MECHANICALLY ATTACHED TPO ASSEMBLY PLATE

Assembly Identification

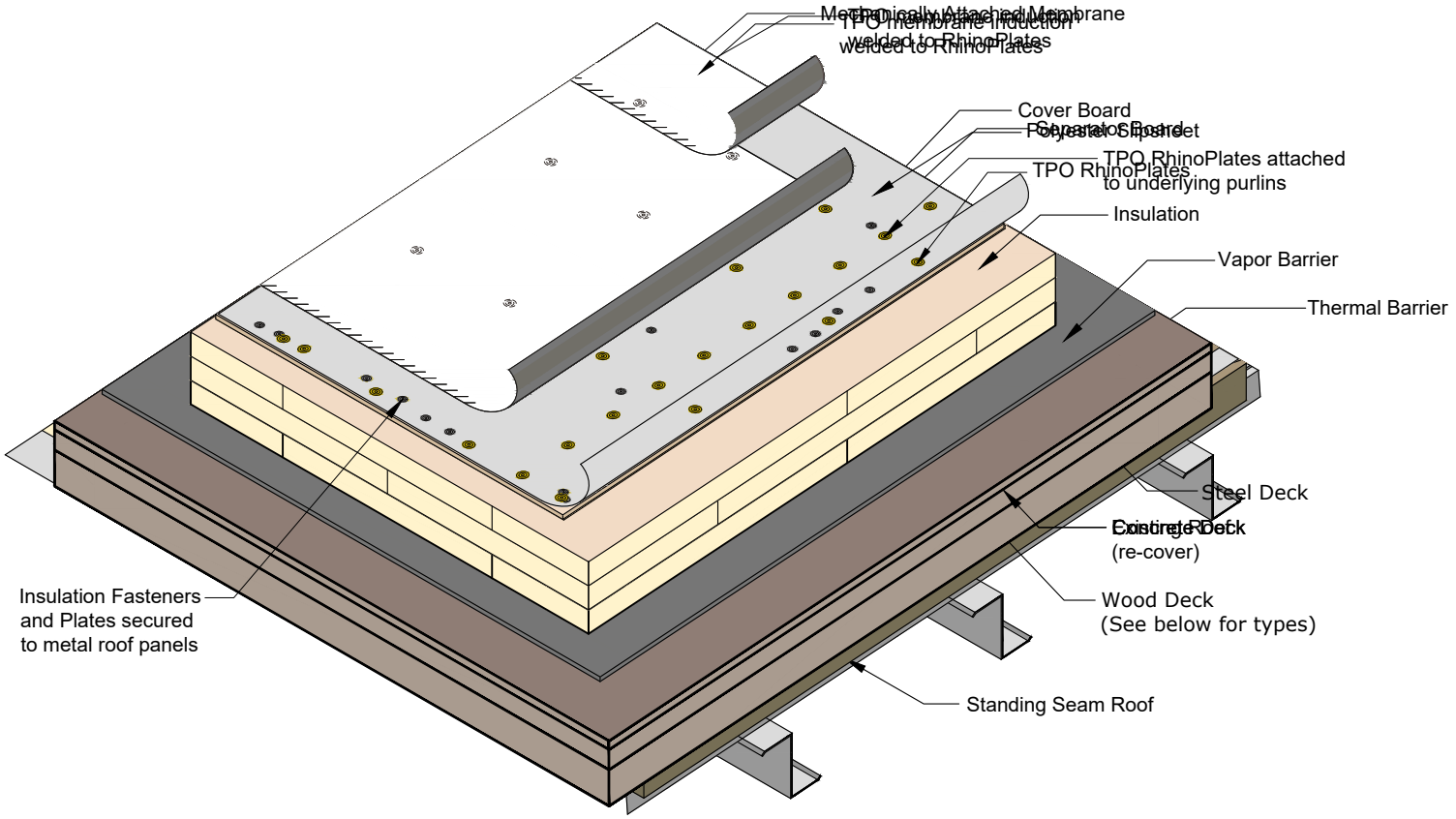
Membrane Thickness
4 = 45 mil (1.14 mm)
6 = 60 mil (1.51 mm)
8 = 80 mil (2.03 mm)

