

## LEXSHIELD

## AVB MEMBRANES AND FLASHING TAPES

## DESCRIPTION &amp; USE

Self-adhered Air and Vapour Barrier Membrane for use in walls and roofs. Cross-laminated, high density polyethylene filmbacked with a proprietary high tack adhesive and a silicone release liner (4", 6", 9", 12", 18" and 36" rolls) or with a plastic release liner (54" roll).

Compatible with most fluid applied air barriers and insulation adhesives.

**Air Barrier Uses:**

- Cavity walls
- As a transition membrane for flashing window and door openings

**Vapour Barrier Use:**

- Flat roofs

## FEATURES &amp; BENEFITS

**Excellent Air and Vapour Barrier Properties** - Surpasses the industry's most rigorous air and vapour resistance tests.

**Flexible** - Remains leak-free, even when subjected to differential expansion and contraction forces or minor cracking in the underlying substrate.

**Tear & Puncture Resistant** - High density film used provides excellent resistance to accidental cuts and tears during installation.

**No Primer Required** - Super tacky adhesive formulation sticks well to virtually any surface; mechanical fastening is not required at plane or direction changes.

\*: When installing Lexshield on porous/fibrous surfaces, a test strip should be done to ensure if a primer is required for proper adhesion of membrane.

**Apply in Cold Temperatures** - Can be applied in temperatures as low as -20°C (-4°F)\*\*

\*\* : When installing LEXSHIELD in temperatures below 0°C, a test strip should be done to ensure if a primer is required for proper adhesion of membrane.

**Seals Around Fasteners** - LEXSHIELD self-seals around screw and nail penetrations\*\*\*

\*\*\*Penetrated by numerous roofing screws into 22 ga. steel deck, LEXSHIELD showed no leakage after 24 hours submersion under 25 mm of water. Full test procedures and results available from LEXCOR.

**Economical** - LEXSHIELD'S state-of-the-art technology offers improved benefits over traditional Air Barrier Systems at a lower installed cost!

**Approved Substrates**

For proper adhesion, surfaces must be reasonably smooth, clean, dry and free of all loose dirt, dust, debris, mold, mildew, corrosion, loose or flaky coatings, greases, oils, frost or dew. Subject to the above, the following substrates are approved for use with LEXSHIELD:

- Concrete: Poured-in-place or pre-cast<sup>1</sup>
- Block & Brick: Smooth surface concrete blocks or clay bricks, with flat or slightly concave mortar joints.
- Gypsum: Gypsum boards, Dens-Deck Prime
- Glass
- Wood: Plywood, OSB, etc. that is dry, structurally sound and rot free<sup>2</sup>
- Metals: Corrosion, oil and grease free steel, aluminum, copper, zinc, etc.
- Painted and Stained Surfaces, provided paint and/or stain has completely dried and is well adhered to the substrate. For other surfaces not on this list, consult with LEXCOR'S technical department.

<sup>1</sup> Cured for a minimum of 28 days.

<sup>2</sup> Due to the relative humidity of the North American climate, it is strongly recommended to prime wood substrates prior to applying LEXSHIELD.



## COMMERCIAL BUILDING PRODUCTS

Ontario & Western Canada 1.800.268.2889 / Quebec & Atlantic Canada 1.800.363.2307

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### TECHNICAL DATA

LEXSHIELD Properties		
Properties	Test Method	Typical Result
Air Permeance, @75 Pa P.D.* @ 300 Pa P.D.*	ASTM E2178-03	0.0023 L/s/m <sup>2</sup> 0.0074 L/s/m <sup>2</sup>
Vapour Permeance **	ASTM E-96	10.7 ng (Pa·s·m <sup>2</sup> ) 0.19 Perms
Total Membrane Thickness		0.26 mm (10-mil)
Tensile Strength at Break	ASTM D-882	49 kPa (7100 psi)
Elongation at Break, min	ASTM D-882	100%
Toyo Impact (Spherical Head)	ASTM D-781 VSF Mtd	130 kg·cm (728 lb·in)
Puncture Propagation Resistance	ASTM D-2582	4.0 kg (8.8 lbs)
Tongue Tear Resistance	ASTM D-1938	2.5 kg (5.5 lbs)
Graves Tear Resistance	ASTM D-1004	3.1 kg (6.8 lbs)
<b>Adhesive Strength</b> 180° Adhesive Peel Strength tested to stainless steel test panel After 20 minutes After 24 hours After 6 weeks @ 22°C (72°F) After 1 week @ 70°C (158°F) After 1 week @ 35°C (95°F), 95% RH		212 g/cm (19 ozf/in) 313 g/cm (28 ozf/in) 413 g/cm (37 ozf/in) 480 g/cm (43 ozf/in) 379 g/cm (34 ozf/in)
Shear Strength, 2.2psi (0.32 kPa) @ 22°C (72°F)		6 hours
Lap Strength, after 24 hours	180° peel	190 g/cm (17 ozf/in)
Min. Application Temperature		-20°C (-4°F)
Service Temperature Range		-40° to 93°C (-40° to 200°F)
Flame Spread Index	ASTM E84	5
Smoke Development Index	ASTM E84	5

Average of five samples at indicated Pressure Difference (P.D.). Minimum Air Barrier requirement is maximum 0.02 L/s/m<sup>2</sup> air leakage @ 75 Pa pressure difference.

