



Pacific Polymers® Elasto-Deck BT H2O 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 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 coating 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°F. (5°C.) and lower than 100°F. (38°C.).

1.7 GUARANTEE

- A. Completed installation shall be guaranteed against defects of material and workmanship for a period of 5 years, beginning with date of substantial completion of the waterproofing system.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Fluid Applied Waterproofing: Pacific Polymers® **Elasto-Deck BT H2O**, cold applied liquid, fully reinforced, water-cured, monolithic polyurethane elastomeric waterproofing membrane that complies with ASTM C836.
 1. Horizontal Surfaces:
- B. Fabric: **Tie-TEX T272** Polyester Fabric
- C. Primer: **Elasto-Poxy Primer VOC**, for concrete substrates metal or metal flashing.
- D. Primer: **DECKTHANE Primer**, for concrete substrates and as an intercoat primer for ALL Elasto-Deck BT products. (Not for metal)
- E. Sealant: **Permathane® SM7108** a single-component, moisture-cured sealant or **Elasto-Thane 227/227R** a two component sealant.

2.2 TECHNICAL DATA

Property	Test Method	Result
Weight per Gallon (Pounds)		9.17
Pot Life		30 minutes
VOC Content		81 g/l
Tack free Time at 77°F (25°C) and 55% R.H.		8-12 hrs.
Hardness (Shore A)	ASTM D2280	25 ± 5
Tensile Strength (psi) (Without Tie-TEX 325)	ASTM D412	300
Tensile Strength (psi) (With Tie-TEX 325)	ASTM D412	770
Percent Elongation (Without Tie-TEX 272)	ASTM D-412	600% min
Percent Elongation (With Tie-TEX 272)	ASTM D-412	100%
Water Vapor Transmission (grains/ hr/ sq.ft)	ASTM E-96 (procedure B water method)	0.72
Adhesion to Concrete	ASTM D-903	8 lb./in (1.5 kg/cm) No peel/ film break
Bond Strength (Primed Concrete)	ASTM D-4541	300 psi

Hydrostatic Pressure Resistance	ASTM D-751	135 psi
Resistance to Decay	ASTM D-154	No surface defects
Tear Resistance (with Tie-TEX 325)	ASTM D-624	380 psi

2.3 MIXING INSTRUCTIONS

- A. Add a minimum of 1 pint of cold tap water to a maximum of 1 quart per 5 gallon container of Elasto-Deck BT H2O on the job site immediately prior to application. Use 1 quart when ambient temperatures are lower than 60°F, 1 pint when temperatures exceed 80°F. From 60°F to 80°F, the amount of water may range from 1 pint to 1 quart at the contractor's option.
- B. Work life will decrease with increased amount of water. Add correct amount of water and mix into a 5 gallon container of Elasto-Deck BT H2O using a Jiffy mixer on a drill 300-600 R.P.M. Mix for 3-5 minutes and pour entire contents in an area matching the prescribed coverage rate. Resulting work life varies with temperature and amount of water used. At 77°F, using 1 pint of water, work life is about 30 minutes.
- C. Priming: Use primer (Elasto-Poxy Primer VOC or DECKTHANE Primer) at the coverage rate recommended by the manufacturer.
- D. Application:
- E. Use notched squeegees for even distribution and controlled thickness.
- F. Coverage rates:
 1. 30 mils DFT = 46 sq.ft./gallon.
 2. 45 mils DFT = 32 sq.ft./gallon.
 3. 60 mils DFT = 23 sq.ft./gallon.

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 primer shall be used. Apply epoxy primer at approximately 225-250 square feet per gallon, and provide a minimum 2-3 hour cure time before proceeding. At no time shall materials be applied over concrete surfaces having a 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. Surfaces shall be clean and free of oil, dirt, grease, and contaminants which can interfere with adhesion of the coatings.
- B. Concrete: Surfaces to receive elastomeric waterproofing system shall be completely cleaned by sandblasting or blastrac.
- C. Flashing: Metal flashing shall be installed at locations where the horizontal deck joins a vertical surface and at deck penetrations. Flashing shall be primed with **Elasto-Poxy Primer VOC**.
- D. Cracks and Control Joints: Except for non-moving shrinkage cracks, all other cracks and joints shall be sealed with sealant.

3.3 APPLICATION

- A. Base Coat: Uniformly apply 60 wet mils of the freshly mixed **Elasto-Deck BT H2O** within 10 minutes from completion of mixing.
- B. Immediately install Tie-TEX fabric and allow it to absorb the **Elasto-Deck BT H2O** for 10-15 minutes at 77°F. Absorption will be faster at higher temperatures, and lower at lower temperatures.
- C. Overlap the mat by 6 inches, and make sure to apply an additional 35 wet mils over the 6", plus areas that are to be overlapped, as well as the adjacent areas.
- D. Use dry rollers with light pressure for an even lay of the mat and elimination of air pockets.
- E. Saturate Coat: After one hour (not to exceed 3 hours) apply another 30-60 wet mils of freshly mixed **Elasto-Deck BT H2O** over the **Tie-TEX 325** fabric within 10 minutes from completion of mixing. Ensure that no dry fabric is showing. (30 mils for a total 90 mil application, 60 mils for a total 120 mil application)
- F. Coverage shall be made uniformly in order to achieve complete saturation of the mat.

- G. Completed waterproofing system is approximately 90-120 mils.

3.4 INSPECTION

- A. The wet film thickness of each coat shall be checked during application by averaging numerous measurements taken with a film gauge and thickness shall be sufficient that when cured the dry film thickness will be as specified.
- B. 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.

3.5 PROTECTION COURSE

- A. 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