General
This specification is for use over any approved structural deck which is not nailed down and which provides a suitable surface to receive the roof. This specification can also be used over certain JM insulations or other approved insulations that are not nailed down and provide a suitable surface to receive the roof. Specific written approval is required for any roof insulation that is not provided by JM. This specification can also be used in certain re-roofing applications.

Note:
Consider all general instructions contained in the current JM BUR 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 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 Built Up Roof membrane is to be applied should be approved structural substrate. The surface must be clean, smooth, flat and dry. Built Up Roofing should not be applied directly to foam plastic insulations.

Flashings and Components
Refer to the JM Built Up Roofing Details in the Built Up Roofing 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 method which will hold the system securely, either by adhesion, ballast, or mechanical fasteners.

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 Selbst Adhered. Refer to the JM Vapor Barrier SA Installation Guide, the Vapor Barrier Data Sheets, and the Vapor Retarders document 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 resistant 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 “BMP” Fastening Patterns section in BUR System Application Tools for Base Sheet fastening patterns and further information.

Insulation Application
Roof Insulation plays a key role in energy efficiency shown in the Retarders document for further information. Refer to the JM Roof Decks document in System Considerations to receive the roof. This specification can also be used over certain applications and provide a suitable surface to receive the roof. Specific written approval is required for any roof insulation that is not provided by JM. This specification can also be used in certain re-roofing applications.

When using a low rise urethane adhesive product for insulation boards, all surfaces must be clean, dry, smooth, compatible and free of dirt, debris, oil/grease and gravel. Apply 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 Foamable Adhesive, insulation boards must be set into the adhesive immediately and walked in due 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 insulation is being installed over an existing layer of insulation or in multiple layers, all joints must be offset by 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.

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 Insulation Roof Board Codes and Application Brochure for further information. Refer to the JM Cover Boards Selector Guide for JM Cover Boards product information.

Cap Sheet Application
Apply a full width piece of one of the cap sheets listed into a full mopping of hot asphalt. The remaining sheets are to be applied in the same manner with 2” (51 mm) side laps and 4” (102 mm) end laps over preceding sheets. Apply all sheets so that they are firmly and uniformly set, without voids. Refer to the Built Up Roofing Application Guide for additional information.

Appropriate JM Insulation Adhesives Include:
- JM One Step Foamable Adhesive
- JM Roofing System Urethane Adhesive (RSUA)
- JM Two-Part Urethane Insulation Adhesive (UIA)
- JM Green Two-Part Urethane Insulation Adhesive
- JM Hot Asphalt

When installing a system with a granulated cap sheet start by rolling one of the ply sheets listed X’(’) sheet wide into a full mopping of hot asphalt, then a piece Y’(’) sheet wide into a full mopping of hot asphalt followed by a Z’(’) sheet wide into a full mopping of hot asphalt. The remaining sheets are to be applied full width with 8 ’(’ exposure and 4” (102 mm) end laps into a full mopping of hot asphalt over preceding sheets.

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Roof Coatings
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 Base Coat be used with all installations of Topgard 4000 and Topgard 5000. Drying time between coats is normally between 4 and 12 hours, depending on weather conditions. Apply when temperature is 50°F (10°C) and rising using a brush, roller or spray equipment. Topgard 5000 is ideal for cold weather climates. Refer to the Topgard 4000 and Topgard 5000 data sheets for further information.

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Note:
Sheets with polyester reinforcement must be allowed to relax in an unrolled position prior to installation. Allow the membrane to relax for at least 15 minutes when the temperature is above 60°F (16°C), or 30 minutes when the temperature is below 60°F (16°C) prior to installation.

Steep Slope Requirements
Special procedures are required on inclines over 1/2” per foot (41 mm/ft). Refer to the Built Up Roofing 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-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 Multi Ply document for additional guarantee information.

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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 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.