Assembly Identification

Substrate
I = Insulated

Number of Plies
4

Type of Ply
G = Fiber glass

Application Method
HA = Hot Asphalt

Surfacing
C = Cap Sheet (Granule Surface)
G = Gravel
P = Protected
S = Smooth
CR = Mineral Surfaced Cool Roof Sheet

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

Cover Board Membrane Compatibility and Application Key
(CA) Cold Applied
(HA) Hot Asphalt
(HW) Heat Weld
(SA) Self Adhered

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

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

Cap Sheet - Hot Asphalt
(Fiber Glass Reinforced):
- GlasKap®
- GlasKap Plus
- GlasKap CR
- GlasKap CR G

Cap Sheet - Hot Asphalt
(Fiber Glass Reinforced
Cool Roof):
- GlasKapCR
- GlasKap CR G

Roofing Felt (Base or Ply)
Hot Asphalt
(Fiber Glass Reinforced):
- DynaBase®
- GlasBase®
- GlasFelt Plus
- GlasPrime®
- GlasPrime IV
- PermaPrime 28

Approved Cover Boards:
(IF Applicable)
- DuraBoard® (CA)
- Fesco® Board (HA)
- Fesco Board HD (HA)
- Invisia™ Roof Board (CA)
- RetroFit™ Board (HA)
- JM SECURock
- Gypsum-Fiber Roof Board (CA)(HA)
- JM DensDeck Prime
- RevoPlus™ Roof Board (CA)(HA)

Approved JM Insulations:
- DuraFoam®
- ENRGY 3®
- ENRGY 3 Options
- AGF
- CGF
- FR
- 20 PSI
- 25 PSI
- Tapered
- ENRGY 3 FR
- GlasFoam
- Invisia Foam™

Approved Vapor Barrier:
(IF Applicable)
- GlasKap 1⁄4 (CA)
- GlasKap Plus (HA)
- GlasPrime Plus (HA)
- GlasPrime® Premier
- GlasPrime IV (HA)
- PermaPrime 28 (HA)
- DynaBase®
- DynaBase PR
- Ventilation Felt
- GlasBase™ Plus
- GlasPrime®
- GlasPrime Premier
- GlasPrime 180 S
- GlasPrime 250 S
- DynaLast 180 S
- DynaLast 250 S
- GlasPrime®

Approved Vapor Barrier (Fastened):
(IF Applicable)
- GlasKap CR
- GlasKap CR G
- GlasBase
- GlasPrime
- GlasPrime Plus
- GlasPrime Flexible
- GlasPrime® Premier
- GlasPrime 180 S
- GlasPrime 250 S
- GlasPrime 300 S
- GlasPrime 400 S
- GlasPrime®

Approved Thermal Barrier:
(IF Applicable)
- JM SECURock
- Glass-Mat Roof Board
- Duraboard
- Feco® Board HD
- JM DEXcell
- Glass Mat Roof Board
- FA Glass Mat Roof Board
- Cement Roof Board

Deck Type:
- Steel (22 Ga. Min.)
- Structural Concrete
- Nailable Decks include:
  - Cementitious Wood Fiber
  - Gypsum
  - Lightweight Insulating Concrete
  - Wood (Plywood, Plank, OSB)
General
This specification is for use over any approved structural deck which is not nibbable 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 nibbable 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 an 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 BUR 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. Refer to the JM Roof Decks 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 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 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 "BM" 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 codes and standards that have mandated increasing 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 the long side of the boards running perpendicular to the membrane 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.

Appropriate JM Insulation Adhesives Include:
- JM One Step Foamable Adhesive
- JM Roofing System Urethane Adhesive (RSUA)
- JM Two-Part Urethane Insulation Adhesive (UIA)
- JM Two-Part Urethane Insulation Adhesive
- Hot Asphalt
- Refer to JM drawing UA-12 INS within the Roof Insulation document for Adhesive Bead Patterns.

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.

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

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 Invensia 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 Securement Information including Adhered and Fastened methods of attachment.

Asphalt Application
Asphalt should meet the requirements of ASTM D 312. JM guarantees require the use of JM approved asphalt. JM recommends the use of only Type III or Type IV asphalt in BUR specifications. 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).

BUR Sheet Application - Hot Asphalt
On roof decks with slopes up to 1/2" per foot (41 mm/m), the roof felt 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 nominal recommended rates. All sheet edges should be well sealed.

Ply Sheet Application
When installing a roof system with applied surfacing (coating, gravel) start by rolling one of the ply sheets listed ½ sheet wide into a full mopping of hot asphalt, then a piece ½ sheet wide into a full mopping of hot asphalt followed by a ½ sheet wide into a full mopping of hot asphalt. The remaining sheets are to be applied full width with 8 ½" exposure and 4" (102 mm) end laps into a full mopping of hot asphalt over preceding sheets.