S = Single Ply → ST6RM

TPO Membrane

Membrane Type
R = Reinforced
P = Polyester Fleece Backed

Attachment
M = Mechanically Attached
R = RhinoPlate Attached



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

TPO Membrane and Specification Number:
- ☐ 45 mil - ST4RM
- ☐ 60 mil - ST6RM
- ☐ 80 mil - ST8RM
- ☐ FB 115™ - ST6PM
- ☐ FB 135™ - ST8PM
- ☐ 60 mil - ST6RR (RhinoPlate)
- ☐ 80 mil - ST8RR (RhinoPlate)

Separation Layer: (Re-cover only)
(If Applicable)
- ☐ JM 3 oz Polyester Slipsheet

Approved JM Insulations:
- ☐ ENRGY 3®
  (ENRGY 3 Options)
  - ☐ CGF
  - ☐ FR
  - ☐ 20 PSI
  - ☐ 25 PSI
  - ☐ Tapered
  - Layer 1 Thickness _____
  - Layer 2 Thickness _____
  - Layer 3 Thickness _____

Approved Cover Boards: (If Applicable)
- ☐ Invinsa® Roof Board
- ☐ Invinsa FR Roof Board
- ☐ RetroPlus™ Roof Board
- JM DEXCELL®
  - ☐ FA Glass-Mat Roof Board
  - ☐ Glass-Mat Roof Board
- JM SECUROCK®
  - ☐ Gypsum-Fiber Roof Board
  - ☐ Glass-Mat Roof Board
- ☐ JM DensDeck® Roof Board
- ☐ JM DensDeck® Prime Roof Board
- ☐ ProtectoR™ HD Cover Board
- ☐ SeparatoR® CGF Recover Board
- ☐ SeparatoR® Recover Board

Cover Board Thickness _____

Approved Thermal Barrier:
(If Applicable)
- JM SECUROCK®
  - ☐ Gypsum-Fiber Roof Board
  - ☐ Glass-Mat Roof Board
- JM DEXCELL
  - ☐ FA Glass-Mat Roof Board
  - ☐ Glass-Mat Roof Board
- ☐ JM DensDeck Roof Board
- ☐ JM DensDeck Prime Roof Board
- ☐ JM ProtectoR HD

Thermal Barrier Thickness _____

Approved Vapor Barrier:
(If Applicable)
- ☐ DynaBase®(CA) (HA)
- ☐ DynaBase PR (CA) (HA)
- ☐ GlasPly®IV (HA)
- ☐ GlasPly Premier (HA)
- ☐ APPeX®4S (HW)
- ☐ DynaWeld™Base (HW)
- ☐ DynaBase HW (HW)
- ☐ DynaWeld 180 S (HW)
- ☐ JM APP™Base Sheet (HW)
- ☐ DynaGrip®Base SD/SA (SA)
- ☐ JM BaseGrip™ SD/SA (SA)
- ☐ JM Vapor Barrier SA (SA)
- ☐ 6 or 10 mil poly
  with taped seams

Deck Type:
- ☐ Existing Roof (re-cover)
- ☐ Standing Seam
- ☐ Steel (22 Ga. Min.)
- ☐ Structural Concrete
- ☐ Nailable Decks include:
  Wood (Plywood, Plank, OSB)

Vapor Barrier Application Key (CA) Cold Applied (HA) Hot Asphalt (HW) Heat Weld (SA) Self Adhered

MECHANICALLY ATTACHED TPO 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 TPO 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® 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.

