



**DIVISION 7 – THERMAL AND MOISTURE PROTECTION
07 16 13 POLYMER MODIFIED CEMENT WATERPROOFING
CONCRETE SURFACE(S)**

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes: Provide a complete acrylic modified cementitious waterproof 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 030000 – Concrete
- B. Section 050000 – Metals
- C. Section 060000 – Wood, Plastic, and Composites
- D. Section 071313 - Bituminous Sheet Waterproofing
- E. Section 071813 - Pedestrian Traffic Coatings
- F. Section 080000 – Openings
- G. Section 090000 – Finishes
- H. Section 220000 – Plumbing

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 pedestrian traffic system shall be manufactured and provided by a single manufacturer to ensure compatibility and proper bonding.
- B. Use adequate numbers of skilled workmen 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 3 years experience installing pedestrian traffic coatings of this type 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 pre-application 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 and weather) 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 a minimum of 2 inches thick
- E. Concrete must be cured for a minimum of 28 days before coating is applied.
- F. Schedule coating work to avoid rain and excessive dust and airborne contaminants. Protect work areas from moisture and excessive airborne contaminants during coating application.
- G. 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 defect 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. Telephone 800-250-4519. Fax 619-255-7187. Website: www.westcoat.com.

2.02 MATERIALS

- A. As basis of design Westcoat MACoat Waterproofing Underlayment System (no substitutions will be accepted): Waterproof reinforced deck system installed with a series of two separate waterproof applications. The first layer is WP-41 Sheet Membrane, a 60 mil rubberized asphalt self-sealing membrane. The second layer is a highly resinated cement designed for extra waterproofing and to protect the sheet membrane.

2.03 COMPONENTS

- A. MACoat Waterproofing Underlayment System: Waterproof walking deck system for use on elevated concrete decks for waterproofing underlayment and between slab applications.
 - 1. Primer: Apply WP-43-H Sheet Membrane Primer to concrete at 150-200 square feet per gallon.
 - 2. Sheet Membrane: Apply self-adhesive WP-41 Sheet Membrane to entire concrete deck, overlapping edges 2 inches and end laps 6 inches.
 - 3. Mastic: Apply WP-42 Sheet Membrane Mastic to all terminating edges, end lap and to any detailed areas.
 - 4. MACoat Application: Combine one 50 pound bag of TC-1 Basecoat Cement to 5 gallons of WP-90 Waterproofing Resin. Apply by trowel at 300-350 square feet per batch.

2.04 ACCESSORIES

- A. Supplemental Materials:
 - 1. Flashing shall be minimum 26 gauge bonderized sheet metal. 6 inch by 4 inch at wall to deck juncture and 2 inch by 4 inch drip edge at outside perimeter of deck.
 - 2. Drains shall be one piece deck drains with flange such as, by Thunderbird Products.
 - 3. Sealant shall be Westcoat WP-51 Polyurethane Sealant
 - 4. Westcoat WP Wrap can be used to provide additional waterproofing with reinforcement, along the perimeter of decks, over flashing and other challenging areas.
 - 5. Patching materials shall be EC-72 Epoxy Patch Gel.
 - 6. Concrete repairs can be made with TC-23 Mortar Mix as needed.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of conditions.
 - 1. Inspect all surfaces to receive the pedestrian traffic system. Verify that surfaces are dry, clean, and free of contaminates that would prevent coating system from properly adhering to the surface.
 - 2. Verify that substrates have ¼ inch slope per lineal foot.
 - 3. Before starting work, report in writing to the owner any unsatisfactory conditions.

3.02 SURFACE PREPARATION

- A. General:
 - 1. Prepare surfaces using methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- B. Concrete substrate:
 - 1. Create a surface profile by grinding, water blasting, or shot blasting to achieve a surface profile equal to CSP 3 as specified by ICRI.
 - 2. Rout and clean cracks and static joints: fill with manufacturer's recommended flexible epoxy filler material.
 - 3. Honor all moving and expansion joints. Seal with manufacture's recommended joint sealant.
 - 4. 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 pedestrian coatings 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.
- D. Allow 24 hours for mastic to fully cure and conduct flood test. Perform flood test with a minimum of 1 inch and a maximum of 3 inches of water for 24 hours. Drains shall be plugged and barriers placed to contain water.

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 coating 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 an additional 48 hours before heavy objects are placed on the surface.

3.06 MAINTENANCE

- A. Contractor shall provide to owner, maintenance and cleaning instructions for the floor 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.