



Pacific Polymers® Elasto-Deck 5000X2 Guide Specification

SECTION 071813
TRAFFIC COATINGS
ELASTO-DECK 5000X2 OVER CONCRETE

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URETHANE TRAFFIC COATING

ELASTO-DECK 5000X2 OVER CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

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

1.2 RELATED SECTIONS

- A. Section: 033000-Cast-In-Place Concrete

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, installation instructions and Material 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. Maintenance Manual: Submit manual.

1.4 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Qualifications: Manufacturer of the coating system[s] shall have a minimum of 5 years' experience in the manufacture of fluid applied traffic coatings. The System Applicator shall be approved 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/or lot number, contractor will verify with owner's representative prior to use.

1.6 ENVIRONMENTAL CONDITIONS

- A. Install coating materials under conditions where all of the following conditions are met:
 - 1. Rain is not anticipated within 8 hours of application
 - 2. Substrate surface temperatures are above 40 deg. F. (5 deg. C.) and lower than 100 deg. F. (38 deg. C.).
 - 3. Positive ventilation for interior applications can be continuously supplied throughout applied period and 8 hours after.
 - 4. Open fires and spark producing equipment are not, and will not be, in application area until vapors have dissipated.
- B. Post 'No Smoking' signs in area during and for at least 8 hours following application period.

1.7 GUARANTEE

- A. Completed installation shall be guaranteed against defects of material as defined on the guarantee issued by the manufacturer upon substantial completion of this work, for a period of 5 years, beginning with date of substantial completion of the deck coating system.
- B. Consult ITW Polymers Sealants North America, Inc. for warranty requirements prior to system installation.

PRODUCTS

1.8 MATERIALS

- A. Traffic Coating: Pacific Polymers® ELASTO-DECK 5000X2 liquid applied, moisture-cured, polyurethane deck covering system consisting of the following:
 - 1. Primer: Pacific Polymers® ELASTO-POXY Primer VOC, two- component, VOC compliant, solvent based epoxy primer.
 - 2. Primer: Pacific Polymers® ELASTO-POXY Primer WB, two- component, VOC compliant, water-based epoxy primer.
 - 3. Primer: IMPAX MMP Primer (A moisture mitigating, low odor inter-coat primer) manufactured by ITW Engineered Polymers.
 - 4. Base Coat: Pacific Polymers® ELASTO-DECK 5001NG Coating, one-part self-leveling, polyurethane coating.
 - 5. Broadcast and Topcoat: Pacific Polymers®, ELASTO-GLAZE 6001AL-HT Coating, one-part moisture-cured, aliphatic polyurethane topcoat.
 - 6. Color: As selected by Architect.
- B. Aggregate: 20 mesh Gillibrand Silver Sand or as recommended by coating manufacturer.
- C. Sealant: Permathane® SM7120 PU, one-part self-leveling gun-grade, non-staining, polyurethane sealant mfg. by ITW Polymers Sealants North America.
- D. Flashing Tape: Perma-Glas Mesh.

1.9 TECHNICAL DATA: Complies with ASTM C957

Property	Test Method	Elasto-Deck 5001NG Results	Elasto-Deck 6001AL-HT Results
Shore 'A' Hardness	ASTM D2240	75	95
Ultimate Tensile Strength	ASTM D412	430 PSI	2,780 PSI
Ultimate Elongation	ASTM D412	700%	200%
Adhesive Bond Strength on Primed Concrete	ASTM D4541	185 PSI	N/A
Peel Strength on Plywood	ASTM D903	14 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	58 PLI	280 PLI
Weatherometer	ASTM D1499 & G23	1,000 Hours Slight Chalking	2,000 Hours No Change
Weight per Gallon		9.65 lbs.	9.45-9.90 lbs
Viscosity at 77°F (25°C)	Brookfield Viscometer	60±10 poises	30±5 poises
Flash Point		120°F	120°F
Resistance to: Gasoline		Slight Swelling	Slight Swelling

Diesel Fuel		Slight Swelling	Slight Swelling
Anti-Freeze		No Effect	No Effect
Motor Oil		No Effect	No Effect
Water		No Effect	No Effect
VOC	EPA Method 24	82 gr./litre.	90 gr./litre.

