

SECTION 07181  
TRAFFIC COATINGS

PART 1 GENERAL

1.1 SUMMARY

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

1.2 RELATED SECTIONS

- A. Section 06100 – Rough Carpentry.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, installation instructions and Material Safety Data Sheets (MSDS) for each product indicated.

- B. Samples:

- 1. Submit samples of selected coating colors for approval by Architect.
- 2. Submit 12 inch by 12 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: 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 owners 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 110 deg. F. (44 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 and workmanship, 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

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Traffic Coating: Pacific Polymers, Inc., ELASTO-DECK™ 5000HT liquid applied, moisture-cured, polyurethane deck covering system consisting of the following:
1. Primer: Pacific Polymers, Inc., ELASTO-POXY™ Primer, two- component, solvent based epoxy primer.
  2. Base Coat: Pacific Polymers, Inc., ELASTO-DECK™ 5001HT Coating, one-part self-leveling, polyurethane coating.
  3. Top Coat: Pacific Polymers, Inc., ELASTO-GLAZE™ 6001AL HT Coating, one-part moisture-cured, aliphatic polyurethane top coat.
  4. Color: As selected by Architect.
- B. Aggregate: 20 mesh Monterey sand or as recommended by coating manufacturer.
- C. Sealant: Pacific Polymers, Inc., ELASTO-THANE™ 230, one-part self-leveling or gungrade, non-staining, polyurethane sealant .
- D. Flashing Tape: Woven polyester tape, commercial grade.
- E. Sheet Flashing: .050" thick, pre cured, commercial grade neoprene.
- F. Plywood: Exterior grade, refer to Section 06100.

### 2.2 TECHNICAL DATA

Property	Measuring Standard and Conditions	Base Coat	Top Coat
Shore 'A'	ASTM D2240	75	95

Hardness			
Ultimate Tensile Strength	ASTM D412	1500 PSI	2,800 PSI
Ultimate Elongation	ASTM D412	400%	160%
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		120F	120F
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		210 gr./litre.	250 gr./litre.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates and remove loose surface material, grease, oil and contaminants.
- B. Metal surfaces shall be dry, clean, free of grease, oil, dirt, rust, corrosion and contaminants.
- C. Metal surfaces shall be sound and fastened, free of void and without offsets at joints. Ensure fasteners are driven flush.

### 3.2 PREPARATION

- A. Surfaces, which are to receive coating, shall be free of contamination such as water, curing compounds, hardeners, bond-breakers and paint.
- B. Exterior grade plywood shall be used.
- C. Seams between plywood sheets and those between metal flashing and the plywood deck shall be reinforced by imbedding a 4-inch (10 cm) wide strip of glass cloth 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).
- D. The application of base coat can subsequently be made immediately over the entire area, including the taped areas.

### 3.3 FLASHINGS

- A. Provide fluid applied flashings with woven polyester cloth embedded at locations where a horizontal surface abuts a vertical surface and at deck penetrations.
- B. At locations of potential high movement such as wall/slab intersections, which are not structurally and rigidly, connected provide 10" min. width of pre-cured sheet flashing or reinforce coating with one layer of uncoated, woven polyester cloth. Where sheet flashings are used, they shall be free or un-bonded to the substrate within 2" vertically and horizontally from meeting angle but shall be fully bonded for not less than 2" on vertical surface and 4" on horizontal surface. Do not use pre cured sheet flashings over expansion joints in horizontal surfaces.
- C. 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 woven polyester cloth embedded as recommended by coating manufacturer. Tool sealant to form a cove and allow curing before over coating.

### 3.4 APPLICATION

- A. Primer: Prime metal surfaces. Metal prime coat may be applied up to 1 hour prior to 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. Base coat shall be applied to the plywood at a rate of 64 square feet per gallon (1.47 m<sup>2</sup>/liter) resulting in a dry film thickness of 25 mils (.6 mm). Application shall be made

uniformly to avoid thin spots and care shall be taken to avoid pinholes and repair them should they occur.

- F. Following an overnight cure, apply top coat at a rate of 100 square feet per gallon (2.45 m<sup>2</sup>/liter).
- G. Immediately broadcast one gallon of aggregate uniformly into the wet coating per 100sq. ft. Ensure that the coating is back rolled. Allow to cure overnight.

### 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 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