



**Pacific Polymers® Elasto-Deck 5000HT
Guide Specification**

SECTION 071816
TRAFFIC COATINGS

Pacific Polymers® – Elasto-Deck 5000 H.T. Guide Specification

SECTION 071816

FLUID APPLIED WATERPROOFING

PART 1 - GENERAL

1.1 SUMMARY

- A. Fluid applied heavy-duty waterproof traffic deck coating on concrete substrate.

1.2 RELATED SECTIONS

- A. Section 03300 – Cast-In-Place Concrete.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, installation instructions and Safety Data Sheets (SDS) for each product indicated.
- B. Samples:
 - 1. Submit samples of selected coating colors for approval by Architect.
 - 2. Submit 2 inch by 4 inch sample of fully cured traffic coating, prepared on rigid base indicating color and texture.
 - 3. Submit maintenance manual.

1.4 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Manufacturer of the coating systems shall have a minimum of 5 years experience in the manufacture of fluid applied traffic coatings.
 - 2. The System Applicator shall be qualified in writing by the Manufacturer and shall have a minimum of 5 years experience in application of fluid applied traffic coatings.

1.5 DELIVERY AND STORAGE

- A. Deliver materials to jobsite in sealed, undamaged containers. Each container shall be identified with material name, date of manufacture and lot number.

1.6 ENVIRONMENTAL CONDITIONS

- A. Install coating materials under the following conditions:

1. Concrete has not been treated with any substance, which will adversely affect adhesion or performance.
2. Rain is not anticipated within 8 hours of application.
3. Substrate surface temperatures are above 40°F. (5°C.) and lower than 110°F. (44°C.).
4. Positive ventilation for interior applications can be continuously supplied throughout application period and 8 hours after.
5. Open fires and spark producing equipment are not allowed in application area until vapors have dissipated.

- B. Post 'No Smoking' signs in area during and for a minimum of 8 hours after application

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Traffic Coating: Pacific Polymers, Elasto-Deck 5000HT liquid applied, moisture-cured, polyurethane deck covering system consisting of the following.
1. Primer: Elasto-Poxy Primer VOC, two- component, solvent based VOC compliant epoxy primer.
 2. Base Coat: Elasto-Deck 5001HT Base Coat, one-part self-leveling, and polyurethane coating.
 3. Top Coat: Elasto-Glaze 6001AL-HT Top Coat, one-part moisture-cured, aliphatic polyurethane top coat.
 4. Color: As selected by Architect.
 5. Metal Primer: Elasto-Poxy Primer VOC, two- component, solvent based VOC compliant epoxy primer.
- B. Aggregate: 20 mesh Gillibrand Silver Sand or as recommended by coating manufacturer.
- C. Sealant: PERMATHANE® SM7108, one-part gun grade, non-staining, polyurethane sealant manufactured by ITW POLYMERS SEALANTS NORTH AMERICA.
- D. Sealant: Elasto-Thane 227/227R, two-part gun grade, non-staining, polyurethane sealant manufactured by ITW POLYMERS SEALANTS NORTH AMERICA
- E. Fabric Reinforcement: Perma-Glass Mesh were applicable.

2.2 TECHNICAL DATA

Property	Measuring Standard and Conditions	Base Coat	Top Coat
Shore 'A' Hardness	ASTM D2240	75	95
Ultimate Tensile Strength	ASTM D412	1,500 PSI	2,780 PSI
Ultimate Elongation	ASTM D412	400%	200%
Adhesive Peel Strength on Concrete	ASTM D903	150 PLI	N/A
Peel Strength on Plywood	ASTM D903	30 PLI	N/A
Crack Bridging	ASTM C2369	System Passes	System Passes
Abrasion Resistance	ASTM C501-62T30 mil DFT on 4" x 4" metal CS17 wheel, 1000 rev, 1000 gram weight	N/A	0.029
Tear Resistance	ASTM D624	260 PLI	520 PLI
Weatherometer	ASTM D1499 & G23	1,000 Hours Slight Chalking	2,000 Hours No Change
Weight per Gallon		10.65 lbs	9.39 lbs
Viscosity at 77°F (25°C)	Brookfield Viscometer	70 poises	25 poises
Flash Point		120°F	120°F
Resistance to Gasoline		Slight Swelling	Slight Swelling

