



**DIVISION 7 – THERMAL AND MOISTURE PROTECTION
SECTION 071813 PEDESTRIAN TRAFFIC COATINGS
PLYWOOD & CONCRETE SURFACES**

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes: Provide a complete acrylic modified cementitious waterproof system for concrete and reinforced plywood 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. Specified elsewhere:

1. Section 07 24 00 Exterior Insulation and Finish Systems
2. Section 09 97 23 Concrete and Masonry Coatings
3. Section 09 97 26 Cementitious Coatings
4. Section 07 01 10.81 Waterproofing Replacement
5. Section 07 10 00 Damproofing and Waterproofing
6. Section 07 14 00 Fluid Applied Waterproofing
7. Section 03 00 00 Concrete
8. Section 04 00 00 Masonry
9. Section 07 14 16 Cold Fluid Applied Waterproofing
10. Section 07 16 13 Polymer Modified Cement Waterproofing
11. Section 03 35 00 Concrete Finishing
12. Section 09 09 00 Finishes
13. Section 09 94 00 Decorative Finishing

1.03 REFERENCES

- A. IAPMO – ER-587
B. California Building Code (2019 CBC) & Residential Code (2019 CRC)
C. City of Los Angeles Building Code (2020 LABC) & Residential Code (2020 LARC)
D. ChearChem/ Berkeley Analytical IAS TL-383 VOC approved.

1.04 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.

1.05 QUALITY ASSURANCE

- A. Cited Standards for reference for applications over concrete:
 - 1. Accelerated Aging (ASTM D756)
 - 2. Fire-Retardant Roof Covering (ASTM E108)
 - 3. Bond Strength (ASTM C-297)
 - 4. Abrasion Resistance (ASTM D1242)
 - 5. Water Absorption (ASTM D570)
 - 6. Chemical Resistance (ASTM D2299)
 - 7. Freeze-Thaw (ASTM C67)
 - 8. Concentrated Load (AC-39 Section 4.12)
 - 9. Impact Resistance (ASTM D3747)
 - 10. Surface Burning Characteristics (ASTM E84-17)
 - 11. Water Vapor Transmission (ASTM E96)
 - 12. VOC Emission Test (CDPH/EHLB/Standard Method Version 1.2, 2017)
- B. All materials used in the pedestrian traffic system shall be manufactured and provided by a single manufacturer to ensure compatibility and proper bonding.
- C. 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.
- D. 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.
- E. 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.

1.06 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.

1.07 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.

1.08 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 Standard Finish System (no substitutions will be accepted): Waterproof walking deck system that is reinforced with fiberlath and installed with a series of two or three separate polymer-modified cementitious applications, and sealed with acrylic topcoat.

2.03 COMPONENTS

- A. MACoat Standard Finish System: Waterproof walking deck system for use over concrete and plywood substrates, or existing coating, IAPMO ER-587
 1. Fiberlath: Place WP-47 Fiberlath over entire deck overlapping seams 2 inches.
 2. Base Coat: Combine one 50 pound bag of TC-1 Base Coat Cement and 5 gallons of WP-90 Waterproofing Resin. Apply by trowel at 220-260 square feet per batch.
 3. Feather Patch: Combine one 50 pound bag of TC-1 Base Coat Cement and 5 gallons of WP-90 Waterproofing Resin. Apply by paintbrush or trowel to smooth all seams or imperfections where fiberlath is not laminated flat, or where seams and overlaps are visible.
 4. Slurry Coat: Combine one 50 pound bag of TC-1 Base Coat Cement, 5 gallons of WP-90 Waterproofing Resin, and up to 1 quart of water. Apply by trowel at 250-320 square feet per batch.
 5. Smooth Texture Coat: Combine one 50 pound bag of TC-1 Base Coat Cement, 5 gallons of WP-90 Waterproofing Resin, and up to 1 quart of water. Apply by trowel at 300 to 350 square feet per batch.
 6. Knock Down Texture Coat: Combine one 50 pound bag of TC-3 Medium Texture Cement, one gallon of WP-90 Waterproofing Resin (for concrete substrates, one gallon of WP-81 Cement Modifier may be used), and up to ½ gallon of water. Apply by acoustical hopper gun to achieve a knock down texture at 150 to 200 square feet per batch.
 7. Topcoat: Apply desired color of SC-10 Acrylic Topcoat in two thin applications at 200-300 square feet per gallon.

2.04 ACCESSORIES

- A. Supplemental Materials:
 1. Flashing shall be minimum 26 gauge bonderized sheet metal. 4 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. Patching materials shall be EC-72 Epoxy Patch Gel.
 5. Concrete repairs can be made with TC-23 Mortar Mix as needed.
 6. Westcoat Slope Technique may be used if additional sloping is required.
 7. Westcoat WP Wrap can be used to provide additional waterproofing with reinforcement, along the perimeter of decks, over flashing and other challenging areas.

8. WP-82 Cement Modifier Low Odor can be used in lieu of WP-81, when a lower odor option is required.
- 9.. CA-29 Mini Safe Grip, CA-30 Small Safe Grip or CA-31 Large Safe Grip can be added to the SC-10 Acrylic Topcoat for added skid resistance.

Optional Topcoats:

9. SC-65G WB Gloss Polyurethane may be used OVER the SC-10 when a low odor, solvent free, mar and chemical resistant gloss finish is required.
10. SC-65SG Pigmented WB Semi-Gloss Polyurethane may be used IN LIEU of SC-10 when a low odor, solvent free, mar and chemical resistant semi-gloss finish is required.
11. SC-65F WB Flat Polyurethane may be used OVER the SC-10 or SC-65SG Semi Gloss when a low odor, solvent free, mar and chemical resistant flat finish is required.
12. EC-95G Gloss Polyurethane Topcoat can be used IN LIEU of SC-10 when a gloss, solvent-based polyurethane is required.
13. EC-95F Flat Polyurethane Topcoat can be used OVER the EC-95G when a flat, solvent-based polyurethane is required.

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 contaminants 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. Plywood substrate:
 1. Provide minimum 3/4 inch CDX exterior grade plywood.
 2. Plywood shall have a maximum joist span of 16 inches.
 3. Deflection should be less than L/480.
 4. Plywood seams shall be reinforced with WP-47-3 Seam Tape. Apply WP-51 Polyurethane Sealant, EC-72 Epoxy Patch gel into the tape with a putty knife to smooth. Broadcast with 30 silica sand to increase adhesion of next coat.
- C. 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.

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.