



SECTION 099726

Cementitious Coatings

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes: Provide a complete acrylic based cementitious coating system for concrete surfaces that meet the requirements for specific use indicated in the contract documents. Include all applicable substrate testing, surface preparation, and detail work.

1.02 RELATED SECTIONS

- A. Section 033000 – Cast-In-Place Concrete
- B. Section 090000 – Finishes

1.03 SUBMITTALS

- A. Submit under provisions of Section 013300.
- B. Product Data: Submit manufacturer's product data sheets on each product and system to be used including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements.
 - 3. Installation methods.
 - 4. Maintenance requirements.
- C. Selection Samples: For each system specified, provide two sets of samples and color charts, representing manufacturer's full range of colors and patterns.

1.04 QUALITY ASSURANCE

- A. All materials used in the cementitious coating system shall be manufactured and provided by a single manufacturer to ensure compatibility and proper bonding.
- B. Use adequate numbers of skilled workmen that are thoroughly trained and experienced in the necessary crafts and completely familiar with the specified requirements and methods needed for proper performance of the work of this section.
- C. Contractor shall have a minimum of three years experience installing cementitious coatings similar to that which is required for this project and who is acceptable to the manufacturer.
 - 1. Applicator shall designate a single individual as project foreman who shall be on site at all times during installation.
 - 2. Contractor must show and have QCA Qualified Contractor/Applicator paperwork from the manufacturer of the coating system, as required to obtain a long-term jobsite specific warranty.
- D. Convene a meeting before the start of application of coating system. Require attendance of parties directly affecting work of this section, including: architect, contractor, applicator, and authorized representative of the coating system manufacturer and interfacing trades. Review the following:
 - 1. Drawings and specifications affecting work of this section.
 - 2. Protection of adjacent surfaces.
 - 3. Surface preparation and substrate conditions.
 - 4. Application.
 - 5. Field quality control.
 - 6. Protection of coating system.

7. Repair of coating system.
8. Coordination with other work.

1.05 DELIVERY, STORAGE & HANDLING

- A. Delivery: Materials shall be delivered to the job site in sealed, undamaged containers. Each container shall be clearly marked with manufacturer's label showing type of material, color, and lot number.
- B. Storage: Store all materials in a clean, dry place with a temperature range in accordance with manufacturer's instructions.
- C. Handling: Handle products carefully to avoid damage to the containers. Read all labels and material safety data sheets prior to use.

1.06 PROJECT SITE CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within the limits recommended by the manufacturer.
- B. All concrete should be tested for moisture before applying a seamless coating. If moisture emissions exceed 5 lbs/1000 square feet (ASTM F1869) or if the relative humidity (RH) exceeds 75% (ASTM F2170), see EC-15 Moisture Vapor Barrier product specification.
- C. Concrete must be at least 2500 psi.
- D. Concrete must be cured for a minimum of 28 days before coating is applied.
- E. Schedule coating work to avoid excessive dust and airborne contaminants. Protect work areas from excessive dust and airborne contaminants during coating application.
- F. Before any work is started, the applicator shall examine all surfaces for any deficiencies. Should any deficiencies exist, the architect, owner or general contractor shall be notified in writing and any corrections necessary shall be made.

1.07 WARRANTY

- A. Upon completion of the work in this section provide a written warranty from the manufacturer against defects of materials for a period of 5 (five) years. To obtain project specific warranty the coating system applicator must be a Westcoat Qualified Contractor/ Applicator and apply for warranty.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable manufacturer: Westcoat Specialty Coatings; 4007 Lockridge Street, San Diego, CA 92102, San Diego, CA 92102. Telephone 800-250-4519. Fax 619-255-7187. Website: www.westcoat.com.

2.02 MATERIALS

- A. As basis of design Westcoat Texture-Crete Solar Reflective System (no substitutions will be accepted): A series of polymer modified cementitious coatings bonded to concrete and sealed with an acrylic topcoat.

2.03 COMPONENTS

- A. Westcoat Texture-Crete Solar Reflective System: Decorative cementitious coating designed for concrete resurfacing.
 1. Primer: EC-11 Water-Based Epoxy, 2 parts A to 1 part B (by volume). Primer applied at 250-350 square feet per gallon.
 3. Slurry Coat: Combine and mix one 50 pound bag of TC-1W White Basecoat Cement, 1 gallon of WP-81 Cement Modifier, and up to ½ gallon of water. Apply at 150-300 square feet per batch.

