

Is your rust resistant metal roof rusting?

Does melting snow and ice leak through your metal roof?

Solve your problems once and for all with a

Lexcan Metal Roof Retrofit System

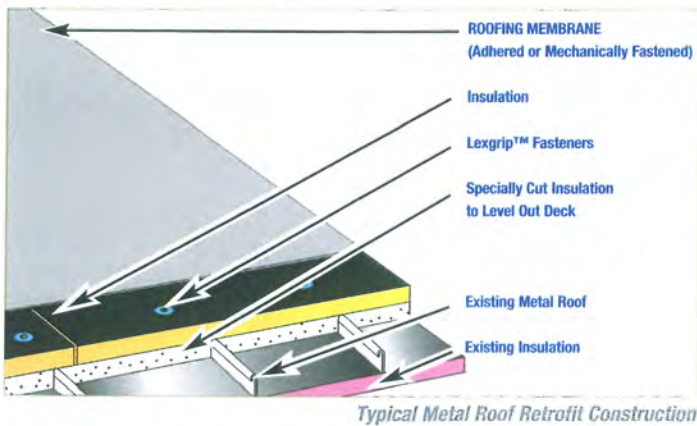


Performing Roofing Solutions, since 1968

Lexcan, Canada's leader in single ply roofing for over 40 years, has two systems specifically designed for extending the service life of metal roofs. Lexcan's EPDM metal roof retrofit system offers the proven performance history of EPDM - one of the world's most durable roofing materials. Lexcan's newer TPO system features a membrane with a wider selection of colours and advanced heat-welded seam technology. Both will completely rejuvenate your roof and provide years of problem-free performance.

How it's done ...

On standing seam roofs, insulation is cut to fit precisely between the metal upstands, level with their top. A second layer of insulation is then mechanically fastened overtop to present a smooth surface for the single ply membrane. The EPDM or TPO membrane is then either mechanically fastened (MF) or fully adhered (FA) in place. Adjacent membrane panels are seamed together to present a uniform, watertight surface from the rake to the eave.



Typical Metal Roof Retrofit Construction

The Benefits

A Totally Rejuvenated Roof - Lexcan's metal roof retrofit systems can easily double the service life of your roof!

Long-Lasting Proven Performance - Lexcan's single ply membranes have proven themselves on tens of thousands of installations around the world, ranging from the deserts of Algeria to the Canadian high artic.

Thermal Upgrade - Included with your new Lexcan roof is a thermal insulation upgrade. This should quickly translate into noticeably reduced heating and cooling costs!

Attractive - Eliminate unsightly rust stains with a new, smooth surface Lexcan roof.

Never Rusts - Your new EPDM rubber or TPO membrane roof system will never rust!

Easy to Fix - Should physical damage ever occur, the membrane can usually be permanently repaired in a matter of minutes - at a fraction of the cost of traditional roof systems.

Heat Reflectivity - A white, EnergyStar™ listed TPO membrane

will reflect the summertime heat, often leading to additional energy savings. Even un-air-conditioned spaces can be significantly cooler, resulting in increased worker comfort and productivity.

The Backing of Lexcan - Canada's premier supplier of single ply membranes for almost 40 years. No one can match Lexcan's breadth of experience in single ply roofing.

Your Choices Membrane Choice

Lexcan EPDM and TPO membrane have been widely used around the world and proven in use for many years.

Applications range from industrial and commercial roofing to waterproofing and lining reservoirs. Example Job lists are available for each type of system.

Lexcan EPDM (Ethylene Polypropylene Diene Monomer) membrane is formulated from the same synthetic rubber compound used widely in automobile tires. It is an extremely long-lasting and durable material, able to withstand long-term exposure to UV, ozone and weathering. Standard (unreinforced) EPDM membrane is available in 1.1 mm, 1.5 mm and 2.3 mm thicknesses while Lexcan's Reinforced membrane is available in 1.1 mm and 1.5 mm thicknesses. Recommended membranes for metal roof retrofit applications are the 1.5 mm standard membrane or the 1.1 mm reinforced.

EPDM ROOFING MEMBRANE TECHNICAL DATA

PROPERTY	TEST METHOD	SPECIFICATION	TYPICAL VALUE
Thickness, Nominal	ASTM D 412	±10%	±10%
Tensile Strength	ASTM D 412	9 MPa (1305 psi) min.	10.7 MPa (1550 psi) typ.
Elongation, Ultimate	ASTM D 412	300% min.	480%
Tear Resistance	ASTM D 624 Die C	26.3 kN/m (150 lbf/in) min.	35.0 kN/m (200 lbf/in) min.
Factory Seam Strength, min.	D 816 (modified)	Stronger than Membrane	Stronger than Membrane
Resistance to Heat Aging*		ASTM D 573	
Properties after 28 days@ 116°C			
Tensile Resistance	ASTM D 412	8.3 MPa (1205 psi) min.	10.3 (1500 psi) min.
Elongation, Ultimate	ASTM D 412	200 % min.	225 %
Tear Resistance	ASTM D 624	21.9 kN/m (125 lbf/in.)	37.6 kN/m (215 lbf/in.)
Linear Dim. Change	ASTM D 1204	+ 1.0% max.	-0.4%
Ozone Resistance*		ASTM D 1149	
Conditioned after exposure to 100 pphm			
Ozone in air for 7 days @40°C Specimen is at 50% strain			
Brittleness Temp.*	ASTM D 746	-45°C max.	-55°C
Resistance to Water	ASTM D 471	-2% to +8% max.	+2%
Absorption* After 7 days Immersion @ 70°C Change in mass.			
Water Vapour	ASTM E 96	5.8 (0.1)	2.9 (0.05)
Permeance* max,	(Proc B or BW)	ng/Pa·s·m ²	(gr/ft ² ·h·in·Hg)
Resistance to Outdoor (Ultraviolet) Weathering.	ASTM D 4637	No Cracks	No Cracks
		No Cracking	No Cracking
Xenon-Arc, 7560 kJ/m ² total radiant exposure at 0.70 W/m ² irradiance, 80°C black panel temp.			

