

POWERply® Endure® BIO Adhesive



Low Odor, Two-Part, Biobased Polyurethane Adhesive for Roofing



FEATURES

- Biobased
- Catalyzed Cure
- High Solids
- Low VOC

BENEFITS

- Contains high percentage of rapidly renewable resource
- Faster cure times than similar one-component products
- 100% Solids
- Low odor, meets California VOC limits

DESCRIPTION

POWERply® Endure® BIO Adhesive is a two part urethane, 100% solids, biobased, asbestos free, virtually odor free, cold applied roof membrane adhesive and is a USDA Certified Biobased product.

BASIC USES

POWERply Endure BIO Adhesive is a cold process membrane interply adhesive for use with POWERply MB and BURmastic BUR roof systems. In addition, POWERply Endure BIO Adhesive may be used as the adhesive for BURmastic Composite Ply family membranes, and POWERply SBS sanded backed membranes as a vapor retarder adhesive or as part of the AlphaGuard MT Plus or AlphaGuard BIO Plus roof systems. POWERply Endure BIO Adhesive may also be used as a flashing adhesive.

Refer to the UL Roofing Materials and Systems Directory for applicable roof system configurations for fire resistance and wind uplift resistance.

PACKAGING

Each Part A & Part B kit yields 4 gallons (15.1 L).

Part A - 5 gallon container, with 3.2 gal (12.1 L) base.

Part B - 1 gallon container, with 0.8 gal (3.0 L) curative.

Also available in barrel kits; contact your local Tremco Roofing field representative for further info.

COLOR

Tan

GRADE

3/16" (4.8mm) V-Notched Serrated Squeegee and 1/4" nap roller. Can be spray applied using 7:1 ratio spray equipment.

POT LIFE

20-25 minutes, 77°F (25°C)/50% RH.

**Temperature dependent - Increasing temperature reduces expected pot-life.*

STORAGE LIFE

12 months in unopened containers. Recommended storage conditions are in an area sheltered from harsh weather conditions at temperatures ranging from 60-80°F (15-26°C) and low humidity. However, the unmixed components can withstand exposure to freezing conditions. Storage temperatures must not exceed 110°F (43°C). Do not store in direct sunlight.

APPLICATION

Please refer to Tremco Roofing installation guidelines for general application procedures and follow good roofing practices per NRCA.

Mixing: Use a heavy duty power drill with Jiffy Mixer attachment. Cordless drills are not recommended and may not properly mix the materials.

Mix Part A (Base) for 1 minute before adding Part B (Curative). After adding Part B, mix the combined materials for a minimum of two minutes, moving the mix blade from top to bottom. Make sure to mix areas around side walls and bottom of pail. Improper mixing will result in non-curing material.

Never fully invert empty pails in attempt to drain material. Final traces from sidewall of pail are typically not properly mixed. Using these final traces will result in non-curing material.



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APPLICATION CONTINUED

Acceptable Insulations:

TYPE*	MINIMUM THICKNESS**
Wood fiber (ASTM C208)	½" (13 mm)
Gypsum (ASTM C1177 or D1278)	¼" (6 mm)
Asphalt board	⅛" (3 mm)
Mineral wool (ASTM C726)	2" (25 mm)

*Insulation Board must be designated by manufacturer as suitable for roofing application.

**Minimum thickness for application within the Tremco roof system. Follow insulation manufacturer's instructions to obtain minimum thickness for spanning metal deck ribs.

Installation Procedures: Ensure substrates are smooth, clean, and dry prior to application. Existing structural concrete deck surfaces do not require priming. For new structural concrete decks, contact Tremco Technical Department for additional recommendations.

Starting at low point of roof, embed approved membranes/ply sheets in a full, uniform, and continuous application of POWERply Endure BIO Adhesive. Apply the adhesive by squeegee, spray or roller. If applying adhesive by squeegee, use a roller to backroll and even out the adhesive coverage. Use a weighted roller to press the membrane or ply sheets into place during application, to eliminate air pockets and ensure contact between the adhesive and membrane/ply.

