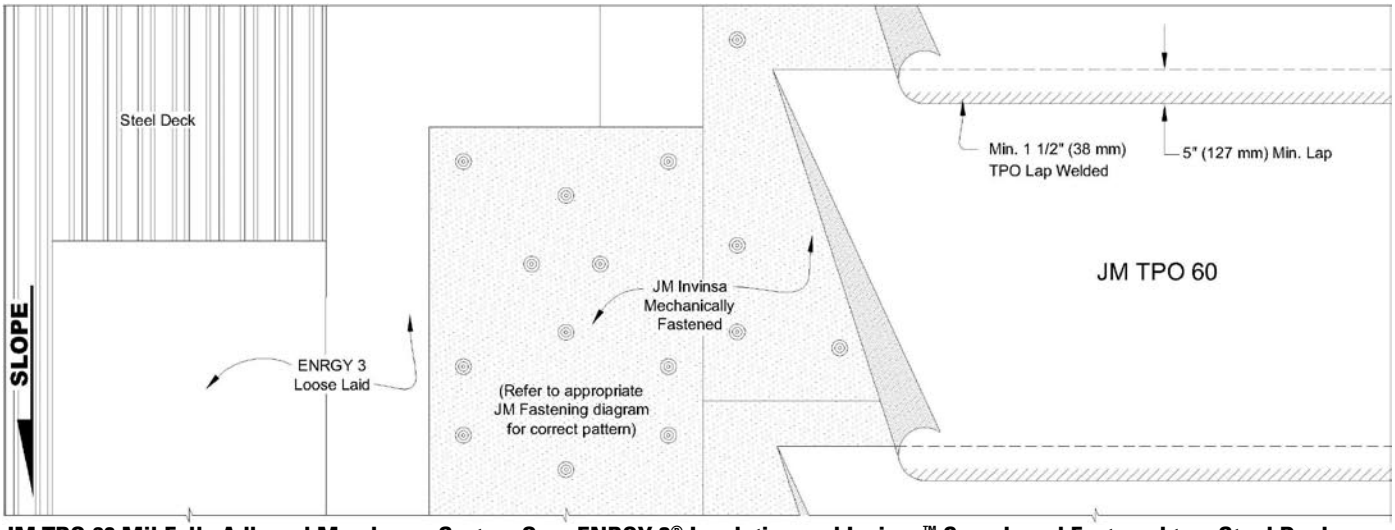
Specification ST6RA– S/I

60SHT-LM-A



JM TPO 60 Mil Fully Adhered Membrane System Over ENRGY 3® Insulation and Invinsa™ Coverboard Fastened to a Steel Deck

General

This specification is for use over any approved structural steel deck which is suitable to receive a mechanically fastened 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.

- Insulation: Mechanically fasten using UltraFast® Fasteners and Plates
- Membrane: Secure using High Load Fasteners and Plates

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 feely 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. Steel decks must be a minimum 22 gauge (0.76 mm) and FM-approved fastening methods must be followed to achieve the desired uplift. Please check with the deck manufacturer for further guidelines.

Insulation Application

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 – Loose Laid

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. Keep all boards tight with no gaps greater than ¼" (6 mm).

Coverboard Application

Position the Invinsa coverboard with a minimum 6" (152 mm) offset from the previous layer of insulation. No board widths less than 6" (152 mm) are allowed. Install a minimum of six fasteners and plates per board.

Coverboard Securement – Mechanically Fastened

Install UltraFast Fasteners and Plates at a minimum rate of one fastener per every 2 ft^2 (0.19 m^2). Fasteners must pierce the top flute of the deck at a minimum of 1" (25 mm).

Membrane Application

Before installation, unroll the JM TPO 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.

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 mechanically fastening using High Load Fasteners and Plates or other approved fasteners appropriate for substrates.