

Get the Royal Edge Advantage with RPI

Royal Edge LS EPDM Membrane

ROYAL EDGE EPDM MEMBRANE

DESCRIPTION

RPI Royal Edge LS EPDM is a .045mil and .060 mil Low Slope EPDM membrane typically installed as a Fully Adhered Membrane, Mechanically Attached, or Ballasted System using RPI Royal Edge Bonding Adhesives, approved insulation boards, and other RPI accessories. Royal Edge LS EPDM is available in widths up to 50', and lengths up to 200'. Royal Edge LS membrane is available as a FR (fire-retardant) membrane that meets or exceeds code body testing criteria for Fire Retardant roofing membranes.

THE RPI ROYAL EDGE ADVANTAGE

WARRANTIES

RPI offers the longest Membrane Only Warranty in the roofing industry. Up to 40 Years when installed as a Fully Adhered System over an RPI approved substrate/assembly.

RPI Membrane Only Warranties are free and available for residential as well as commercial installations.

RPI Labor and Material Warranties are available for commercial/industrial installations through the RPI Registered Applicators Program.

DURABILITY

After decades of proven in-field performance, RPI EPDM is still performing, showing little signs of aging while maintaining all the characteristics that have made EPDM the roofing industries longest performing single-ply membrane. RPI Royal Edge EPDM remains dimensionally stable and flexible down to -40° F (5° C).

The excellent resistance to weathering and high elongation qualities result in superior resistance to hail damage. (UL 2218 Class 4).

BEST COLD WEATHER MEMBRANE

Dark membranes are better suited to cold climates with more heating days than cooling days. Buildings and homes that are properly insulated will benefit from solar heat gain resulting in reduced snow and ice build-up. Lower heating costs reduce the carbon footprint.

FASTER - EASIER APPLICATION

RPI's LS EPDM wide sheets mean less seaming and lower installation labor costs.

ENVIRONMENTAL

The Life Cycle Assessment for EPDM, TPO, PVC, and Modified Bitumen using EPA's TRACI model determined:

- EPDM has the lowest global warming potential
- EPDM has the lowest acid rain impact
- EPDM has the lowest contribution to smog

APPROVALS

RPI Royal Edge LS EPDM is a .045 mil and .060 mil Low Slope EPDM membrane is designed to be installed as part of an FM Approved and UL Classified Assembly.

Typical Properties and Characteristics

Physical Property	Test Method	Spec. (Pass)	Typical	
			.045	.060
Tolerance on Nominal Thickness, %	ASTM D412	±10	±10	±10
Tensile Strength, min, psi (MPa)	ASTM D412	1305 (9)	1600 (11.0)	1600 (11.0)
Elongation, Ultimate, min, %	ASTM D412	300	480	465
Tear Strength, min, lbf/in (kN/m)	ASTM D624 (Die C)	150 (26.3)	200 (35.0)	200 (35.0)
Factory Seam Strength, min	Modified ASTM D816	Membrane Rupture	Membrane Rupture	Membrane Rupture
Resistance to Heat Aging* Properties after 28 days @ 240°F (116°C)	ASTM D573			
Tensile Strength, min, psi (MPa)	ASTM D412	1205 (8.3)	1500(10.3)	1450 (10.0)
Elongation, Ultimate, min, %	ASTM D412	200	225	280
Tear Strength, min, lbf/in (kN/m) Linear	ASTM D624	125 (21.9)	215 (37.6)	215 (37.6)
Dimensional Change, max, %	ASTM D1204	±1.0	-0.4	-0.50
Ozone Resistance* Condition after exposure to 100 pphm Ozone in air for 168 hours @ 104°F (40°C) Specimen is at 50% strain	ASTM D1149	No Cracks	No Cracks	No Cracks
Brittleness Temp., max, °F (°C)*	ASTM D746	-49 (-45)	-49 (-45)	-49 (-45)
Resistance to Water Absorption* After 7 days immersion @ 158°F (70°C) Change in mass, max, %	ASTM D471	+8, -2	+2.0	+2.0
Water Vapor Permeance* Max, perms	ASTM E 96 (Proc. B or BW)	0.10	0.05	0.03
Flexibility/Torsion DMA	ASTM D5279-08	N/A	225 MPa @ -40°F	225 MPa @ -40°F
Fungi Resistance	ASTM G21	N/A	0 (No Growth)	0 (No Growth)
Resistance to Outdoor (Ultraviolet) Weathering* Xenon-Arc, total radiant exposure at 0.70 W/m ² irradiance, 80°C black panel temperature	ASTM G155	No Cracks No Cracking 7,560 kJ/m ² 3,000 hrs	No Cracks No Cracking 41,580 kJ/m ² 16,500 hrs	No Cracks No Cracking 41,580 kJ/m ² 16,500 hrs
At 0.35 W/m ² irradiance, 80°C black panel temperature		6,000 hrs	33,000 hrs	33,000 hrs
Weight, lbs/ft ² (kg/m ²)				
45-mil			0.29 (1.43)	
60-mil			0.39 (1.91)	