Lexcan's TPO (ThermoPlastic Olefin) is an internally reinforced heat weldable rubber membrane available in white, grey and tan colours. As a thermoplastic rubber, the membrane can be heat welded to itself, providing a seaming method that is exceptionally strong. Available thicknesses are 1.1 mm, 1.5 mm and 2.0 mm.

LEXCAN TPO ROOFING MEMBRANE TECHNICAL DATA

PROPERTIES	TEST METHOD	PROPERTY AFTER AGING ¹
Thickness Tolerance	ASTM D-751	± 10% ± 10%
Thickness over Scrim	ASTM D-4637	1.1 mm: 0.381 mm (0.015")
	Optical	1.5 mm: 0.508 mm (0.020")
Elongation at Fabric Break, %	ASTM D-751	25% typical
Breaking Strength	ASTM D-751,	1.0 kN (225 lbf) min.
	Grab Method	1.5 kN (340 lbf) typical
Tearing Strength	ASTM D-751	245 N (55 lbf) min.
	(B Tongue Tear)	578 N (130 lbf) typical
Puncture Resistance	FTM 101 C,	1.1 mm: 1.11 kN (250 lbf) min.
	Mtd. 2031	1.5 mm: 1.33 kN (300 lbf) typ.
Linear Dimensional Change	ASTM D-1204	± 0.5 % max.
	(6 hrs @ 70°C)	- 0.2% typical
Brittleness Point	ASTM D-2137	- 40°C min.
		- 46°C typical
Ozone Resistance	ASTM D-1149 (168 hrs @ 100pphm)	No Cracks
Water Absorption	ASTM D-471 (7 days @ 70°C)	+ 4.0% max.
		+ 2.0% typical
Water Vapour Permeance	ASTM E-96	0.10 Perms max 0.05 Perms typical
Accelerated Weathering	ASTM G-155 (0.70 W / m ²)	No Cracks
Xenon-Arc, 17,640 kJ / m ² total radiant, 10 X Magnification	(80°C B.P.T.)	No loss of breaking or tearing strength
Solar Reflectance, % 65% req'd for Energy Star®	albedo x 100	White: 75 min., 87 typical
	Spectrum Reflectometer	Tan: 65 min., 70 typical
Resistance to Microbial Growth	ASTM D-3274 S. Florida, 2 yrs.	9 - 10 typical
Field Seam Strength	ASTM D-1876	4.4 kN/m (25 lbf/in.) min.
		10.5 kN/m (60 lbf/in.) typical
Emittance, IR (LEEDS)	ASTM E-408	0.92 typical

¹ Aging conditions are 28 days at 116°C (240°F) equivalent to 400 days at 80°C (176°F) for breaking strength, elongation, tearing strength, ozone and puncture resistance.

Lexcan backs each membrane type equally and each has an excellent performance history. In metal roof retrofit applications the choice between membrane types is often reduced to one simply of colour: black EPDM or white, grey or tan TPO. Contact your Lexcan representative if you would like more detailed information on our EPDM and TPO membranes.

Installation Method Choice

In the Fully Adhered (FA) application method, the membrane is fully adhered to the insulation (or existing flat metal roof) with a special bonding adhesive. The result is a smooth, contour hugging surface.

The Mechanically Fastened (MF) option can only be used with the TPO membrane. In this method, the membrane is mechanically secured through the existing metal roof into the structural purlins with special, heavy duty fasteners. This alternative usually provides some cost savings in comparison to the fully adhered method. On roof decks that are not perfectly flat, however, minor wrinkles may be left in the membrane after installation. These wrinkles are generally not noticeable from a distance and will disappear with time.



"A Metal Roof Before Retrofit"

Independently Tested

Lexcan EPDM and TPO membrane meet all relevant industry standards and have been tested and approved by Underwriter's Laboratories, Factory Mutual and the Canadian Construction Material Centre. White TPO is also recognized by the EnergyStar™ program as a roof that can help reduce energy consumption. Information on these and other third party approvals are available through your Lexcan representative.

Warranties

Lexcan fully backs its roof systems with warranties up to twenty years. Warranties are only offered on a job-by-job basis and certain pre-conditions apply. For complete information on available warranty options, talk to your Lexcan representative.

The Next Step

Sounds like we have the solution to your metal roof problems? Contact Lexcan or your nearest Lexcan Authorized Applicator. We'll help you choose the system that is best suited for your building and arrange for a competitive quotation. Call us today at (800) 268-2889!



Metal Roof Retrofitted with EPDM



Projects

EPDM and TPO membrane has been employed on just about every type of commercial, institutional or industrial building. Applications include schools, hospitals, defense installations, retail stores, manufacturing plants, distribution warehouses, government facilities, restaurants, hotels, theaters - the list goes on and on.

EPDM

- Bank of Montreal
- Home Depot
- Government of Canada
- Canada's Wonderland
- Loblaws
- Canadian Tire
- Proctor & Gamble

TPO

- McCain Foods
- Abbot Laboratories
- Wal-Mart Inc.
- Lamb-Weston
- IBM
- Sears Canada
- Bell Canada
- Sun-X Properties
- Tim Horton's
- Coca Cola

For complete single source responsibility call Lexcan today.

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