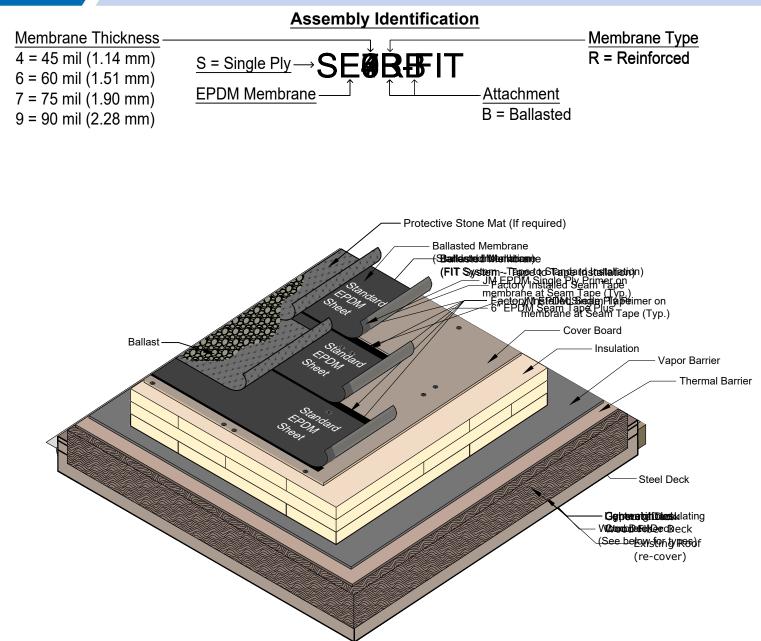


# **BALLASTED EPDM ASSEMBLY PLATE**



For JM Guarantee Requirements Contact JM Technical Services at (800) 922-5922 Option 3 or Refer to the JM Peak Advantage Charges and Requirements-Single Ply document

EPDM Membrane and Specification Number: - SE4B 45 mil 45 mil (FIT System) - SE4B-FIT 60 mil (Reinforced) - SE6RB 60 mil - SE6B 60 mil (FIT System) - SE6B-FIT 75 mil (Reinforced) - SE7RB 90 mil - SE9B 90 mil (FIT System) - SE9B-FIT Seam Options: 3" JM EPDM Seam Tape Plus 6" JM EPDM Seam Tape Plus 4" (FIT) Tape to Tape 4" (FIT) Tape to Standard 6" (FIT) Tape to Tape 6" (FIT) Tape to Standard 3" JM EPDM Seam Tape Plus with JM 6" EPDM Peel & Stick Sealing Strip

Approved Cover Boards: (If Applicable) RetroPlus™ Roof Board SeparatoR<sup>®</sup> CGF Recover Board Cover Board Thickness

Approved JM Insulations: ENRGY 3® (ENRGY 3 Options) CGF 20 PSI 25 PSI Tapered Layer 1 Thickness Layer 2 Thickness Approved Thermal Barrier: (If Applicable) JM SECUROCK<sup>®</sup> Gypsum-Fiber Roof Board Glass-Mat Roof Board JM DEXCELL<sup>®</sup> FA Glass-Mat Roof Board Glass-Mat Roof Board JM DensDeck<sup>®</sup> Roof Board JM DensDeck Prime Roof Board Thermal Barrier Thickness

Approved Vapor Barrier: (If Applicable)

JM Vapor Barrier SA 6 or 10 mil poly with taped seams Deck Type:

Existing Roof (re-cover) Steel (22 Ga. Min.) Structural Concrete Nailable Decks include: Cementitious Wood Fiber Gypsum Lightweight Insulating Concrete Wood (Plywood, Plank, OSB)



# **BALLASTED EPDM ASSEMBLY PLATE**

## General

This specification is for use over any approved structural deck which is suitable to receive the above selected system. This specification is also for use over certain JM roof insulations which provide a suitable surface for the JM membrane. This specification can also be used in certain re-roofing applications.

#### Note:

Consider all general instructions contained in the current JM EPDM Application Guide as part of this specification.

#### Design

Consider local conditions and characteristics when designing, specifying and installing any roofing system. Information from the Single Ply Roofing Industry (SPRI), FM Global<sup>®</sup> and local building codes can provide guidelines for the designer.

