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

Note: Consider all general instructions contained in the current 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 (SPI), Asphalt Roofing "M" Manufacturers Association (ARMA), 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.

Membrane Substrate
The surface on which the SBS modified bitumen membrane is to be applied should be an approved structural substrate. The surface must be clean, smooth, flat and dry. SBS modified bitumen should not be applied directly to foam insulations.

Flashings and Components
Refer to the "JM Bituminous Details" in the SBS Systems Application Tools.

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 means, which will hold the system securely, either by adhesion, ballast, or mechanical fasteners. Refer to the "JM Roofing Details" document in System Considerations for further 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 Barrier section in SBS System Application Tools 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.

Base Sheet Application
The bituminous base sheets for these systems are mechanically fastened. Refer to the "JM Bonding Patterns" section in SBS System Application Tools for Base Sheet fastening patterns and further information.

Insulation Application
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.

A minimum offset of 6" (152 mm) is recommended from the previous layer of insulation. Loose laid insulations should be positioned with a minimum offset 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.

When adhering insulation boards using hot asphalt, board size must not be greater than 4' x 4' (1.22 m x 1.22 m) if insulation is being installed over an existing layer of insulation or in multiple layers, all sheets must be a minimum of 6" (152 mm) between layers. Porous substrates may require greater amounts of asphalt.

Modified Bitumen Sheet Application - Heat Welded
Heat Welded A \(A\) x \(A\) wide piece of one of the intermediate sheets listed over the full width adhered base sheet. The remaining sheets are to be applied full width, in the same manner, with 4" (102 mm) side and 4" (102 mm) end laps over the preceding sheets.

Starting at the low point of the roof, heat weld a full width piece of one of the Cap Sheets listed over the installed intermediate ply. Remaining sheets are to be applied in the same manner, with 4" (102 mm) side and end laps 6" (152 mm) end laps for polyester reinforced products. Apply all full width sheets so that they are firmly and uniformly set, without voids. Maintain a \(A\) x \(A\) (3 mm to \(A\) x \(A\) (10 mm) bleed out beyond all laps. Refer to the "JM SBS Application Guide" for further information.

Modified Bitumen Sheet Application - Self Adhered
Starting at the low point of the roof, install a half width sheet piece of one of the intermediate sheets listed over the installed full width base sheet. Remove the bottom release film and roll in the sheet with a 75 to 100 lb (34 to 45 kg) split wheel roller to ensure a firm set. Refer to the "JM Cover Boards Selector Guide" for further information.

Unroll the cap sheet and allow it to relax. Position the full width cap sheet (with bottom release film in tact) over the release film of the already installed intermediate sheet and install per specifications with 4" (102 mm) side and end laps 6" (152 mm) end laps for polyester reinforced products. Refer to the "JM SBS Application Guide" for further information.

Coating Systems

Topgard 4000 and Topgard 5000 are one part acrylic elastomeric roof coatings. When used over a modified bitumen roof, Topgard Base Coat must be applied as a base coat prior to application of Topgard 4000 and Topgard 5000. It is recommended that Topgard FR be applied over Topgard 4000 and all installations of Topgard 4000 and Topgard 5000. 

Topgard 5000 is ideal for cold weather climates. Refer to the Topgard 4000 and Topgard 5000 data sheets for further information.

Steep Slope Requirements
Special procedures are required on inclines over 1/2" per foot (41 mm/m), to the "JM 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 inspection, testing, components and other valuable information pertaining to re-roof 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" for further information.

Refrigeration Systems
Refer to the "JM Refrigeration Systems Requirements" document for additional guarantee information.

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 SBS Modified Bitumen Specifications document. 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 requested guarantee as outlined in the SBS Modified Bitumen Specifications document. 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.

Refrigeration Systems
Refer to the "JM Refrigeration Systems Requirements" document for additional guarantee information.

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 SBS Modified Bitumen Specifications document. 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.

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

R-values for commercial and industrial projects and the local R-values in all U.S. climate zones. Local codes dictate the required requirement that Topgard 4000 and all installations of Topgard 4000 and Topgard 5000. 

Topgard 5000 is ideal for cold weather climates. Refer to the Topgard 4000 and Topgard 5000 data sheets for further information.

Steep Slope Requirements
Special procedures are required on inclines over 1/2" per foot (41 mm/m), to the "JM 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 inspection, testing, components and other valuable information pertaining to re-roof projects.

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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" for further information.

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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 SBS Modified Bitumen Specifications document. 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.

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.