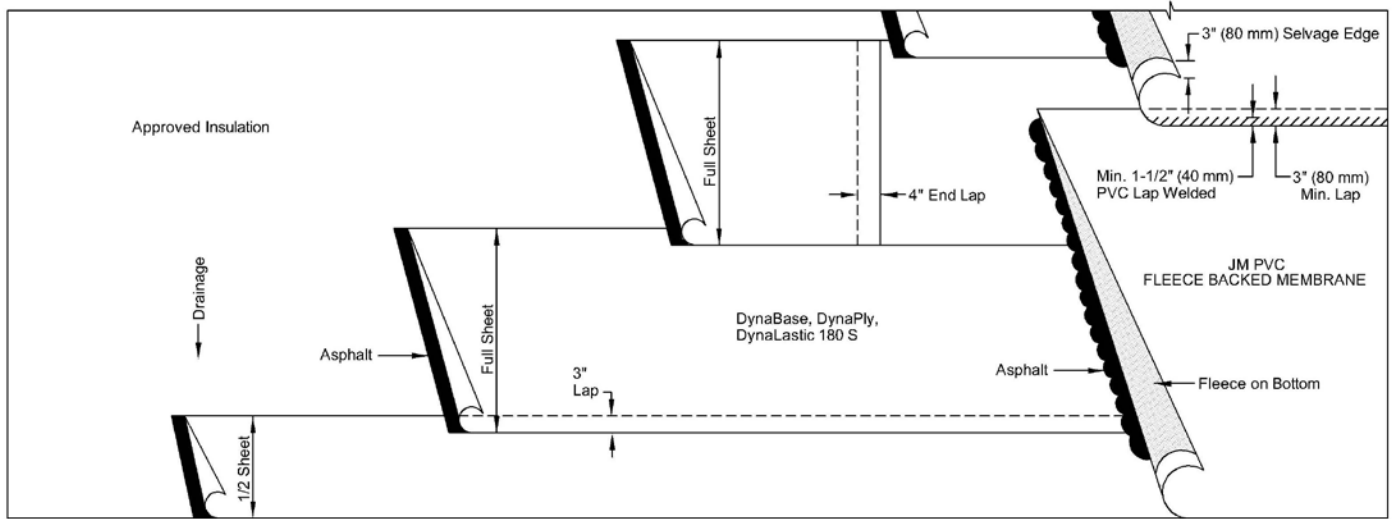


# PVC Fleece Backed Asphalt-applied System With One SBS Ply Specification 2CIT/FIT/PIT-P5/6/8



**PVC Fleece Backed Membrane With One SBS Ply Roofing System. For use over Johns Manville (JM) insulation, approved decks, or other approved insulations on inclines up to 3"/ft (250 mm/m).**

**Materials per 100 ft<sup>2</sup> (9.29 m<sup>2</sup>) of roof area**

**Primer** (If required): JM Concrete Primer 1 gal (3.8 l)

**Felts:**  
DynaBase, DynaLastic 180 or DynaPly 1 ply

**PVC:**  
50, 60, 80 mil JM PVC Fleece Backed 1 ply

**Asphalt** (Refer to Para. 8.9 of the Thermoplastic Membrane with Redundant Bituminous Ply Systems Installation Guide ): Trumbull®\* or other JM-approved asphalt

Incline per foot	Asphalt	Total Weight
Up to 1/2" (41 mm/m)	190°F (88°C), Type III, Steep	69 lb (31 kg)
1/2" to 3" (41 to 250 mm/m)	220°F (104°C), Type IV, Special Steep	69 lb (31 kg)

Approximate installed weight: 145 - 255 lb (66 - 116 kg).

## General

This specification is for use over any type of approved structural deck which is not nailable and which provides a suitable surface to receive the roof. Poured and precast concrete decks require priming with JM Concrete Primer prior to application of hot asphalt.

This specification is also for use over JM roof insulations or other approved rigid insulations which are not nailable and which offer a suitable surface to install the roof. Specific written approval is required for any roof insulation not manufactured or supplied by JM. Insulation should be installed in accordance with the appropriate JM insulation specification detailed in the current JM Single Ply Roofing Systems Manual. This specification can also be used in certain re-roofing situations. Refer to the "Re-roofing" section of the JM Single Ply Roofing Systems Manual. This specification is not to be used directly over poured or precast gypsum or lightweight, insulating concrete fills.

**Note:** Consider all general instructions contained in the current JM Single Ply Roofing Systems Manuals as part of this specification.

\*Trumbull is a registered trademark of Owens Corning.

## Design

Consider local conditions and characteristics when designing, specifying and installing any roofing system. Information from the Asphalt Roofing Manufacturers Association (ARMA), 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 substrate must result in the roof draining freely and to outlets numerous enough and so located as to remove water promptly and completely. Minor ponding is acceptable.

## Insulation Application

Store products per manufacturer's recommendations. Remove any wet product and discard.

Ensure the maximum width and length of ENRGY 3 insulation does not exceed 8' (1.22 m). Recommended minimum width is 6" (152 mm). A minimum offset of 6" (152 mm) is recommended from the previous layer of insulation. The top layer of insulation must be a minimum 1.4" (36 mm) thick. Position the insulation with the long side of the board running parallel with the flutes of the deck. Each of the edges must be centered on the flute top.

No board widths less than 6" (152 mm) are allowed. Perimeters and corners fastener density must be enhanced per FM publication 1-29.

