

LEXCAN

# HI-FLEX EPDM

## Standard Membrane

### DESCRIPTION & USE

Lexcan Hi-Flex EPDM Standard Membrane is a synthetic rubber of vulcanized ethylene propylene diene monomer. Possessing excellent weathering, ozone and ultra-violet resistance characteristics, EPDM membrane has long been established as an ideal roofing and waterproofing material. In conjunction with a Lexcan design system featuring the super strong Lexseam™ adhesive/tape seam, Hi-Flex EPDM offers building owners the security of a proven, long-lasting roof. Optional - this membrane is also available with the option of pre-applied seam tape.

Hi-Flex EPDM Standard Membrane is available in 1.1 mm (45 mil), 1.5 mm (60 mil) and 2.3 mm (90 mil) thicknesses and in sheet sizes up to 15.24 m (50 ft.) wide by 45.72 m (200 ft.) long. 1.1 mm (45 mil) and 1.5 mm (60 mil) thicknesses are available as fire retardant membranes that are specially formulated to inhibit the spread of flame and meet or exceed code body testing criteria for the fire-retardant roofing membranes.

Hi-Flex EPDM Standard Membrane may be used in three different roof design systems, namely:

- Adhesive Adhered EPDM System
- Loose Laid & Ballasted EPDM System
- Protected Membrane EPDM System

The reader is referred to Lexcan's System Data bulletins and system specifications for further information on Lexcan design systems. Hi-Flex EPDM Standard Membrane may also be used as a waterproofing liner in reflecting ponds, reservoirs and chemical containment tanks. Lexcan technical representatives should be consulted for assistance in determining the suitability of EPDM for a particular chemical liner application.

### FEATURES & BENEFITS

- **Superior Weatherability** - Hi-Flex EPDM out-performs traditional built-up, modified bitumen and thermoplastic membranes in long-term weatherability. Highly resistant to ozone or ultra-violet deterioration, a properly installed Hi-Flex EPDM roof may well outlast the building it is installed on!
- **Flexibility** - Hi-Flex EPDM remains flexible even in temperatures as low as -45°C. Structural expansion or contraction that would crack or tear other roofing materials does not affect EPDM.
- **Proven Durability** - Hi-Flex EPDM Roofs have been successfully installed on over 25,000 projects across the country and protected buildings for over 47 years.



- **The Backing of Lexcan** - Canada's premier supplier of single-ply roofing systems. No other company can match Lexcan's breadth and background of experience and success in Canadian roofing.

### APPLICATION

Hi-Flex EPDM Standard Membrane can be either fully adhered to a substrate with Hi-Flex EPDM BA-90 Bonding Adhesive or loose laid and covered with ballast. Adjoining sheets are spliced together using the Lexseam™ tape adhesive method. For complete instructions on the installation of a Hi-Flex EPDM or waterproofing system, please refer to the appropriate design guide and sample specification, available from our website or your Lexcan representative.

### CAUTIONS & LIMITATIONS

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

### 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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### TECHNICAL DATA

Property	Test Method	Spec	Typical Value
<b>Tolerance on Nominal Thickness</b>	ASTM D412	±10%	±10%
<b>Weight</b>			
1.1 mm (45 mil)		1.4 kg/m <sup>2</sup> (0.29 lbm/ft <sup>2</sup> )	
1.5 mm (60 mil)		1.9 kg/m <sup>2</sup> (0.39 lbm/ft <sup>2</sup> )	
2.3 mm (90 mil)		2.9 kg/m <sup>2</sup> (0.59 lbm/ft <sup>2</sup> )	
<b>Tensile Strength</b> , min	ASTM D412	9 MPa (1305 psi)	11.0 MPa (1600 psi)
<b>Ultimate Elongation</b> , min	ASTM D412	300	45 mil = 480% 60 mil = 465%
<b>Tear Strength</b> , min	ASTM D624 (Die C)	26.3 lbf/in (150 kN/m)	35.0 lbf/in (200 kN/m)
<b>Factory Seam Strength</b> , min	Modified ASTM D816	Mem. Rupture	Mem. Rupture
<b>Resistance to Heat Aging*</b> Properties after 28 days @ 116°C (240°F)	ASTM D573		
Tensile Strength, min	ASTM D412	8.3 MPa (1205 psi)	45 mil = 1500 psi 60 mil = 1450 psi
Ultimate Elongation, min	ASTM D412	200	45 mil = 225% 60 mil = 280%
Tear Strength, min	ASTM D624	21.9 lbf/in (125 kN/m)	37.6 lbf/in (215 kN/m)
Linear Dimensional Change, max	ASTM D1204	±1.0	45 mil = -0.4 60 mil = -0.5
<b>Ozone Resistance*</b> Condition after exposure to 100 pphm Ozone in air for 168 hours @ 40°C (104°F) Specimen is at 50% strain	ASTM D1149	No cracks	No cracks
<b>Brittleness Temp.</b> , max	ASTM D746	-45°C (-49°F)	-45°C (-49°F)
<b>Resistance to Water Absorption*</b> After 7 days immersion @ 158°F (70°C) Change in mass, max	ASTM D471	+8, -2	+2.0
<b>Water Vapour Permeance*</b>	ASTM E96 (Proc. B or BW)	0.10 perms	45mil=0.05perms 60mil=0.03perms
<b>Flexibility/Torsion DMA</b>	ASTM D5279-08	N/A	225 MPa @ -40°F
<b>Fungi Resistance</b>	ASTM G21	N/A	(0) No Growth
<b>Resistance to Outdoor (Ultraviolet) Weathering*</b> Xenon-Arc, total radiant exposure at 0.70 W/m <sup>2</sup> irradiance, 80°C black panel temperature  At 0.35 W/m <sup>2</sup> irradiance, 80°C black panel temperature	ASTM G155	No Cracks No Cracking 7,560 kJ/m <sup>2</sup> 3,000 hrs  6,000 hrs	No Cracks No Cracking 41,580 kJ/m <sup>2</sup> 16,500 hrs  33,000 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.

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

<b>Pre-consumer Recycled Content</b>	5%
<b>Post-consumer Recycled Content</b>	0%
<b>Solar Reflectance Index</b>	9

### APPROVALS & COMPLIANCES

Note: Lexcan Hi-Flex EPDM Membrane meets or exceeds the minimum requirements set forth by ASTM D4637 for Type I non-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.

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