



JM TPO FB 115™ Fully Adhered System Over ENRGY 3® Insulation Fastened to a Concrete Deck

General

This specification is for use over any approved structural concrete deck which is suitable to receive a urethane adhesive-applied insulation. This specification can also be used in certain re-roofing applications.

Install insulation in accordance with the appropriate JM insulation specification detailed in the current JM Single Ply Roofing Systems Manual. All insulation boards and cover boards must be properly embedded in approved JM urethane adhesive.

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

Design

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

Deck Preparation

Ensure the deck is clean, dry and smooth so that the insulation lays flat. Good roofing practice recommends testing decks in accordance with ASTM D 4263 to verify dryness of concrete.

Insulation Application

Ensure the maximum width and length of ENRGY 3 insulation does not exceed 4' (1.22 m). Recommended minimum width is 6" (152 mm). Store products per manufacturer's recommendations. Remove any wet product and discard. 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.

Insulation Securement – Fastened

Apply JM Two-Part Urethane Insulation Adhesive as follows:

- Field 12" (305 mm) spacing
- Perimeter 6" (152 mm) spacing
- Corners 4" (102 mm) spacing

Be sure to utilize FM 1-28 guidelines for determining perimeter width.

Membrane Application

Before installation, unroll the JM TPO FB Membrane, and "relax":

- 15 minutes when the temperature is above 60°F (16°C)
- 30 minutes when the temperature is below 60°F (16°C)

Once the membrane has been properly positioned, fold the sheet back half of the sheet's length. Apply adhesive as directed on the adhesive instructions.

Ensure that the membrane is rolled at least twice with a heavy compression roller after application into the adhesive.

Membrane Securement - Adhered

Apply adhesive at 40°F (4°C) or above for best drying times and bond strength. Follow the application instructions for the type of adhesive utilized. **Do not apply adhesive to the lap areas of the sheet that will be welded.** Ensure the membrane is smooth and free of wrinkles or buckles.

Welding of Lap Areas

The laps of JM TPO 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

Secure attachment of the TPO roofing membrane at the perimeter and at penetrations by mechanical fastening using High Load Fasteners and Plates or other approved fasteners appropriate for substrates.