**Call JM Technical Services at (800) 922-5922 for specific approvals for ENRGY 3 insulation.**

## Cover Board Application

JM Supports NRCA Bulletin #9 in recommending a cover board of Fesco Board or 1/2" (13 mm) Retro-Fit Board be installed over foam roof insulations in hot membrane systems

Store products per manufacturer's recommendations. Remove any wet product and discard. Ensure the maximum width and length of cover board does not exceed 4' (1.22 m). Recommended minimum width is 6" (152 mm). A minimum offset of 6" (152 mm) is recommended from the previous layer of insulation.

Cover boards can be installed using asphalt, mechanical fasteners, or adhesives.



# PVC Fleece Backed Asphalt-applied System With One SBS Ply

## Specification 2CIT/FIT/PIT-P5/6/8 (cont'd)

### Asphalt Application

Asphalt should meet the requirements of ASTM D 312. JM guarantees require the use of Trumbull® asphalt or another JM-approved asphalt.

JM endorses the guidelines established by the NRCA and ARMA for heating asphalt for proper insulation applications. Asphalt should be applied at the Equiviscous Temperature (EVT), +/- 25°F (+/- 14°C).

Refer to the Material Safety Data Sheet and product label prior to using this product.

### Mechanical Fastener Application

Perimeters and corners fastener density must be enhanced per FM publication 1-29. **Call JM Technical Services at (800) 922-5922 for specific approvals for ENRGY 3 Insulation.**

### Adhesive Application

Use of JM Two-Part Urethane Insulation Adhesive (UIA) is allowed. Please refer to FM Approvals to adhere for the use of this adhesive to adhere Fesco Board or ½" (13 mm) Retro-Fit Board.

### SBS Application

On roof decks with slopes up to ½"/ft (41 mm/m), the modified bitumen sheets may be installed either perpendicular or parallel to the roof incline.

Roll a 2/3 width piece of one of the base sheets listed into a full mopping of asphalt. The remaining sheets are to be applied full width, in the same manner, with 3" (76 mm) side and 4" (102 mm) end laps over the preceding sheets. Roll ½ width piece of one of the intermediate sheets listed into a full mopping of asphalt. The remaining sheets are to be applied full width, in the same manner, with 3" (76 mm) side and 4" (102 mm) end laps over the preceding sheets. Install each sheet so that it is firmly and uniformly set, without voids, into the hot asphalt (within +/- 25°F (+/- 14°C) of the EVT) applied just before the sheet at a nominal rate of 23 lb/100 ft<sup>2</sup> (1.1 kg/m<sup>2</sup>) over the entire surface. All sheet edges should be well sealed. Installation over porous substrates such as roof insulation may require up to 33 lb/100 ft<sup>2</sup> (1.6 kg/m<sup>2</sup>) of hot asphalt. For modified bitumen sheets, the asphalt temperature should be a minimum of 400°F (204°C) when the sheet is set into it. The higher temperature maximizes the bonding of the modified bitumen sheet.

**Note:** When using metric- and English-sized sheets in the same system, care must be taken to avoid lap-over-lap configurations.

**Note:** Sheets with polyester reinforcement must be allowed to relax in an unrolled position prior to installation.

### PVC Membrane Application

Before installation, unroll the JM PVC Fleece Backed membrane, and "relax" a minimum of 30 minutes.

#### Application of the membrane using the fold method:

- Starting at the low point of the roof, position the JM PVC Fleece Backed membrane to promote water flow.
- Fold the membrane back on itself to expose the substrate.
- Apply asphalt to the substrate at +/- 25°F (+/- 14°C) of the EVT applied just before the JM PVC Fleece Backed membrane at a nominal rate of 23 lb/100 ft<sup>2</sup> (1.1 kg/m<sup>2</sup>).
- Fold the JM PVC Fleece Backed membrane back into the hot asphalt.
- Broom in the JM PVC Fleece Backed membrane without walking on the membrane to ensure even contact of the asphalt with the fleece backing.

#### Application of the membrane using the roll method:

- Position the JM PVC Fleece Backed membrane where the membrane will be installed.
- Unroll 10 to 20 feet (3.05 m to 6.1 m) and adjust it to its final position (weigh down the membrane to prevent movement).
- Apply asphalt to the substrate at +/- 25°F (+/- 14°C) of the EVT applied just before the JM PVC Fleece Backed membrane at a nominal rate of 23 lb/100 ft<sup>2</sup> (1.1 kg/m<sup>2</sup>).
- Roll the PVC Fleece Backed membrane back into the hot asphalt.
- Broom in the PVC Fleece Backed membrane without walking on the membrane to ensure even contact of the asphalt with the fleece backing.

**Note:** Be extremely careful to prevent asphalt contamination of the lap areas. If asphalt contamination occurs, the lap will require stripping-in to prevent water infiltration.

**Note:** Adjoining roll ends are required to be butted to each other per detail PA-6.

For cold weather application techniques, refer to Paragraph 14 of the Thermoplastic Membrane with Redundant Bituminous Ply Systems Installation Guide.

### Welding of Lap Areas

The laps of JM PVC adhered systems must be hot air welded. Clean all surfaces to be welded. Follow manufacturer's operating instructions for welding equipment. All welds must be a minimum of 1.5" (38 mm) in width.

### Quality Control of Seams

After heat welding, check the seams for integrity with a blunt-ended probe. Repair any cold welds or "fishmouths". Each day, take test cuts at the seams and pull until failure to test the quality of the welds. Should the welds be deficient, a more thorough examination of the work performed must be carried out and necessary repairs made.

### Perimeter Attachment

Mechanically fasten the JM PVC roofing membrane at the perimeter and at penetrations using High Load Fasteners and Plates or other approved fasteners appropriate for substrates.

### Flashings

Flashing details can be found in the "PVC Flashing Details" section of the JM Single Ply Roofing Systems Manual.