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 substantially within 48 hours of a rain event.

## EPDM Membrane Application

Before installation, unroll and unfold the JM EPDM membrane and allow it to "relax". The laps of JM EPDM adhered systems must be kept free of dust, debris, moisture or other contaminants. Clean all dirty surfaces to receive JM Single Ply Membrane Primer (Low VOC) or JM EPDM Tape Primer with JM Weathered Membrane Cleaner prior to applying primer. Where there is a splice in the seam tape, that location must be stripped in with either 6" min. JM EPDM Peel & Stick Flashing or a JM EPDM Peel & Stick T-Joint patch. The seam tape may be overlapped to form a continuous tape surface. Overlaps must be a minimum of 2" (51 mm). Expose ½" to ½" (3 mm to 6 mm) of seam tape at all laps. Refer to details E-MS-02,

03 and 04 for lap construction information. Refer to the JM EPDM Application Guide for further information.

JM Single Ply LVOC Caulk is required on all cut or non-encapsulated edges of reinforced membrane. This includes factory cut membrane. Refer to detail E-MS-01 for further information.

# EPDM-FIT Membrane Application (Tape to Standard)

Before installation, unroll and unfold the JM EPDM -FIT membrane and allow it to "relax". After unrolling the first sheet, position adjoining sheets in the same manner, lapping the edges a maximum of 4" (10.16 cm) for 4" pre-taped sheets and 6" (15.24 cm) for 6" pre-taped sheets. Sheets should be laid out in an offset pattern with a minimum of 3' (91.44 cm) between adjacent end laps. Laps should be constructed with the upslope sheet overlapping the adjoining sheet in a shingle manner to avoid any laps opposing natural drainage. Fold back the top sheet and hold the membrane away from the seam area. Apply primer to both the folded EPDM membrane and bottom sheet in an area wider than the lap. Once dry, roll the top sheet into place forming the lap. Starting at one end of the lap, remove the release liner from the EPDM Seam Tape by peeling it back parallel to the roof surface and away from the splice at a 45° angle. Hand roll using a 2" (50 mm) roller, first diagonally across the entire splice toward the outside edge, and then along the entire length of the splice. Refer to details E-MS-PT1, PT2, PT3 and PT4 for lap construction information.

# EPDM-FIT Membrane Application (Tape to Tape)

Starting with the same steps as Tape to Standard, "without priming", start at one end of the JM EPDM-FIT membrane lap simultaneously remove the plastic release liners on both the upper and lower JM EPDM Seam Tape by peeling them back parallel to the roof surface and away from the splice at a 45° angle. Hand roll in same manner as Tape to Standard. Where there is a splice in the seam tape, that location must be stripped in with either 6" min. JM EPDM Peel & Stick Flashing or a

JM EPDM Peel & Stick T-Joint patch. Refer to details E-MS-PT5, PT6, PT7 and PT8 for lap construction information.

# Ballast Surfacing

The ballast should be of a suitable type, and of sufficient amount to provide protection against wind uplift. The Single Ply Roofing Industry (SPRI) has issued guidelines to assist the designer in it's "Wind Design Guide for Ballasted Single Ply Roofing Systems" (ANSI/SPRI RP-4). Information can also be obtained from local building codes and from FM Global Property Loss Prevention Data Sheet 1-29 "Roof Deck Securement and Above Deck Roof Components" The final decision on type and amount of ballast is the responsibility of the owner and their technical representative(s), but at a minimum of  $10lb/ft^2$  (1,000 lb/100 ft<sup>2</sup> [49 kg/m<sup>2</sup>). This amount may not be sufficient to to completely cover the JM EPDM Single Ply Membrane and should be verified by the owners technical representative.

If crushed rock with sharp edges is used for ballast, a layer of JM EPDM Protective Stone Mat or other approved protection material must be used under the ballast. If stone ballast if being re-used a layer of JM EPDM Protective Stone Mat is recommended to prevent membrane puncture. Refer to detail E-MS-PT06 for further information.

Gravel and stone ballast must be clean and free of excessive fines, to avoid clogging roof drains. JM recommends clean, smooth river bottom stone as specified in ASTM 448 "Standard Sizes of Course Aggregate".

JM recommends installing sufficient ballast onto the membrane as soon as the membrane is installed to provide immediate protection against wind uplift.

