

LEXCAN

HI-FLEX EPDM

Fleece-Backed HA Membrane

DESCRIPTION

Lexcan Hi-Flex Fleece-backed HA EPDM Membrane is a fleece-backed EPDM membrane specifically designed for exposed or non-exposed adhered roofing and waterproofing applications. It is constructed of 1.1 mm (45 mil) or 1.5 mm (60 mil) thick EPDM (Ethylene Polypropylene Diene Monomer) synthetic rubber bonded to a proprietary 1.1 mm (45 mil) fleece backing. Membrane sheets are available in black and white.

USE

Hi-Flex Fleece-backed HA EPDM Membrane is designed to be adhered to an acceptable substrate with a mopping of hot type III or IV roofing asphalt or an approved modified roofing asphalt. It may also be adhered to acceptable substrates with cold process adhesives such as Lexcan's water based BA-160 Bonding Adhesive or solvent based BA-90 Bonding Adhesive. Substrates must be approved to accept the bonding medium being considered (i.e.: hot asphalt). Note: Lexcan has other fleece-backed membranes specifically designed for application with cold process adhesives. Contact Lexcan for more information on our Hi-Flex Fleece-backed CA EPDM membranes.

Hi-Flex Fleece-backed HA EPDM Membrane is used in two of Lexcan's new construction design systems, namely:

- Asphalt adhered EPDM Roof System (conventional)
- Asphalt adhered EPDM Protected Membrane System

Refer to Lexcan's Design Guides and sample specifications for further information on using Hi-Flex Fleece-backed EPDM Membrane in these applications.

Hi-Flex Fleece-backed HA EPDM Membrane is also an excellent "cap sheet" that can be used to quickly recover existing smooth surface roofs such as built-up roofs (where the gravel has been completely removed) or modified bitumen roofs. This represents an inexpensive way to add many years to the life of a roof while avoiding the high cost of removing the existing materials.

FEATURES & BENEFITS

- **Superior Performance & Longevity** - The membrane's upper wearing surface is Hi-Flex EPDM; a material with exceptional weathering, ozone, ultra-violet and cold temperature resistance that has been proven in use for over 45 years.
- **Heavy Duty Fleece Backing** - adds toughness, durability and enhanced puncture resistance.
- **Extra Waterproofing Protection** - Reinforced by the fleece, the asphalt bonding medium can act as a secondary waterproofing layer underneath the EPDM membrane. This also creates superior wind uplift performance
- **Pre-applied Seam Tape** - Improves reliability and consistency, as well as productivity enhanced seaming. (Optional)

CAUTIONS & LIMITATIONS

- Application with hot asphalt is for trained roofing or waterproofing professionals only.
- Membrane must stay dry before installation. If the fleece gets wet, remove moisture with a wet vac system.
- Avoid heavy applications or overlaps of asphalt.
- The maximum height the membrane should be adhered up a vertical surface is 46 cm (18"). Adhesive adhered standard or reinforced EPDM membrane should be used in lieu of Hi-Flex Fleece-backed EPDM Membrane on higher vertical surfaces.
- Membrane is slippery when wet. Use caution when walking on wet membranes.

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.

INSTALLATION AND SPECIFICATION

For complete information on specifying or installing Hi-Flex Fleece-backed HA EPDM Membrane, refer to our Asphalt adhered EPDM Roof System or Asphalt adhered EPDM Protected Membrane System design guide and sample specifications.