\*\* Qualifies as a Type I vapour retarder in accordance with CAN/CGSB-51.22-M89.

### PACKAGING

Roll Dimensions	Weight
10.2 cm x 22.86 m (4" x 75')	0.54 kg (1.2 lbs)
15.2 cm x 22.86 m (6" x 75')	0.91 kg (2.0 lbs)
22.9 cm x 22.86 m (9" x 75')	1.27 kg (2.8 lbs)
30 cm x 22.86 m (12" x 75')	1.72 kg (3.8 lbs)
45.7 cm x 22.86 m (18" x 75')	2.81 kg (6.2 lbs)
91.4 cm x 22.86 m (36" x 75')	5.35 kg (11.8 lbs)
137.2 cm x 68.58 m (54" x 225')	18 kg (39 lbs)

### CAUTIONS & LIMITATION

LEXSHIELD should not be used in applications where the membrane would be subjected to standing water or hydrostatic pressure (LEXSHIELD may be used as a temporary roof membrane if the seams are sealed with a compatible lap sealant or waterproof sealing tape. Since the effective application of a sealant or a waterproof tape is beyond our control, LEXCOR assumes no responsibility for leaks, consequential damages or failure of the product to perform as desired in this application).

While possessing some UV inhibitors, LEXSHIELD is not meant for long-term direct exposure to sunlight or UV radiation. Maximum direct exposure should not exceed 16 weeks.

### SAMPLE SPECIFICATION

#### 1.0 General

Reference Standards - National Building Code (Canada) ASTM E2178-03 Air Permeance CAN/CGSB-51.22-M89, "Vapour Barrier Sheet ... for use in Building Construction"

#### 2.0 Products

AIR/VAPOUR BARRIER: Air/Vapour barrier shall be a 'Peel and Stick' Membrane consisting of a cross laminated, high density polyethylene film laminated to a high tack, all temperature adhesive. Vapour Barrier shall demonstrate a typical moisture vapour transmission rate of [10.7 ng/Pa·s·m<sup>2</sup>; 0.19 perms] according to ASTM E 96, Procedure A, a typical tensile strength in excess of 48 kPa in accordance with ASTM D-882 and a minimum 180° peel strength of 400 g/cm after 6 weeks adhered to stainless steel at 22°C. Vapour Barrier membrane shall be approved by the manufacturer for installation down to -20°C (-4°F) without the aid of primers.



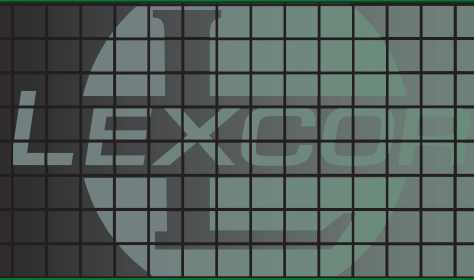
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ACCEPTED Product: LEXSHIELD Air/Vapour Barrier Membrane, by Lexcor (URL: [www.lexcor.net](http://www.lexcor.net), Tel: 800.268.2889, E-Mail: [info@lexcor.net](mailto:info@lexcor.net)). Use with compatible lap sealant or waterproof sealing tape where required.

### 3.0 Air/Vapour Barrier Execution (Installation Instructions)

Protect Air/Vapour Barrier rolls from damage while on the jobsite. Store above the ground in a dry location.

Surfaces to be covered by the air/vapour barrier shall be clean, dry and free of all loose dirt, dust, debris, corrosion, greases, oils, frost or dew. Freshly poured concrete or masonry surfaces must be cured for a minimum of 14 days. Curing compounds, if used, must be clear resin based without waxes or oils. Do not apply Air/Vapour Barrier during rain or sleet or when the ambient temperature is below -20°C (-4°F). Temporarily seal any exposed leading edges with LAP SELANT at the end of the day's work. Remove temporary sealant prior to proceeding.

Align Air/Vapour Barrier Membrane in position. Lap all membrane rolls, pieces and patches a minimum of 50 mm (2.0"). If installing the rolls horizontally, lower rolls shall be overlapped with higher rolls, shingle fashion. Remove release paper\* and neatly adhere the membrane to the substrate. Avoid leaving air bubbles, wrinkles or lap voids in the membrane during installation. Large wrinkles and air bubbles and all lap voids must be cut out, laid flat and properly patched with vapour barrier patches. Roll the air/vapour barrier heavily with a counter top roller after installation to ensure full contact.

Temporarily seal any exposed leading edges with a compatible lap sealant or waterproof tape at the end of the day's work. Remove temporary sealant/tape prior to proceeding.

#### AIR BARRIER

Seal the Air Barrier System to the below grade waterproofing membrane, roof vapour retarder, windows, doors, curtain walls and all protrusions using manufacturer approved details and techniques. Seal around all brick ties, penetrations and voids smaller than 5 mm (1/4") with the air barrier manufacturer's approved sealant.

#### VAPOUR BARRIER

Ensure the Vapour Barrier Membrane is well sealed to all roof protrusions and at all details. Extend vapour barrier up above insulation layer at curbs and parapets and tie in to the Air Barrier or underside of roof membrane, as shown in the drawings. Use a manufacturer approved tie-in method.

\*: Overlap edge has 6 mm (1/4") dry section for easier release paper separation (applicable on 18" 36" & 54" rolls).



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