

LEXCAN

HI-FLEX EPDM

Reinforced Membrane

DESCRIPTION & USE

Lexcan Hi-Flex EPDM Reinforced Membrane consists of twin thicknesses of Ethylene Polypropylene Diene Monomer synthetic rubber vulcanized to both sides of a reinforcing polyester scrim. The membrane is available in 1.1 mm (45 mil), 1.5 mm (60 mil) and 1.9 mm (75 mil) thicknesses and in sheet sizes up to 3.05 m (10 ft.) wide by 60.96 m (200 ft.) long.

Hi-Flex EPDM Reinforced is a waterproofing membrane that is widely used in exposed roof applications, non-exposed waterproofing applications and geomembrane liner applications. In roofing, Hi-Flex EPDM Reinforced Membrane is the only acceptable EPDM membrane for mechanically fastened applications. It may also be used in lieu of Hi-Flex's standard, unreinforced EPDM membrane wherever superior tensile strength and puncture resistance is preferred. In this regard, it may be substituted for standard EPDM in the following roof designs:

- Adhesive Adhered EPDM Roof System
- Ballasted EPDM Roof System
- Protected Membrane EPDM Roof System

In waterproofing, Hi-Flex EPDM Reinforced membrane can be used in both pre-applied (blind side or "tanking") and post-applied applications to waterproof foundations, basement walls, tanks and floors. Lexcan's Waterproofing Design Guide and sample specifications has further information on using Hi-Flex EPDM Reinforced Membrane in these applications.

Finally, Hi-Flex EPDM Reinforced Membrane can be used as a primary or secondary liner for reservoirs, holding ponds, tunnels and erosion control applications. Refer to Lexcan's Geomembrane Design Guide and sample specifications for further information on using Hi-Flex EPDM Reinforced Membrane in these applications.

FEATURES & BENEFITS

- **Superior Weatherability** - Hi-Flex EPDM possesses outstanding weathering, ozone, cold temperature and ultraviolet (sunlight) resistance, making it ideal for long-term exposed applications. Hi-Flex EPDM out performs most all other alternative materials including bitumen based products and PVC.
- **Superior Strength** - The scrim reinforced membrane offers superior tensile strength, tear and puncture resistance over non-reinforced membranes.

- **Compatibility** - Hi-Flex EPDM Reinforced is widely used as a primary waterproofing liner in a variety of roofing, waterproofing and geomembrane applications.
- **Proven Durability** - For over 47 years, Hi-Flex EPDM has been protecting thousands of buildings, in environments ranging from the arctic tundra of Baffin island to the deserts of the middle east.

APPLICATION

The installation of reinforced EPDM is similar to unreinforced EPDM in each of Lexcan's standard design systems. Refer to the appropriate Design Guide and Sample Specification for the particular application you are interested in.

CAUTIONS & LIMITATIONS

- Membranes are slippery when wet. Use caution when walking on wet membranes.
- Use proper stacking procedures to ensure sufficient stability of the materials.

APPROVALS & COMPLIANCES

Note: Lexcan Hi-Flex EPDM Reinforced Membrane meets or exceeds the minimum requirements set forth by ASTM D4637 for Type II reinforced EPDM single-ply roofing membranes.

Lexcan Hi-Flex EPDM roof systems have also been tested and meet the requirements of:

- Factory Mutual Research Corp.
- Underwriters' Laboratories Inc.

For further information on specific listings and approvals, refer to the appropriate listing book or consult your Lexcan representative.

INSTALLATION

Hi-Flex EPDM is installed by professional roofing contractors trained and approved by Lexcan. Refresher seminars are regularly held to update contractors on the latest techniques and developments.

WARRANTY

Superior installation quality and long term performance is guaranteed with comprehensive Lexguard warranty packages. To provide the best assurance of a quality installation, projects are normally inspected both during installation and after completion by a Lexcan technical representative.

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LEXCAN SINGLE PLY ROOFING SYSTEMS

Ontario and Western Canada
1 877 792.8308



Quebec and Eastern Canada
1 800 363.2307

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Reinforced Membrane

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TECHNICAL DATA

Physical Property	SPEC (PASS)	1.14 mm (45-mil)	1.52 mm (60-mil)	1.91 mm (75-mil)
Tolerance on Nominal Thickness, ASTM D751	±10%	±10%	±10%	±10%
Thickness Over Scrim, ASTM D4637 Annex	0.381 mm (0.015")	0.406 mm (0.016")	0.508 mm (0.020")	0.810 mm (0.032")
Weight,	—	1.3 kg/m ² (0.27 lbm/ft ²)	1.9 kg/m ² (0.39 lbm/ft ²)	2.3 kg/m ² (0.48 lbm/ft ²)
Breaking Strength, ASTM D751 Grab Method	400 N (90 lbf)	623 N (140 lbf)	623 N (140 lbf)	787 N (177 lbf)
Ultimate Elongation, ASTM D412 Die C	250%**	480%**	480%**	500%**
Tearing Strength, ASTM D751 B Tongue Tear	45 N (10 lbf)	311 N (70 lbf)	311 N (70 lbf)	311 N (70 lbf)
Brittleness Point, ASTM D2137	-45°C (-49°F)*	-45°C (-49°F)*	-45°C (-49°F)*	-45°C (-49°F)*
Resistance to Heat Aging* , Properties after 4 weeks @ 116°C (240°F)				
Breaking Strength ASTM D751	355 N (80 lbf)	823 N (182 lbf)	823 N (182 lbf)	823 N (182 lbf)
Ultimate Elongation ASTM D412 Die C	200%**	250%**	250%**	250%**
Linear Dimensional Change, max, ASTM D1204	±1.0%	-1.0%	-1.0%	-1.0%
Ozone Resistance* ASTM D1149 - Condition after exposure to 100 ppbm Ozone in air for 168 hours @ 40°C (104°F)	No Cracks, specimen wrapped around 3 in. mandrel	No Cracks, specimen wrapped around 3 in. mandrel	No Cracks, specimen wrapped around 3 in. mandrel	No Cracks, specimen wrapped around 3 in. mandrel
Resistance to Water Absorption* ASTM D471 - After 7 days immersion @ 70°C (158°F) Change in mass, max	+8%, -2%**	5.5%**	5.5%**	5.5%**
Water Vapour Permeance* max ASTM E 96 (Proc. B or BW)	0.10 Perms	0.02 Perms	0.02 Perms	0.02 Perms
Fungi Resistance ASTM G21	N/A	0 (No growth)	0 (No growth)	0 (No growth)
Resistance to Outdoor (Ultraviolet) Weathering* ASTM G155 - Xenon-Arc, total radiant exposure at 0.70 W/m ² irradiance, 80°C black panel temperature	No Cracks No Cracking 7,560 kJ/m ² 3,000 hrs	No Cracks No Cracking 35,320 kJ/m ² 14,000 hrs	No Cracks No Cracking 35,320 kJ/m ² 14,000 hrs	No Cracks No Cracking 35,320 kJ/m ² 14,000 hrs
At 0.35 W/m ² irradiance, 80°C black panel temperature	6,000 hrs	28,000 hrs	28,000 hrs	28,000 hrs

*Not a Quality Control Test due to the time required for the test or the complexity of the test. However, all tests are run on a statistical basis to ensure overall long-term performance of the sheeting.

**Specimens to be prepared from coating rubber compound, vulcanized in a similar method to the reinforced product.

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

LEED INFORMATION

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