TPO Membrane Application

Before installation, unroll the JM TPO membrane and allow it to "relax". For mechanically attached systems on steel decks, the membrane sheets must be applied perpendicular to the deck flutes. Install High Load Fasteners and Plates with the edge of the plates no closer than 1/2" (13 mm) from the edge of the membrane. Fasteners must pierce the top flutes of the deck ¾" (19 mm) min. and 1" (25 mm) on wood decks. For a RhinoPlate® fastened system, ensure calibration of the RhinoPlate induction welder, locate plates under the membrane and center the welder over the plate, ensuring there is no dirt or debris between the welder and the membrane. Follow all recommended instructions in the JM TPO RhinoPlate System Installation Guide. The laps of JM TPO mechanically fastened systems must be hot air welded. Mechanically fastened laps must be a minimum 5" (12□ mm) in width to allow for the 1 1/2" (38 mm) weld. Clean all surfaced to be welded. Refer to details T-MS-02, T-MS-03, T-MS-04, and T-MS-05 for heat welding lap information. Follow manufacturers operating instructions for welding equipment. Refer to the JM TPO Application Guide for further information.

JM TPO Edge Sealant is required on all cut or non-encapsulated edges of reinforced membrane. This includes factory cut membrane. Refer to detail T-MS-01 for further information.

Appropriate JM membrane fasteners include:

- All Purpose Fasteners
- High Load Fasteners
- Extra High Load Fasteners
- JM Purlin Fasteners
- RetroDriller Fasteners

Appropriate JM fastener plates include:

- High Load Plates
- Extra High Load Plates
- JM TPO RhinoPlates

Flashings and Components

Refer to the JM TPO Flashing Details in the TPO Roofing Systems Application Tools. Refer to the JM TPO Accessories Schematic and the JM TPO Accessories Selector Guide for available system components. JM approved adhesives for use on vertical flashing applications includes JM LVOC Membrane Adhesive (TPO □ EPDM), JM Membrane Bonding Adhesive (TPO □ EPDM), JM TPO Water Based Membrane Adhesive. Refer to details T-FW-M1 and T-FW-M1I for additional vertical wall flashing information.

Separation Layer (Re-Cover Assemblies)

Separation layer products are intended for use between an existing roof and a new mechanically attached single ply membrane. SeparatoR™ Board is a mechanically attached product using 4 fasteners per 4□x4□board and 6 fasteners per 4□x8□board. Refer to the SeparatoR Board data sheet for further information. JM 3 oz Polyester Slipsheet is loose laid with a 3" minimum side lap and 6" minimum end lap. Sheets may be tacked into place as necessary. Refer to the JM 3 oz Polyester Slipsheet data sheet for further information.

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 Invinsa Roof Board Codes and Application Brochure for further information. 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 TPO sheet orientation and continuous. End □oints should be staggered at least 12" (305 mm) from the end □oint in ad□acent rows. A minimum offset of 6" (152 mm) is recommended from plywood □oints. Refer to the Insulation Installation Instructions document for further information.

Appropriate JM Insulation Fasteners Include:

- All Purpose Fasteners,
- UltraFast® Fasteners and Plates
- High Load Fasteners
- Structural Concrete Deck Fasteners and Plates

Install fasteners and plates at an appropriate rate determined by building code, specification, and/or JM Guarantee requirements. Refer to the JM Minimum Fastening Requirements-Attached Membrane bulletin for further information. Refer to the Fastening Patterns in the JM TPO Roofing Systems Application Tools.

Refer to the JM TPO Mechanically Fastened Membrane and Induction Welded FM Approvals document for Single Ply System Code and FM Global Approval 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 □oints continuous. End □oints should be staggered so that they are offset at least 12" (305 mm) from the end □oints in ad□acent 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 pro□ects.

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 Guarantee Information document for additional guarantee information.

Refer to the JM Peak Advantage Guarantee Charges and Requirements-Single Ply document for 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. 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 pro□ects requiring a guarantee from JM must be applied for a minimum 14 days in advance of □ob start.

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