Resistance to Diesel Fuel		Slight Swelling	Slight Swelling
Resistance to Anti-Freeze		No Effect	No Effect
Resistance to Motor Oil		No Effect	No Effect
Resistance to Water		No Effect	No Effect
VOC	Calculated	100 gr./liter	100 gr./liter

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and remove laitance, loose surface material, grease, oil and contaminants.
- B. Verify concrete substrate has been cured with a sodium silicate based curing compound. Refer to section 03300.
- C. Concrete surface shall be visibly dry and pass a 4 hour rubber mat test with no condensate.
 - 1. Mat Test:
 - a. Place a 2'x 2' non-breathing rubber or vinyl mat onto concrete substrate.
 - b. Tape mat edges to concrete substrate on all sides.
- D. Metal surfaces shall be dry, clean, and free of grease, oil, dirt, rust, corrosion and contaminants.
- E. Metal surfaces shall be sound and fastened, free of voids and without offsets at joints. Ensure fasteners are driven flush.

3.2 PREPARATION

- A. Clean surfaces which are to receive coating.
 - 1. Remove oil and grease with a commercial grade alkaline cleaner.
- B. Prepare concrete substrate by sandblasting, shot blasting or acid etching with a 10%-15% solution of muriatic acid. Flush acid with clean water and allow substrate to dry
- C. Saw cut cracks exceeding 1/16" (.16cm) in width and apply sealant.
- D. Apply sealant to expansion, control and construction joints.

3.3 FLASHINGS

- A. Apply polyester fabric embedded in base coat at locations where a horizontal surface abuts a vertical surface and at deck penetrations.
- B. At projections through deck coatings provide a 1/4" bead of sealant with woven polyester cloth embedded. Tool sealant to form a cove and allow curing before over coating.

3.4 APPLICATION

- A. Primer: Prime concrete, masonry and metal surfaces. Allow a minimum dry time of two hours. Primer shall not be applied more than 8 hours preceding application of deck coating.
- B. Apply primer at the rate of 200-250 sq. ft. per gallon. Mix only enough for use over a 2-hour period (max.). Install deck coating base coat on the same day and within 4 hours following application of the primer.
- C. Apply 25-mil dry film thickness of base coat material over flashings (sheet flashings, sealant coves and rigid corners). Extend coating 2" beyond flashing out onto adjacent deck surface. Unless otherwise indicated on Drawings or where limited by height of base, extend coating a minimum of 1" above the top of the flashing and terminate in a straight line using masking tape.
- D. Apply 25-mil dry film thickness of base coat material over and for a distance of 1-1/2" on each side of all cracks.
- E. Apply 25-mil dry film thickness of base coat material over and for a distance of 2" on each side of expansion joints, control joints and construction joints. Joints shall be a maximum one inch in width.
- F. Base coat shall be applied to the primed concrete at a rate of 64 square feet per gallon (1.47 m²/liter) resulting in a film thickness of 25 mils (.6 mm). Application shall be made uniformly. Repair thin spots and pinholes. Allow base coat to cure overnight.
- G. Apply a second coat of base coat at a rate of 100 square feet per gallon (2.8 m²/liter).
- H. Immediately broadcast one gallon (15-18 lbs.) of aggregate uniformly into the wet coating per 100 sq. ft. then back roll. Do not broadcast to refusal. Allow to cure overnight.
- I. Double Broadcast: (Turn Radius and Ramp areas) Immediately broadcast one gallon (15-18 lbs.) of aggregate uniformly into the wet coating per 100 sq. ft. then back roll. Do not broadcast to refusal. Allow to cure overnight.
- J. Apply top coat at a rate of 140 sq. ft. per gallon (3.68 m²/liter) to equal 10 mils. (0.25mm). Allow 72 hours for complete cure of system.

3.5 CLEANING

- A. Clean stains from adjacent surfaces with approved cleaner.

- B. Remove construction barricades, debris and other items of work, including empty containers, from the Project site.
- C. Remove foreign matter from finished coating surfaces.

3.6 FIELD QUALITY CONTROL

- A. After membrane has cured, flood test horizontal area by adding water to a depth of 2 to 3 inches at outlets. Retain water at specified depth for a period of 24 hours. If leakage occurs, repair coating to the satisfaction of the Architect and retest.

END OF SECTION