

# TECH-BOND™ TPO LVOC BONDING ADHESIVE

**DESCRIPTION:**

TECH-Bond™ TPO LVOC Bonding Adhesive is a low-volatile organic compound (“LVOC”) solvent-based adhesive designed specifically for bonding Duro-TECH™ TPO non-fleece membranes to approved substrates.

The adhesive may be used on the following substrates, after they have been properly prepared, as described in the Duro-TECH TPO Adhered Roofing Systems specification:

- Structural Concrete
- Lightweight Structural Concrete
- Lightweight Insulating Concrete
- Wood (Plywood, OSB, Lumber)
- Polyisocyanurate Insulation Boards
- Duro-Guard® Cover Boards
- Duro-Last® Vapor Barrier (without Sopramastic)
- Duro-Last Torch-Down Vapor Barrier (without Sopramastic)

**ORDERING:**

Adhesive is available in 5-gallon (18.9-L) pails.

- 5-gallon pail (18.9 L) (Item #1112-010T)

COVERAGE RATES		
	Per Pail	Per 100 ft <sup>2</sup>
<b>Roof Deck (Two-sided Application)</b>	225 –300 ft <sup>2</sup> (20.9 – 27.9m <sup>2</sup> ) finished coverage	0.33 –0.44 pail finished coverage
<b>Parapet (Two-sided Application)</b>	Same as Roof Deck	Same as Roof Deck

**STORAGE AND HANDLING:**

- **WARNING: EXTREMELY FLAMMABLE**  
Keep away from heat / sparks / open flames / hot surfaces. Keep away from ignition sources. **Do not smoke while applying.**
- Keep away from ignition sources.
- Store in original unopened containers at temperatures between 60° – 80° F (15.6° – 26.7° C) until ready for use.
- If exposed to lower temperatures, restore to room temperature prior to use.
- Storage below 50° F (10° C) will cause solids portion of adhesive to separate. To alleviate separation, bring adhesive to room temperature and stir to smooth state.



**SHELF LIFE:**

- Shelf life of one year can be expected if stored in original sealed container at temperatures between 60° – 80° F (15.6° – 26.7° C).

**PRECAUTIONS:**

- **WARNING: EXTREMELY FLAMMABLE**  
Keep away from heat / sparks / open flames / hot surfaces. **Do not smoke while applying.**
- Keep away from ignition sources.
- Read Safety Data Sheets (SDS) prior to using.
- Wear proper personal protective equipment, such as gloves and eye protection, per the SDS.
- Harmful or fatal if swallowed.
- Avoid breathing vapors. Use only in well ventilated areas.
- Cover tightly when not in use.

TECH-BOND LVOC BONDING ADHESIVE PROPERTIES		
<b>Weight</b>	9.2 lb/gal (1.1 kg/L)	47 lb/pail (21 kg/pail)
<b>Color</b>	Yellow	
<b>VOC Content</b>	< 250 g/L	
<b>Viscosity</b>	4000 – 6000 Centipoise	
<b>Base</b>	Polychloroprene Rubber	
<b>Solvents</b>	Acetone, toluene, methyl acetate, 4-chlorobenzotrifluoride	
<b>Solids</b>	22 – 23%	
<b>Specific Gravity</b>	1.1	

**INSTALLATION:**

## 1. General

- Do not exceed open time of one hour.
- Do not thin this product.
- Do not use for splicing.
- Do not use with fleece membranes.
- Do not apply adhesive where (hot-air) welding will be performed.
- **Do not allow adhesive to contact expanded polystyrene (EPS) or extruded polystyrene (XPS). Damage to EPS and XPS will occur. Squeegees must not be used when EPS or XPS are within the roofing system.**
- Apply to surfaces which are clean, smooth, dry and free of oil and grease.
- Stir adhesive vigorously, by hand, to achieve homogeneous mixture prior to application.
- Sweep the mating surface of the membrane with a stiff broom to remove excess dusting agent, if present, and remove other contaminants from the mating surface.
- Stir the adhesive thoroughly before and during use, achieving a uniform mix with no sediment on the bottom and no marbling evident. Apply adhesive evenly, avoiding globs and puddles, at about the same time to both the membrane and the receiving substrate to allow similar flash-off time.
- Do not apply adhesive over any lap area that will be spliced to adjacent membrane panels.
- Allow adhesive to flash-off until tacky. Touch the adhesive surface with a clean, dry finger to be certain that the adhesive does not stick or string. Push down and forward on the adhesive at an angle to ensure that the adhesive is ready throughout its thickness.
- If either motion exposes wet or stringy adhesive when the finger is lifted, then it is not ready for mating.
- **Flash off time will vary significantly depending on ambient conditions, and will be extended during cool, cloudy conditions. Use when ambient and substrate temperatures exceed 45° F (7.2° C).**
- Starting at the fold, roll the adhesive coated portion of the membrane into the adhesive coated substrate slowly and evenly to minimize wrinkles.

## 2. Roof Deck and Parapet

- a. Using a 3/8-inch (10 mm) medium nap solvent-resistant roller, apply adhesive evenly at a coverage rate of 45 – 60 ft<sup>2</sup>/gal (1.1 – 1.5 m<sup>2</sup>/L) to BOTH the backside of the membrane and to the substrate. This gives a net coverage rate of 60 ft<sup>2</sup>/gal (1.5 m<sup>2</sup>/L) per gallon. The coverage rate will vary depending upon the porosity of the substrate.
- b. Allow adhesive to dry approximately (5 – 10 minutes) until it does not stick or form strings when a dry finger is pushed into it and removed. Dry time will vary according to weather conditions.
- c. Open time, prior to adhering the membrane to the substrate, may extend up to 60 minutes. Apply the membrane to the substrate as soon as the adhesive is ready.
- d. Roll the adhesive -coated membrane onto adhesive -coated substrate slowly and evenly to avoid trapping air and to minimize wrinkles.
- e. Apply pressure by means of a heavy roller or push broom, to ensure proper bonding.
- f. Refer to the Duro-TECH TPO Adhered Roofing Systems specification for guidelines regarding membrane installation.

**CLEANING:**

- Wet adhesive can be cleaned with toluene.