PART 2 - EXECUTION

2.1 EXAMINATION

A. Concrete:

1. Concrete surfaces shall be trowel finished followed by a light brooming, left free of loose particles, ridges, projections, voids and droppings that can interfere with the application of the coatings.
2. Concrete surfaces shall be water cured in lieu of curing compounds for a minimum of 28 days. If curing compounds are used, pre-approve with manufacturer.
3. If concrete is poured in metal pans or decks, they shall be vented to permit proper cure of concrete.
4. If vented pans are not available, then Elasto-Poxy Primer VOC (a two component VOC compliant primer) shall be used. Apply epoxy primer at approximately 250 square feet per gallon, and provide a minimum 2 hour cure time before proceeding. At no time shall materials be applied over concrete surfaces having greater than 15% moisture content.

B. Examine substrates and remove loose surface material, grease, oil and contaminants.

C. Metal surfaces shall be dry, clean, free of grease, oil, dirt, rust, corrosion and contaminants.

D. Metal surfaces shall be sound and fastened, free of voids and without offsets at joints. Ensure fasteners are driven flush. (Metal surfaces to be coated are primed with Elasto-Poxy Primer VOC)

2.2 PREPARATION

A. Surfaces, which are to receive coating, shall be free of contamination such as water, curing compounds, hardeners, bond-breakers and paint.

B. Transitions between concrete and those between metal flashing and the concrete deck shall be reinforced by imbedding a 4-inch (10 cm) wide strip of Perma-Glas Mesh tape in wet base coat,

which is brushed evenly over the seam in a width of about 5 inches (12.7 cm) and a thickness of about 20 mils wet (.5 mm).

- C. The application of base coat can subsequently be made immediately over the entire area, including the taped areas.

2.3 FLASHINGS

- A. Provide fluid applied flashings with Perma-Glas Mesh cloth embedded at locations where a horizontal surface abuts a vertical surface, deck penetrations and perimeter flashing.
- B. At projections through deck coatings such as posts, vents, pipes, stanchions, railings and similar locations of potential slight movement, provide a 1/4" bead of sealant with Perma-Glas Mesh embedded as recommended by coating manufacturer. Tool sealant to form a cove and allow curing before over coating.

2.4 APPLICATION

- A. Primer: Prime metal surfaces with ELASTO-POXY Primer VOC, allow for a minimum 2-3 hour cure before application of deck coating.
- B. Apply 25-mil dry film thickness of base coat material over all 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 neat straight line. Use masking tape for such purposes.
- C. 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.
- D. Apply 25-mil dry film thickness of base coat material over and for a distance of 2" on each side of all expansion joints, control joints and construction joints to be coated all such joints must be less than one inch in width.
- E. Primer coat: Apply Elasto-Poxy Primer VOC or Elasto-Poxy Primer WB to properly prepared concrete substrate. Allow to cure 2-3 hours not to exceed 8 hours.
- F. First base coat: Elasto-Deck 5001NG shall be applied to the primed concrete at a rate of 56 square feet per gallon (1.35 m²/liter) per pass resulting in a dry film thickness of 30 mils (.76 mm). Application shall be made uniformly to avoid thin spots and care shall be taken to avoid pinholes and repair them should they occur. Allow to cure overnight. (12-16 hours)
- G. Second base coat: Elasto-Deck 5001NG shall be applied to the primed concrete at a rate of 45 square feet per gallon (1.35 m²/liter) per pass resulting in a dry film thickness of 30 mils (.76 mm). Allow to cure overnight (12-16 hours)
- H. Broadcast Coat: Following an overnight cure (16-24 hours), apply Elasto-Glaze 6001AL-HT broadcast coat at a rate of 120 square feet per gallon (2.70 m²/liter). Immediately broadcast aggregate to refusal. Allow to cure overnight.

- I. Topcoat: Following an overnight cure (16-24 hours), apply Elasto-Glaze 6001AL-HT at a rate of 120 square feet per gallon (2.94 m²/liter). Allow to cure 48 hours before light foot traffic.

2.5 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.

2.6 FIELD QUALITY CONTROL

- A. After membrane has cured, flood test 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. Ramps and horizontal surfaces with slope greater than 1 inch in 10 feet are exempt from testing requirement.

END OF SECTION