

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

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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 09965

POLYURETHANE COATING

Specifier Notes: This section covers "Sta-Crete 2700 Series" waterborne aliphatic polyurethane coating for application primarily as a 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. Polyurethane 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 D 2794 - Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
- B. ASTM D 3363 - Standard Test Method for Film Hardness by Pencil Test.
- C. ASTM D 4145 - Standard Test Method for Coating Flexibility of Prepainted Sheet.
- D. ASTM D 4541 - Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.
- E. ASTM G 53 - Practice for Operating Light- and Water-Exposure Apparatus (Fluorescent UV-Condensation Type) for Exposure of Nonmetallic 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.

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 polyurethane 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 polyurethane coatings.
 - 2. Employ persons trained for application of polyurethane coatings.

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

- B. Pre-application Meeting: Convene a pre-application meeting before start of application of polyurethane 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 polyurethane 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 Polyurethane 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 POLYURETHANE COATING

- A. Coating: Sta-Crete 2700 Series waterborne aliphatic polyurethane coating.
 1. Description: 2-component, waterborne, high-solids, aliphatic polyurethane coating.
 2. Gloss: High gloss.
 3. Dry Film Thickness: 2.5 to 3.5 mils.
 4. Volume Solids, Clear and Pigmented: 70 percent.
 5. VOC: 0 g/L.
 6. Pencil Hardness, ASTM D 3363: 4H.
 7. Adhesion, ASTM D 4541: Greater than 1,000 pounds.
 8. Weathering, ASTM G 53, 1,500 Hours: 90 percent gloss retention.
 9. Impact Resistance, ASTM D 2794: Greater than 175 inches per pound.
 10. O-T Bend Adhesion, ASTM D 4145: Pass.

Specifier Notes: Specify clear or white. This coating is used primarily as a clear topcoat, but it is also available in white. Consult Kemiko for additional information.

11. Color: [Clear] [White].

Specifier Notes: Sta-Crete 2700 Series is self-priming or specify the desired primer and delete the others. Consult Kemiko for additional information.

B. Primer: [Self-priming] [Sta-Crete SS1600] [Sta-Crete SS3700] [Col-R-Tone III] [ZRC].

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine surfaces to receive polyurethane 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 polyurethane coating.

B. Prepare surfaces in accordance with manufacturer's instructions.

Specifier Notes: This coating is used primarily as a 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.

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 polyurethane 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.

Specifier Notes: Include the following sentence if a primer is to be applied. Delete the following sentence if the Sta-Crete 2700 Series polyurethane coating is to be self-priming.

- F. Apply primer in accordance with manufacturer's instructions.
- G. Uniformly apply polyurethane coating at spreading rate required to achieve specified dry film thickness.
- H. Apply polyurethane coating to be free of film characteristics and defects that would adversely affect performance or appearance.

3.4 PROTECTION

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

END OF SECTION