PERMATETM

Ultra-R Vapour Barrier

DESCRIPTION & USE

- Bi-laminate of aluminum poly-laminated foil and high strength kraft paper, reinforced with a tridirectional glass fibre scrim
- Layer of aluminum provides excellent resistance to moisture vapour transmission
- Glass reinforced kraft provides a tear resistant, protective wearing surface compatible with hot bitumen and most adhesives
- Designed for use in conventional low slope roof systems
- Ideal for use in buildings with high internal humidity located in colder climatic regions

FEATURES & BENEFITS

- **Ultra High Moisture Protection** provides exceptional protection from the damaging effects of internal vapour passing into the roof assembly.
- Full Reinforcement to better resist wind uplift forces and accidental tearing during construction.
- Resistant to Hot Bitumen will not melt or deteriorate when contacted with hot bitumen.
- Excellent Adhesion adheres well to hot bitumen and most insulation adhesives.
- Works with Mech. Fast. Insulation -Performance is not significantly impaired by mechanically fastened insulation or membrane.

TECHNICAL DATA

PERMATE™ ULTRA-R - PROPERTIES	
PROPERTY	TYPICAL RESULTS
MVTR (Unaged)	2.4 ng/Pa•s•m² (0.04 Perms)
MVTR (Aged)	3.6 ng/Pa•s•m² (0.06 Perms)
(ASTM E-96, Proc. A)	
Tensile Strength XD	10.2 kg / cm (57.0 lbs / in)
Tensile Strength MD	7.1 kg / cm (40.0 lbs / in)
Shrinkage	Negligible
Flexibility @ 15°C (5°F)	Excellent
Weight	0.170 kg / m ² (3.5 lbs / 100ft ²)
Roll Sizes	127 cm x 146.3 m (50" x 480')



Approvals & Compliances CAN/CGSB-51.33-M89, Type I.

Limitations

- Though used in fire-rated assemblies, Permate Ultra- R^{TM} is flammable. Keep torch flames away from Permate Ultra- R^{TM} .
- Permate Ultra-R[™] should be kept dry during construction. The adhesive characteristics of the membrane surface will be impaired if it is wet.

INSTALLATION

Preparation

- Store the vapour barrier at the job site in a clean, dry location above the ground. Protect rolls from cuts, nicks and other abuse.
- Only install as much vapour barrier (and insulation) as can be completely protected by the roofing membrane each day. Do not install vapour barrier in rain or inclement weather.
- 3. Broom clean the deck prior to installation, removing all dirt, debris, oil and grease. Substrate must be free of all sharp or protruding objects that could tear the vapour barrier membrane.

Installation

4. If applying to a fluted steel deck, vapour barrier must be installed parallel to the flutes, with all side laps centered over an upper flute. Side laps must be lapped a minimum of 2" (50 mm), ends; 6" (150 mm).

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- 5. FULLY ADHERED APPLICATION: Apply continuous parallel ribbons of Permate Adhesive on 6" (15 cm) centers over the area to be covered by the vapour barrier roll (centered along each flute on steel decks) at the rate of 0.16 l / m² (0.4 gallons/ 100 ft²). Ensure that one ribbon of adhesive is applied to the top of any previous roll's edge to seal the lap. Unroll the vapour barrier into the adhesive, ensuring a positive contact. Roll the side laps with a roller to ensure a good seal. Repeat this procedure for all subsequent rolls, sealing all end laps with a minimum 6" (150 mm) wide strip of Permate Adhesive.
- 6. LOOSE LAID APPLICATION (Acceptable only if ballasting or mechanically fastening insulation over vapour barrier): Unroll the first vapour barrier roll and immediately install the (ballasted or mechanically fastened) roof insulation over top, leaving at least one foot (30 cm) of vapour barrier exposed on all sides. Using a brush or roller, liberally apply a minimum 2" (50 mm) wide strip of Permate Adhesive to the upper surface of the side laps and a 6" (150 mm) wide strip of Permate Adhesive to the upper surface of the end laps. Unroll the next vapour barrier roll, overlapping the previous roll the required distance to form the seam. After rolling the seam area to ensure a good seal, continue positioning insulation over the lap and onto the adjacent vapour barrier roll. Repeat this procedure for the remaining area to be covered.
- 7. FLASHING: Apply Permate[™] Adhesive to the substrate and adhere the vapour barrier tightly around the detail. Cut pieces of vapour barrier (minimum 2" (50 mm) wider on all sides than the affected area) may be adhered in liberal applications of adhesive to ensure a tight seal. At perimeters, carry the vapour barrier up to the upper level of the roof insulation and adhere it to the underside of the roof membrane with a membrane compatible adhesive. Use good flashing practices to ensure a moisture tight seal.
- 8. EXPANSION JOINTS: Ensure that Permate Adhesive is applied to either edge of the expansion joint. Carry vapour barrier over the expansion joint but provide sufficient slack to allow for the maximum expected expansion of the joint. Press the vapour barrier into the adhesive on either side of the joint.

SAMPLE SPECIFICATION

Vapour barrier shall be a bitumen resistant Type I vapour barrier in accordance with CAN/CGSB 51-33-M89, consisting of an kraft, poly and aluminum foil lamination, reinforced throughout with a tri-directional glass fibre scrim. Vapour Barrier shall demonstrate a typical moisture vapour transmission rate of [2.4 ng/Pa•s•m²; 0.04 perms] according to ASTM E 96, Procedure A and a typical tensile strength of 7.1 kg/cm² (40.0 lbf/in²). The vapour barrier shall be [seamed; applied] with the manufacturer's approved adhesive in strict accordance with the manufacturer's installation instructions.

ACCEPTED PRODUCT: Permate[™] Ultra-R[™] Vapour Barrier by Lexcor (www.lexcor.net, Tel: 800.268.2889, E-Mail: info@lexcor.net).

