Concrete Deck
Lightweight Insulating Concrete Deck
Steel Deck
Cementitious Wood Fiber Deck
Gypsum Deck
Wood Deck

Vapor Barrier
Insulation
Cover Board
Thermal Barrier

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

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
General
This specification is for use over any approved structural deck that provides a suitable surface to receive the roof. This specification can also be used in certain re-roofing applications. Poured and precast concrete decks require priming prior to application of hot asphalt.

This specification is also for use over JM insulation or other rigid insulations which are not nailable and which offer a suitable surface to receive the roof. Specific written approval is required for any roof insulation not manufactured or supplied by JM.

Note:
Consider all general instructions contained in the current JM Thermoplastic Membrane with Redundant Bituminous Systems Installation Guide and the JM SBS 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), Asphalt Roofing Manufacturers Association (ARMA), FM 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.

Membrane Substrate
The surface on which the built up, SBS modified bitumen or thermoplastic fleece backed membrane is to be applied should be an approved structural substrate. The surface must be clean, smooth, flat and dry. Built up roofing and SBS modified bitumen should not be applied directly to foam plastic insulations.

Flashing and Components
Refer to the JM PVC Hybrid Details and the JM Thermoplastic Membrane with Redundant Bituminous Ply Systems Installation Guide on the JM website.

Deck Preparation
Before roofing work is started, the deck should be carefully performed to determine if the substrate is adequate. Vapor Barrier need to be cleaned according to JM Application Instructions, and Single Ply Roofing Industry (SPRI), Asphalt Roofing manufacturers. Local conditions and characteristics when designing, specifying and installing any roofing system. Information from the Single Ply Roofing Industry (SPRI), Asphalt Roofing Manufacturers Association (ARMA), FM and local building codes can provide guidelines for the designer.

Using a low rise urethane adhesive product for insulation as a substrate for the deck, all surfaces must be clean, smooth, compatible and free of dirt, debris, oils, greases and grapple. Applying JM urethane adhesive directly to the substrate and allow it to rise and build body before placing board stock into the adhesive. Board stock attachment requires the board stock to be walked in to ensure positive contact between the board stock, adhesive and substrate. When using JM One-Step Formable Adhesive, insulation boards must be set into the adhesive immediately and walked in to the rapid curing time of the adhesive. Refer to the specific JM product data sheets of JM insulation adhesives listed above for coverage rates and specific application information.

When adhering insulation boards using hot asphalt, board size must be no greater than 4’ x 4’ (1.22 m x 1.22 m) if installing over an existing layer of insulation or in multiple layers, all joints must be offset a minimum of 6” (152 mm) between layers. Porous substrates may require greater amounts of asphalt. Concrete decks must be primed with Asphalt Primer prior to application of hot asphalt. Refer to the Insulation Installation Instructions document for further information.

Appropriate JM Insulation Fasteners Include:
- All Purpose Fasteners
- UltraFast Insulation Fasteners and Plates
- Structural Concrete Deck Fasteners and Plates
- Polymer Auger Fasteners

Install JM insulation fasteners and plates at an appropriate rate determined by building code, specification, and/or JM Guarantee requirements. Refer to the JM Minimum Insulation Fastening Requirements-Adhered Membrane bulletin for further information.

Cover Board Application
Cover boards may be installed using asphalt, mechanical fasteners, or adhesives. 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 section Insulation Application above for Cover Board Security Information Including Adhered and Fastened methods of attachment.

Asphalt Application
JM BUR, SBS modified bitumen and thermoplastic fleece back products are designed to be installed with hot asphalt. Permanap, coal tar pitch and coal tar asphalt are not permitted.

JM requires the use of approved asphalt within systems which require aJM Peak Advantage Guarantee. Asphalt should meet the requirements of ASTM D 312. JM guarantees the use of approved asphalt. The slope of the roof as well as the climate governs the grade of asphalt to be used.

JM endorses the guidelines established by the NRCA and ARMA for heating asphalt for proper applications. Asphalt should be applied at the Equiviscous Temperature (EVT) +/- 25°F (+/- 4°C).

Modified Bitumen Sheet Application - Hot Asphalt
On roof decks with slopes up to 1/2” per foot (41 mm/m), the roof felts may be installed either perpendicular or parallel to the roof incline. Install each felt so that it is firmly and uniformly set, without voids into the hot asphalt just before the felt at the proper nailable recommended rates. All sheet edges should be well sealed.

SBS Application: Starting with one of the base plies listed, install a 3/4” width ply into a full mopping of hot asphalt, over that a 3/4” width ply and over both a full width ply with the remaining plies applied full width overlapping the preceding plies by 24” (627 mm) so that at least three plies cover the substrate at all locations.

BURL Application: Starting with one of the base plies listed, install a 3/4” wide ply into a full mopping of hot asphalt, then over that a 3/4” wide ply, then over these three plies install a full width ply. The following plies are to be applied full width, overlapping the preceding plies by 27” (699 mm) so that at least four plies cover the substrate at all locations.

Thermoplastic Membrane with Redundant Bituminous Systems Over Non-Nailable Decks.
These specifications are for use over any type of deck which is not nailable and which offers a suitable surface to receive the roof. Concrete decks require coating with Hot Asphalt Primer prior to the application of hot asphalt. Pre-cast concrete panels also require a layer of approved roof insulation prior to installing a roof membrane. The thermoplastic fleece backed membrane must be firmly and uniformly placed into a full mopping of hot asphalt without voids. Asphalt must not be applied to the selvage edge of the thermoplastic fleece backed membrane to allow a minimum of 1.5” (38 mm) weld. Before installation, unroll the JM PVC Fleece Backed membrane and allow it to relax. The laps of JM PVC Fleece Backed membrane must be hot air welded. Clean all surfaces to be welded. All laps must be a minimum of 1” (25 mm) in width. JM PVC Fleece Backed membrane for hot asphalt application has a 8 oz. polyester fleece for staking protection against the asphalt. The membrane if furnished in 60 and 80 mil thickness and delivered in 10’ widths.

Steep Slope Requirements
Special procedures are required on inclines over 1/2” per foot (41 mm/m). Refer to the SBS Application Guide 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 further information and guidelines for re-roofing projects.

JM Guarantee Requirements
JM Peak Advantage Guarantees are available up to a 25 year term with approved components and assembly make-up. Refer to the JM Peak Advantage Charges and Requirements, Bituminous Systems document for additional guarantee information.

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

Re-Roofing
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.