4. Texture Coat: Combine and mix one 50 pound bag of TC-2 Smooth Texture Cement, 1 gallon of WP-81 Cement Modifier, and up to ½ gallon of water. Texture can be sprayed, troweled or broomed at a rate of about 150 to 300 square feet per batch.
5. Topcoat: Apply desired color of SC-10 Solar Reflective Acrylic Topcoat in two thin applications at 200-400 square feet per gallon.

2.04 ACCESSORIES

- A. Supplemental Materials:
 1. Patching materials: EC-72 Epoxy Patch Gel.
 2. Concrete repairs can be made with TC-23 Mortar Mix as needed.
 3. WP-47-3 Seam Tape for crack repair.
 4. Optional aggregate: CA-30 Small or CA-31 Large Safe Grip.
 5. Optional primer: WP-81 Cement Modifier or EC-12 Epoxy Primer can be used in place of the EC-11 Water Based Epoxy.

2.05 SOURCE QUALITY CONTROL

- A. Verification of Performance
 1. Physical Properties: The finish Texture-Crete System shall have the following approximate performance characteristics:

a. Bond Strength to concrete (ASTM C297)	278 PSI
b. Bond Strength after accelerated aging (ASTM C756)	249 PSI
c. Abrasion Test (ASTM D1242)	11% reduction
d. Freeze thaw on concrete (ASTM C67)	171 PSI
e. Concentrated load (AC39)	No apparent damage
f. Water absorption (ASTM D570)	6.5%
g. Percolation test (AC39 Sec. 4 G)	.25 inches
h. Tensile Strength (ASTM C190-85)	855 PSI
i. Compressive Strength (ASTM C109-88)	5690 PSI
j. Flexural Strength	1835 PSI
k. Impact Strength	22 in/lbs.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions.
 1. Inspect all surfaces to receive cementitious coating. Verify that surfaces are dry, clean, and free of contaminants that would prevent epoxy flooring from properly adhering to the surface.
 2. Conduct calcium chloride testing according to ASTM F1869.
 3. Before starting work, report in writing to the authority having jurisdiction any unsatisfactory conditions.

3.02 SURFACE PREPARATION

- A. Prepare surfaces using methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- B. Prepare concrete to a profile equal to CSP 3 as specified by ICRI.
- C. Clean Surfaces thoroughly prior to installation.
- D. Rout and clean moving cracks and joints: fill with manufacturer's recommended flexible epoxy filler material.
- E. Repair any non-moving surface deviations with manufacturer's recommended patching material.

3.03 INSTALLATION

- A. Install coatings in accordance with manufacturer's instructions.
- B. Mix all materials in accordance with manufacturer's instructions.
- C. Use application equipment, tools, and techniques in accordance with manufacturer's instructions.

- D. Uniformly apply coatings at spread rates and in number of coats to achieve specified coverage.
- E. Adhere to all limitations, instructions, and cautions for cementitious coating as stated in the manufacturer's published literature.

3.04 FIELD QUALITY CONTROL

- A. Verify coatings and other materials are as specified.
- B. Verify coverages and finish of the system as work progresses.
- C. Manufacturer's representative shall provide technical assistance and guidance for surface preparation and application of coating systems.

3.05 PROTECTION AND CLEAN-UP

- A. Installation areas must be kept free from traffic and other trades during the application procedure and cure time.
- B. Protect finished surfaces of coating system from damage during construction.
- C. Touch-up, repair or replace damaged flooring system after substantial completion.
- D. Clean area and remove all debris upon completion of work. Dispose of empty containers properly according to current local, state and federal regulations.
- E. Allow material to cure 4 to 6 hours before light pedestrian traffic is permitted, 24 hours before heavy traffic, and 72 hours before vehicular traffic is permitted.

3.06 MAINTENANCE

- A. Contractor shall provide to owner, maintenance and cleaning instructions for the cementitious coating system upon completion of work. Owner is required to clean and maintain the surfaces to maintain manufacturer's warranty.

END OF SECTION

This guide specification has been prepared by Westcoat Specialty Coating Systems to assist design professionals in developing a project specific specification. This guide is a template that must be reviewed and adapted by specifiers to comply with project requirements. This guide specification is not to be copied directly into a project specification manual without review.