



Pacific Polymers® Elasto-Deck BT Guide Specification

SECTION 07141
FLUID APPLIED WATERPROOFING

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PART 1 - GENERAL

1.1 SUMMARY

- A. Fluid applied waterproofing 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 Material Safety Data Sheets (SDS) for each product indicated.
- B. Samples:
 - 1. Submit 2 inch by 4 inch sample of fully cured waterproofing.
 - 2. Submit maintenance manual.

1.4 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Manufacturer of the waterproofing system shall have a minimum of 5 years' experience in the manufacture of fluid applied waterproofing.
 - 2. The Applicator shall be qualified in writing by the Manufacturer and shall have a minimum of 5 years' experience in application of fluid applied waterproofing.

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. 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.).

1.7 GUARANTEE

- A. Completed installation shall be guaranteed against defects of material and for a period of 5 years, beginning with date of substantial completion of the waterproofing system.
- B. Consult ITW Polymers Sealants North America, Inc. for warranty requirements prior to system installation.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. A. Fluid Applied Waterproofing: Pacific Polymers® Elasto-Deck BT, cold applied liquid, moisture-cured, monolithic polyurethane elastomeric waterproofing membrane, complies with ASTM C836.
 1. Horizontal Surfaces: Type I.
 2. Vertical Surfaces: Type II.
- B. Detail Fabric: Tie-Text Polyester Fabric
- C. Substrate Primer: DECKTHANE Primer or Elasto-Poxy Primer VOC.
- D. Metal/Flashing Primer: Elasto-Poxy Primer VOC.
- E. Sealant: PERMATHANE® SM7108, single-component, moisture-cured sealant mfg. by ITW Sealants North America.

2.2 TECHNICAL DATA

Property	Test Method	Type I	Type II
Viscosity (poise)	Brookfield	40± 5	350± 50 Viscometer
VOC Content (grams per liter minus exempt solvent) - Calculated		<80 g/l	<67 g/l
Weight per Gallon (Pounds, Kilograms)		10.10± .2, 4.50± 0.1	9.1± .2, 4.10± 0.1
Percent Solids (Weight, Volume)	ASTM D-2369-98	91 + 2, 87 + 2	91 + 2, 88 + 2
Tack free Time and 55% R.H.		12-16 hrs	12-16 hrs at 77°F (25°C)
Recoat Time and 55% R.H.		16-24 hrs	16-24 hrs at 77°F (25°C)
Hardness (shore A)	ASTM D2240-97	40 + 5	35 + 5
Tensile Strength (psi) (N/sq.m)	ASTM D412-98	300 + 10% 2.1	436 3.0
Percent Elongation	ASTM D-412-98	700 + 10%	700 + 10%
Water Vapor Transmission (grains/ hr/ sq.ft)	ASTM E-96-00 (procedure B) water method	0.72	0.72
Adhesion to Concrete	ASTM D-903-98	14.9 lb/in (2.79kg/cm) No peel/film break	19 lb/in (3.38kg/cm) No peel/film break

Hydrostatic Pressure Resistance	ASTM D-751-00		94 psi (0.65 N/sq.m)
Resistance to Decay	ASTM D-154	No surface defects	No surface defects
Moisture Vapor Transmission		N.av. (grains/hr/sq.ft)	1.563 (after decay test)
Flash Point		120°F (49°C)	150°F (66°C)
Dimensional Stability/Water Absorption [4-days immersion in water @ 50°C (122°F)]	CAN/CGSB-37-58-M86	4% change in volume dimension 2% change in mass	4% change in volume dimension 2% change in mass
Adhesion-in-Peel after water Immersion [24 hour immersion in water @ 50°C (122°F)]	CAN/CGSB-37-58-M86	No peel away from concrete	No peel away from concrete
Crack bridging (10 cycles)	CAN/CGSB-37-58-M86	No evidence of cracking or splitting or adhesion loss	No evidence of cracking or splitting or adhesion loss
Low Temperature Flexibility (-20°C)	CAN/CGSB-37-58-M86	No cracking	No cracking
Water Tightness	CAN/CGSB-37-58-M86	No evidence of leakage	No evidence of leakage