Lap 4" (100mm) minimum; end laps 6" (150mm) minimum. Offset laps from base sheet laps. Stagger end laps 36" (approx. 1m) minimum

Apply pressure to side and end laps by roller to ensure complete and uniform adhesion. Adhesive will exude slightly past the membrane. Wipe excessive bleed from outside of lap, using a cloth or trowel. For POWERply MB granule surface membranes, apply loose granules into the remaining wet adhesive after wiping to cover remaining adhesive and provide a consistent, finished surface.

For areas where remaining traces of adhesive have been exposed for 72 hours or more, prime with Geogard Primer to assure proper adhesion of the next course of membrane adhesive or fluid applied membrane. Geogard Primer has a relatively short tack time; apply next course before the Geogard Primer film becomes tack free.

Do not allow base membrane(s) adhered in POWERply Endure BIO Adhesive to remain exposed to weathering for more than four (4) weeks (28 days). If base membrane must remain exposed for greater than four (4) weeks, laps must be heat welded or adhered with an approved adhesive.

Alternative lap/end lap seaming methods:

- Hot air welding
- Tremco LF Adhesive
- For both methods, keep adhesive off the lap area prior to seaming, and follow Tremco's written instructions as described in POWERply Installation Guide & product data sheets.

POWERply Endure BIO Adhesive may be used as a flashing adhesive with POWERply MB or Composite Ply family membranes. Apply adhesive to the back of the flashing membrane and press membrane into place. Mechanically attach flashing membrane along top edge to assure membrane will not slide prior to cure. Flashing height shall not exceed 18" (460mm).

- Interply & over concrete decks: 2 gal/100 sqft (0.8 L/m²)
- Over mechanically attached base sheets/laps: 3 gal/100 sqft (1.2 L/m²)
- Over mechanically attached insulation & mineral wool: 3 gal/100 sqft (1.2 L/m²)

Before product cures, clean surfaces/equipment with Isopropyl Alcohol.

- Product material temperatures must be above 45°F (7°C) when mixing.
- Do not mix at material temperature above 100°F (37.8°C) because pot life will be greatly reduced.
- Do not adhere to expanded polystyrene or extruded polystyrene.

COVERAGE RATE

CLEAN-UP

LIMITATIONS

POWERply® Endure® BIO Adhesive

LIMITATIONS CONTINUED

- Not to be used as an insulation adhesive, flood coat adhesive, or smooth roof coating.
- Do not apply to wet surfaces.
- Do not apply over solvent-based materials, such as roof mastic.
- Do not apply roof membranes adhered in solvent based adhesives over base ply(s) adhered in POWERply Endure BIO Adhesive.

PHYSICAL PROPERTIES

PROPERTY	TYPICAL VALUE	TEST METHOD
Density	11.1 lbs/gal (1.3 kg/L)	ASTM D1475
Biobased Content	71% min***	ASTM D6866
Indentation Hardness	88 Shore A	ASTM D2240
Volume Solids	100%	ASTM D2697
Weight Solids	100%	ASTM D1644
Volatile Organic Content (VOC)	1 g/L	ASTM D3960
Viscosity	2,500 - 5,500 cp (mPas)	ASTM D 2196

*** POWERply Endure BIO Adhesive is a USDA Certified Biobased product and is listed in the product catalog at www.biopreferred.gov

MAINTENANCE

Your local Tremco Roofing field representative can provide you with effective maintenance procedures which may vary, depending upon specific conditions. Periodic inspections, early repairs and preventative maintenance are all part of a sound roof program.

PRECAUTIONS

Users must read container labels and Safety Data Sheets for health and safety precautions prior to use.

TECHNICAL SUPPORT

Your local Tremco Roofing field representative, working with the Technical Service Staff, can help analyze conditions and needs to develop recommendations for special applications.



www.tremcoroofing.com
3735 Green Road
Beachwood, Ohio 44122
1.800.852.6013

50 Beth Neelson Drive
Toronto, Ontario M4H 1M6
1.800.668.9879

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