



Single Ply Roofing Systems (EPDM) Specification SE4RM-(T)/SE6RM-(T)/SE7RM-(T)

Mechanically Attached Reinforced EPDM Single Ply Roofing System

For use over Johns Manville (JM) insulation or approved decks on inclines up to 6:12

For Regions 1, 2 and 3

Materials per 100 sq. ft. (9.3 sq. meters) of roof Area

EPDM Reinforced Membrane	105 sq. ft. (9.8 sq. meters)
EPDM Color Coating	1 gal. (3.8 liters)

Materials per 100 lin. ft. (30.5 m) of Side Lap Splice (for FM Global Approved Systems, on Steel Decks)

2" (50 mm) Locking Plate	200 pcs.
Appropriate JM Fastener	200 pcs.
6" (150 mm) EPDM Seam Tape	10'-14' (3 m - 4.3 m)
EPDM Tape Primer/Wash	0.04 gal. (0.15 liters)

Approximate installed weight: 37.5 - 45 lbs. (17 - 20.4 kgs./sq.)

General

This specification is for use over any type of approved structural deck which provides a suitable surface to receive the membrane and which can adequately retain the required mechanical fasteners.

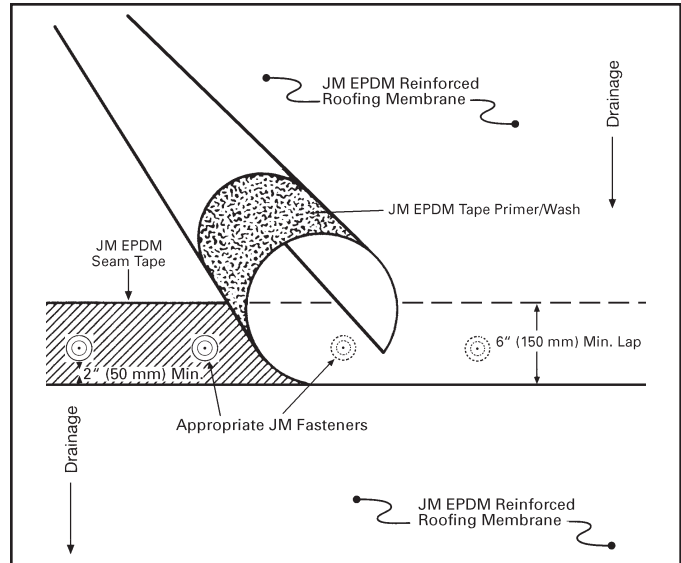
This specification is also for use over JM roof insulations which provide a suitable surface for the EPDM membrane. Insulation should be installed in accordance with the appropriate JM Insulation Specification detailed in the current JM Single Ply Roofing Systems Manual. This specification can also be used in certain reroofing applications.

Design and installation of the deck and/or roof substrate must result in the roof draining freely, to outlets numerous enough and so located as to remove water promptly and completely. Areas where water ponds for more than 48 hours are unacceptable and will not be eligible for a JM Roofing System Guarantee.

Note: All general instructions contained in the current JM Single Ply Roofing Systems Manual shall be considered part of this specification.

Flashings

Flashing details can be found in **Section 17** of the current JM Single Ply Roofing Systems Manual.



Application

Unroll and unfold the membrane to its fullest width. Move the membrane into place without stretching. When possible, begin the installation at the highest point of the project area, working to the lowest point and making sure the seams do not buck water. Allow a minimum of 30 minutes before fastening or splicing so that the membrane can relax and release any tension induced by packaging and handling. Visually inspect the membrane for any flaws or damage which would interfere with the acceptable application or performance of the EPDM membrane. Apply the adjoining sheets in the same manner, lapping the edges a minimum of 6" (150 mm). Sheets should be laid out in an offset pattern, with a minimum of 3 feet (0.9 m) between adjacent end laps. Laps should be constructed with the uphill sheet overlapping the adjoining sheet in a shingle manner to avoid any laps opposing natural drainage.

Whenever possible, the EPDM roofing membrane should be installed so that the long dimension of the sheet is perpendicular to the roof slope. Adjoining sheets shall overlap a minimum of 6" (150 mm). The ends of adjacent membrane sheets should be offset a minimum of 3" (80 mm), allowing for a minimum 6" (150 mm) end lap. On steel decks, the sheets must be installed with the side seams perpendicular to the top flanges of the deck.



Membrane Securement

To mechanically secure the membrane to the substrate, the edge of the sheet that forms the bottom side of the lap is mechanically attached. Secure the membrane along the preprinted blue line that is approximately 3" (80 mm) from the edge of the sheet, with the required EPDM fastener and plate, spaced a maximum of 12" (300 mm) on center. The minimum distance between the edge of the fastener plate and the edge of the membrane must be 2" (50 mm).

The method and degree of membrane securement is determined by the desired wind uplift resistance, which is based on local wind uplift conditions and characteristics. The Single Ply Roofing Industry (SPRI) has issued guidelines to assist the designer in its "WIND LOAD DESIGN GUIDE FOR LOW SLOPED FLEXIBLE MEMBRANE ROOFING SYSTEMS."

Information can also be obtained from local building codes and from FM Global Loss Prevention Data Sheet 1-29, "ROOF DECK SECUREMENT AND ABOVE-DECK ROOF COMPONENTS."

For FM Global Class 1-60 approval over steel decks, a 10' (3.1 m) wide sheet is used and is fastened along the 6" (150 mm) wide side laps with #15 EPDM Fasteners and EPDM Locking Plates, spaced 6" (150 mm) o.c. Fastener rows, therefore, are 9'-6" (2.9 m) apart.

For FM Global Class 1-90 approval, a 7' (2.1 m) wide sheet is used and is fastened along the 6" (150 mm) wide side laps with the above fasteners, spaced 6" (150 mm) o.c. Fastener rows, therefore, are 6'-6" (2 m) apart. Per FM Global requirements, an approved fastener must be driven to ensure that the fastener is engaging the top flange of the steel deck.

Perimeter Attachment

At the perimeter, a 54" (1.4 m) wide sheet is installed over the substrate in the same manner as the field membrane sheets. The perimeter membrane width from base flashing attachment line to the field membrane attachment line must be between 3' 6" (1.1 m) and 4' 6" (1.4 m) wide.

As an option, a 7' or 10' (2.1 m or 3.1 m) wide sheet may be used at the perimeter, secured to a 6" (150 mm) wide Peel & Stick EPDM Reinforced Termination Strip (RTS). Install the RTS beneath the membrane sheet 3'-6" (1.1 m) to 4'-6" (1.4 m) from the perimeter, and secure with #14 EPDM Fasteners and 2" (50 mm) EPDM Locking Plates, spaced 12" (300 mm) o.c. maximum. Clean the underside of the membrane with EPDM Tape Primer/Wash or other approved method, and bond the membrane to the Peel & Stick RTS as would be done for a lap splice.

Lap Splicing

Splice all side and end laps per detail EL-1T.

Surfacing

If desired, EPDM Color Coating may be applied to the surface of the EPDM membrane.