PART 3 - EXECUTION

3.1 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 25% moisture content.
- B. Metal: Metal surfaces shall be clean and free of oil, rust or other contaminants that can affect bond of coatings. Metal flashing shall be primed with Elasto-Poxy Primer VOC.
- C. Substrate conditions and surfaces to be coated shall be subject to examination and acceptance by Manufacturer and Applicator. Commencing of waterproofing work shall constitute acceptance.

3.2 PREPARATION

- A. Provide applicator with surfaces that are broom clean, dry, sound and free of voids, bug holes, rock pockets, honeycombs, protrusions, excessive roughness, foreign matter, frost, ice and other contaminants which may inhibit application or performance of the waterproofing membrane system
- B. Concrete: Surfaces to receive elastomeric waterproofing system shall be completely cleaned by sandblasting or blastac.
- C. Metal: Metal surfaces shall be dry, clean, and free of grease, oil, dirt, rust and corrosion. Other coatings and contaminants could affect bond of coating system.
- D. Prime metal surfaces with Elasto-Poxy Primer VOC.
- E. Cracks and Control Joints: Except for non-moving shrinkage cracks, all other cracks and joints shall be sealed with sealant and fabric re-enforced (Tie-TEX).
- F. Plywood: Plywood that is to receive waterproofing shall be exterior grade plywood, 5/8" (16 mm) thick minimum, with "A" side up, fastened with ring-shank nails. OSB and particle board are not acceptable as a substrate.

3.3 APPLICATION

- A. Pacific Polymers® Elasto-Deck BT (60 Mils DFT Thickness).
1. All cracks 1/16" and over must be V-Grooved and filled with PERMATHANE SM7108
 2. At intersections of membrane and vertical walls, columns, pipes and other penetrations, caulk a 3/8"-1/2" fillet bead at the meeting angle using PERMATHANE SM7108. Allow for a minimum overnight cure before applying Elasto-Deck B.T.
 3. Apply by, roller, trowel, brush or squeegee (consult Mfg. for Spray applications) the first coat of Elasto-Deck B.T. at a rate of 42.6 square feet per gallon
 4. After an overnight cure, apply a second coat of Elasto-Deck B.T. at the same 42.6 square feet per gallon to achieve a total dry film thickness of 60 mils.

- B. Pacific Polymers® Elasto-Deck BT (90 Mils DFT Thickness)
1. All cracks 1/16" and over must be V-Grooved and filled with PERMATHANE® SM7108.
 2. At intersections of membrane and vertical walls, columns, pipes and other penetrations, caulk a 3/8" – 1/2" fillet bead at the meeting angle using PERMATHANE SM7108. Allow for a minimum overnight cure before applying Elasto-Deck B.T.
 3. Apply by, roller, trowel, brush or squeegee (consult Mfg. for Spray applications) the first coat of Elasto-Deck B.T. at a rate of 42.6 square feet per gallon
 4. After an overnight cure (16-24 hours), apply a second coat of Elasto-Deck B.T. at the same 42.6 square feet per gallon to achieve a total dry film thickness of 60 mils.
 5. After a 24 hour cure, apply a third coat of Elasto-Deck B.T. at the same 42.6 square feet per gallon to achieve a total dry film thickness of 90 mils.
- C. Flood test: Follow ASTM D 5957. Plug drains on deck surfaces and use sand bags or other means to restrict runoff. Flood deck with water to depth of 2" (50 mm) and allow to stand at least 48 hours. As an alternative, Electronic Field Vector Mapping may also be used.

3.4 PROTECTION COURSE

Install protection course (PB4, J-Drain 700 or accepted equal) on cured membrane system, after testing, without delay, prior to back fill or topping so that the period of exposure is minimized.

END OF SECTION