
 2. 5 degrees F above dew point.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Kemiko Concrete Products, PO Box 1109, Leonard, Texas 75452. Phone (903) 587-3708. Fax (903) 587-9038. Web Site www.kemiko.com. E-Mail sales@kemiko.com.

2.2 EPOXY COATING

- A. Coating: Sta-Crete 3700 WB high-gloss epoxy coating.
 1. Description: High-gloss, quick-dry, amine-cured, water-extended, epoxy coating.
 2. Dry Film Thickness: 2 to 3 mils.
 3. Volume Solids, Clear and Pigmented: 50 percent.
 4. VOC: 95 g/L.
 5. Abrasion Resistance, ASTM D 4060: 45 mg loss.
 6. Adhesion, ASTM D 4541: Greater than 700 pounds.
 7. Optical Density of Smoke Generation, ASTM E 662:
 - a. Flaming Mode: 8.3 minutes maximum.
 - b. Non-Flaming Mode: 20 minutes maximum.
 8. Direct Impact Resistance, ASTM D 2794: 50 inches per pound.
 9. Flexibility, 180 Degree Bend, 1/4-Inch Mandrel: Pass.
 10. Compressive Strength, ASTM C 579: 13,800 psi.
 11. Hardness, Shore D: 85.

Specifier Notes: This coating is used primarily as a clear topcoat, but it is also available in colors. Consult Kemiko for additional information. Specify the desired color and delete the others.

12. Color: [Clear] [White] [Gray] [Tan] [Spanish Red] [Light Gray] [Beige] [Diego Blue] [Yellow] [Navaho White].

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to receive epoxy coating. Notify Architect if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.

3.2 SURFACE PREPARATION

- A. Protection: Protect surrounding surfaces not to receive epoxy coating.
- B. Prepare surfaces in accordance with manufacturer's instructions.

Specifier Notes: This coating is used primarily as an interior clear topcoat over Kemiko and Rembrandt stains, but it can also be used alone. Consult Kemiko for additional information.

Delete surface preparation paragraphs not required.

- C. Concrete:
1. Remove dirt, dust, oil, grease, and other surface contaminants before abrasive surface preparation, acid etching, and water washing.
 2. Ensure surfaces are cured, dry, and free from alkali stain and laitance.
 3. Ensure concrete is a minimum of 28 days old.
 4. Prepare surfaces in accordance with SSPC-SP7.
- D. Metals:
1. Remove dirt, dust, oil, grease, and other surface contaminants before abrasive surface preparation.
 2. Prepare carbon steel in accordance with SSPC-SP6. Achieve 1-mil to 2-mil surface profile.
 3. Prepare small surfaces in accordance with SSPC-SP2 and SSPC-SP3, followed by SSPC-SP1.
- E. Wood: Ensure surfaces are clean, dry, and free from mildew, organic matter, and surface contaminants.
- F. Existing Coatings:
1. Remove dirt, dust, oil, grease, chalk, loose coatings, and other deleterious matter in accordance with manufacturer's instructions.
 2. Spot prime surfaces as required.

3.3 APPLICATION

- A. Apply epoxy coating in accordance with manufacturer's instructions at locations indicated on the

drawings.

- B. Mix components and thin with water in accordance with manufacturer's instructions.
- C. Do not use mixed materials beyond pot life limits.
- D. Keep material containers closed when not in use to avoid contamination.
- E. Use application equipment, tools, pressure settings, and techniques in accordance with manufacturer's instructions.
- F. Uniformly apply epoxy coating at spreading rate required to achieve specified dry film thickness.
- G. Apply epoxy coating to be free of film characteristics and defects that would adversely affect performance or appearance.

3.4 PROTECTION

- A. Protect completed epoxy coating from damage during construction.

END OF SECTION