Pavers may be substituted for stone ballast. When pavers are used as ballast that do not have integral drainage channels, the pavers must be placed on supports or pedestals, or 6" (152 mm) square pieces of JM EPDM Walkpad. The supports should be centered on the pavers intersections. When pavers are not installed on pedestals or supports, one layer of JM EPDM Protective Stone Mat or JM EPDM membrane must be installed between the pavers and the roof membrane. Refer to the JM EPDM Application Guide for further information.

# **Perimeter Attachment**

Secure the JM EPDM membrane at the perimeter and penetrations using JM EPDM Reinforced Termination Strip or mechanical fasteners as appropriate. Refer to JM EPDM flashing details in the EPDM Roofing Systems Application Tools for further information.

For EPDM membrane information refer to the JM EPDM Membrane Selector Guide.

## Flashings and Components

Refer to the JM EPDM Flashing Details in the EPDM Roofing Systems Application Tools. Refer to the JM EPDM Accessories Schematic and the JM EPDM Accessories Selector Guide for available System Components.

# **Cover Board Application**

A minimum offset of 6" (152 mm) is recommended from previous layers of insulation. No board widths less than 6" (152 mm) are allowed. Refer to the JM Cover Boards Selector Guide for JM Cover Boards product information. Refer to the Insulation Application section below for Cover Board Securement Information including Adhered and Fastened methods of attachment.

# Insulation Application

A minimum offset of 6" (152 mm) is recommended from the previous layer of insulation. Loose laid insulations should be positioned with the long side of the boards running perpendicular to the EPDM sheet orientation and continuous. End joints should be staggered at least 12" (305 mm) from the end joint in adjacent rows. A minimum offset of 6" (152 mm) is recommended from plywood joints. Refer to the Insulation Installation Instructions document for further information.

Roof Insulation plays a key role in energy efficiency shown in codes and standards that have mandated increasingly higher minimum R-values in all U.S. climate zones. Local codes dictate the required R-values for commercial and industrial projects and the local jurisdiction should be consulted for this information.

# Vapor Barrier Application

All surfaces receiving vapor barrier must be clean and free from oil, grease, rust, scale, loose paint and dirt. The substrate may need to be cleaned according to JM Application Instructions, and any required primers installed. An adhesion test may need to be performed to determine if the substrate is adequate. Vapor Barrier attachment methods include Hot Asphalt, Cold Adhesive, Heat Welded, and Self Adhered. Refer to the JM Vapor Barrier SA Installation Guide, the Vapor Barrier Data Sheets, and the Vapor Retarders section in SBS Roofing Systems for further information.

## Thermal Barrier Application

Apply the units of approved JM thermal barrier products with long joints continuous. End joints should be staggered so that they are offset at least 12" (305 mm) from the end joints in adjacent rows. Thermal barriers provide a fire resistive layer in the roof assembly directly above the deck.

## **Deck Preparation**

Before roofing work is started, the deck should be carefully inspected by the roofing contractor, the deck contractor, and the owners representative to determine that it will be able to receive the roofing system by some method which will hold the system securely, either by adhesion, ballast, or mechanical fasteners. Refer to the JM Roof Decks document in System Considerations for further information.

# Re-RoofIng

A large percentage of all commercial and industrial roofing pertains to re-roofing of existing buildings. Refer to the JM Re-Roofing document for inspection, testing, components and other valuable information pertaining to re-roofing projects.

# JM Guarantee Requirements

JM Peak Advantage Guarantees are available up to a 30 year term with approved components and assembly make-up. Refer to the JM Peak Advantage Charges and Requirements-Single Ply document for additional guarantee information.

Refer to the JM Peak Advantage Guarantee Information document for additional guarantee information and guidelines.

Refer to the JM Peak Advantage Guarantee Specimen document to see a JM Peak Advantage Guarantee sample.

All guaranteed installations must follow the guidelines for the requested guarantee as outlined in the JM Single Ply Application Manual. Not all JM specifications are eligible for all JM Peak Advantage Guarantee terms or enhanced coverage. Please contact JM Guarantee Services at (800) 922-5922 Option 3 for specific requirements. All projects requiring a guarantee from JM must be applied for a minimum 14 days in advance of job start.

Refer to the Preventative Maintenance Brochure for roof and building maintenance guidelines.