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TECHNICAL DATA

Physical Property	Test Method	SPEC (PASS)	Black	White
Tolerance on Nominal Thickness	ASTM D751	±10%	±10%	±10%
Thickness Over Fleece, min 2.29 mm (90-mil) 2.67 mm (105 mil)	ASTM D4637 Annex	.762 mm (.03 mil) 1.14 mm (.045 mil)	1.14 mm (.045 mil) 1.52 mm (.060 mil)	1.52 mm (.060 mil)
Weight 2.29 mm (90-mil) 2.67 mm (105-mil)	—	—	0.29 kg/m ² (1.4 lbm/ft ²) 0.38 kg/m ² (1.9 lbm/ft ²)	0.42kg/m ² (2.1 lbm/ft ²)
Breaking Strength , min 2.29 mm (90-mil), 2.67 mm (105-mil)	ASTM D751 Grab Method	400 N (90 lbf)	890 N (200lbf)	890 N (200 lbf)
Elongation , Ultimate, min	ASTM D412	300%**	480%**	500%**
Tearing Strength , min 2.29 mm (90-mil), 2.67 mm (105-mil)	ASTM D751 B Tongue Tear	45 N (10 lbf)	200 N (45 lbf)	200 N (45 lbf)
Puncture Resistance 2.29 mm (90-mil) 2.67 mm (105-mil)	ASTM D5635	—	17.5 Joules 20Joules	— 25 Joules
Puncture Resistance 2.29 mm (90-mil) 2.67 mm (105-mil)	FTM 101C Method 2031	—	280 lbf 292 lbf	280 lbf
Puncture Resistance 2.29 mm (90-mil) 2.67 mm (105-mil)	ASTM D120	—	21 lbf 22 lbf	19 lbf
Brittleness point , m ax, °C (°F)	ASTM D2137	-45°C (-49 °F)	-55°C (-67 °F)	-55°C (-67 °)
Resistance to Heat Aging [*] Properties after 4 weeks @ 116 °C (240 °C) for black, 1 week @ 116 °C (240 °F) for White	ASTM D573			
Breaking Strength , min Elongation, Ultimate, min, Linear Dimensional Change, max,	ASTM D751 ASTM D412 ASTM D1204	355 N (80lbf) 200%** ±-1.0%	890 N (200lbf) 225%** -0.7%	890 N (200 lbf) 255%** -0.7%
Ozone Resistance [*] Condition after exposure to 100 ppm Ozone in air for 168 hours @ 40 °C (104 °F) Specimen wrapped around 3-inch mandrel	ASTM D1149	No cracks	No cracks	No cracks
Resistance to Water Absorption [*] After 7 days immersion @ 70 °C (158 °F) Change in mass, max, 7.5cm	ASTM D471	+8, -2%**	+2.0%**	+3.6%**
Resistance to Outdoor (Ultraviolet) Weathering [*] Xenon-Arc, 17,640 kJ/m ² (Black) and 7, 560 kJ/m ² (White) Total radiant exposure at 0.70 irradiance, 80°C black panel temp.	ASTM G155 ASTM D4637 Conditions	No cracks No crazing	No cracks No crazing	No cracks No crazing

* 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 long-term performance of the sheeting.

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

Radiative Properties for ENERGY STAR, Cool Roof Rating Council (CRRC) and LEED For White Fleece-Backed EPDM

ENERGY STAR initial solar reflectance	Solar Spectrum Relectometer	0.84
ENERGY STAR solar reflectance after 3 years	Solar Spectrum Relectometer (after cleaning)	0.80
CRRC initial solar reflectance	ASTM C1549	0.76
CRRC solar reflectance after 3 years	ASTM C1549 (uncleaned)	0.64
CRRC initial thermal emittance	ASTM C1371	0.90
CRRC initial thermal emittance after 3 years	ASTM C1371 (uncleaned)	0.87
LEED thermal emittance	ASTM E408	0.91
SRI (Solar Reflectance Index)	ASTM E1980	105

LEED INFORMATION

	Black	White
Pre-consumer Recycled Content	0%	0%
Post-consumer Recycled Content	0%	0%
Solar Reflectance Index	0-1	105

APPROVALS & COMPLIANCES

Lexcan Hi-Flex EPDM roof systems have 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.

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LEXCAN SINGLE PLY ROOFING SYSTEMS

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