*Not a quality control test due to the time required for the test or the complexity of the test. All tests are run on a statistical basis to ensure overall long-term performance of the membrane.

Note: Roofing Products International Royal Edge Non-Reinforced EPDM Membrane meets or exceeds the minimum requirements set forth by ASTM D4637 for Type I non-reinforced EPDM single-ply roofing membranes.

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.

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INSTALLATION

RPI Royal Edge LS EPDM membrane is a non-Reinforced sheet of cured, single-ply EPDM membrane designed for use in new or re-roof low slope Fully Adhered, Mechanically Attached, Ballasted, and Non-Penetrating Batten Systems using RPI Royal Edge Bonding Adhesives, approved insulations, cover boards, and accessories.

RPI Royal Edge Fully Adhered System

Approved insulation boards are mechanically attached or adhered to the roof deck using an approved insulation adhesive. The RPI membrane is unrolled into position and allowed to relax. The membrane is folded back and the bonding adhesive is applied to the substrate and membrane. After the appropriate "flash-off" time, the membrane is rolled onto the substrate and broomed into place using a stiff push broom.

All seams are completed with RPI Seam Tape Primer and RPI Seam Tape. Flashings and other details are made using RPI Royal Edge EPDM accessories.

In hot dry conditions, an additional coating of adhesive may be required over porous substrates.

When the adhesives have "flashed off", mate the adhered surfaces together. Leaving the adhesives exposed "open" during high heat will "cook out" the adhesive and require another coat of adhesive. Do not leave the adhered surfaces open and exposed to any windblown dust, dirt, or other debris.

STORAGE

Store in unopened original packaging in a cool, dry, space. Do not store in areas exposed to the sun, rain, or snow.

Royal Edge CSFR EPDM membrane with factory applied tape has a shelf life of one year.

Available LS EPDM Roll Sizes

Width	Length
16.5 ft., 20 ft., 25 ft.	25 ft., 50 ft., 100 ft.

APPLICATION PRECAUTIONS

Cold Weather

Membrane is slippery when wet. Use precaution when walking on wet, ice, or snow covered membrane.

When using adhesives in cold weather temperatures (50° F or below), air moisture content may have an adverse affect on the performance of the adhesives and tapes. Do not attempt to use adhesives or tape products in cold temperatures unless the sky is clear and sunny with little or no wind.

Store adhesives and flashing products at room temperature or in rooftop warming boxes for 24 hours prior to application. The use of a heat gun to warm seaming and/or flashing areas prior to priming and seaming is acceptable. Take care to not overheat, burn or blister the membrane.

Do not attempt installing Primers, Tapes, or Flashings until any frost has completely "burnt off" and all surfaces are dry.

Do not attempt to install Primers, Tapes, or Flashings when any sign of condensed moisture becomes apparent on the adhesives or flashings.

Hot Weather

Store membranes with factory laminated tape and any flashings with or without tape in cool, dry conditions. Avoid prolonged storage temperatures in excess of 90° F (32° C).

RPI Pre-Taped EPDM

RPI LS EPDM is available with pre-installed RPI Seam Tape. The Seam Tape is applied as part of the manufacturing process in a quality controlled environment using state of the art equipment that enables the installer to save time, labor, and materials while ensuring the highest possible level of system performance.

When using RPI LS EPDM membrane, the membrane must be cleaned using RPI Membrane Cleaner before applying RPI Seam Tape Primer. The Seam Tape Primer must be applied with a scrub pad.



See UL Roofing Materials and Systems Directory R10073

LEED® Information

Pre-consumer Recycled Content	5%
Post-consumer Recycled Content	0%
Manufacturing Location	Carlisle, PA
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