RPI Roofing Products International

Get the Royal Edge Advantage with RPI

Royal Edge CFR EPDM Membrane

ROYAL EDGE EPDM

DESCRIPTION

RPI Royal Edge CFR EPDM membrane is a clean, talc free membrane sheet typically installed as a Fully Adhered EPDM System using RPI Royal Edge Bonding Adhesives over RPI approved insulation boards. The membrane is available in .045 mil (1.14 mm), 60mil (1.52 mm), and 90 mil (2.29 mm) thicknesses with widths up to 10' (3m) and lengths up to 100' (30m). Royal Edge CFR membrane 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. Upto 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 thru 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 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 Clean Sheet means less preparation time is required for seams and flashings. Seam Tape Primer can be applied with a roller on new RPI CFR membranes without having to clean the membrane, saving time and labor.

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 CFR EPDM is a .045 mil, .060 mil, and .090 mil EPDM membrane 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
Tolerance on Nominal Thickness, %	ASTM D412	±10	±10
Tensile Strength, min, psi (MPa)	ASTM D412	1305 (9)	1600 (11.0)
Elongation, Ultimate, min, %	ASTM D412	300	465
Tear Strength, min, lbf/in (kN/m)	ASTM D624 (Die C)	150 (26.3)	200 (35.0)
Factory Seam Strength, min	Modified ASTM D816	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)	1450 (10.0)
Elongation, Ultimate, min, %	ASTM D412	200	280
Tear Strength, min, lbf/in (kN/m) Linear	ASTM D624	125 (21.9)	215 (37.6)
Dimensional Change, max, %	ASTM D1204	±1.0	-0.5
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
Brittleness Temp., max, °F (°C)*	ASTM D746	-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
Water Vapor Permeance* Max, perms	ASTM E 96 (Proc. B or BW)	0.10	0.03
Flexibility/Torsion DMA	ASTM D5279 -08	N/A	225 MPa @ -40°F
Fungi Resistance	ASTM G21	N/A	0 (No Growth)
Resistance to Outdoor (Ultraviolet) Weathering* Xenon-Arc, total radiant exposure at 0.70 W/m² irradiance, 80°C black panel temperature	ASTM G155	No Cracks No Crazing 7,560 kJ/m² 3,000 hrs	No Cracks No Crazing 41,480 kJ/m² 16,500 hrs
At 0.35 W/m² irradiance, 80°C black panel temperature		6,000 hrs	33,000 hrs
Weight, lbs/ft² (kg/m²) 45-mil 60-mil 90-mil			 0.29 (1.43) 0.39 (1.91) 0.59 (2.86)

*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.

Roofing Products International, Inc. 57460 Dewitt St. Elkhart, IN 46517 800-628-2957 Fax: 574-294-3450 www.rpiroyaledge.com

RPI Roofing Products International

Get the Royal Edge Advantage with RPI

Royal Edge CFR EPDM Membrane

ROYAL EDGE EPDM MEMBRANE

INSTALLATION

RPI Royal Edge CFR EPDM membrane is a non-Reinforced, talc free, clean sheet of cured, fire-retardant single-ply EPDM membrane designed for use in new or re-roof low slope Fully Adhered roofing applications using RPI Royal Edge Bonding Adhesives, approved insulations, and cover boards.

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.

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). 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 CFR EPDM membrane with factory applied tape has a shelf life of one year.

Available CFR Roll Sizes

Width	Length
10 ft.	25 ft., 50 ft., 100 ft.

RPI PRE-TAPED EPDM

RPI Clean Fire Retardant 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 CFR EPDM membrane, RPI Seam Tape Primer may be applied with a hand roller.

FM APPROVED

CLASSIFIED C UL US

Membrane for Roofing Systems
As to an External Fire Exposure Only
See UL Roofing Materials and Systems Directory
R10073

LEED® Information

Pre-consumer Recycled Content	5%
Post-consumer Recycled Content	0%
Manufacturing Location	Carlisle, PA
Solar Reflectance Index	9

Roofing Products International, Inc. 57460 Dewitt St. Elkhart, IN 46517 800-628-2957 Fax: 574-294-3450 www.rpiroyaledge.com