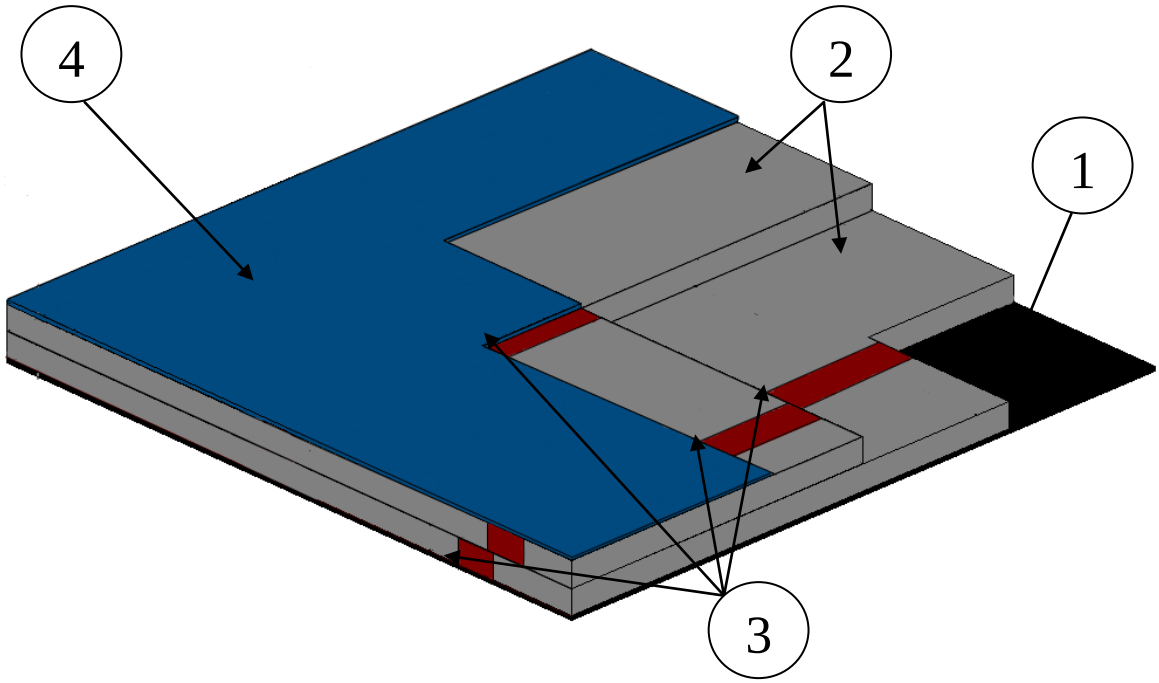
3M Company
Design No. 3MU/AF 180-04
Applied Fireproofing
Jet Fire Plate
3M™ Interam™ E-5 and E-5A-4 Series Endothermic Mat – 2 Layers
ISO 22899-1:2007(E), Determination of the Resistance to
Jet Fires of Passive Fire Protection Materials
Temperature Rise 26°C – Time 15 minutes
Temperature Rise 66°C – Time 30 minutes
Temperature Rise 98°C – Time 45 minutes
Temperature Rise 121°C – Time 60 minutes
Temperature Rise 163°C – Time 90 minutes
Temperature Rise 215°C – Time 120 minutes
Temperature Rise 235°C – Time 150 minutes
Temperature Rise 236°C – Time 180 minutes



1. **STEEL PANEL:** A steel panel constructed of 10mm (0.39 in.) thick steel complying with ISO 630:1995, Grade Fe 430 representing steelwork with no corners or edge features or cylindrical vessels, pipes and tubular sections of outside diameter greater than 500mm (19.7 in.).

2. **CERTIFIED MANUFACTURER:** 3M Company

CERTIFIED PRODUCT: Applied Fireproofing

MODEL: 3M™ Interam™ E-5 and E-5A-4 Series Endothermic Mat

ENDOTHERMIC MAT: Install two layers of foil-faced flexible mat tightly over the steel panel (Item 1). Install first layer with continuous vertical sections of Endothermic Mat with vertical joints fit tightly together and foil facing away from the steel panel.

Adhere first layer to the steel panel (Item1) using 3M Hi-Strength 90 Adhesive applied to the steel and the back of the first layer being applied. Use rollers over the entire layer to ensure complete adhesion is achieved. Tape all joints of first layer with Aluminum Tape (Item 3) and use rollers over tape to ensure complete adhesion. Install the additional layer with joints offset min. 51mm (2 in.) from joints of the previous layer. Adhere the additional layer to the previous layer of Endothermic Mat using 3M Hi-Strength 90 Adhesive. Use rollers over the entire layer to ensure complete adhesion is achieved. Tape all joints of each additional layer with Aluminum Tape (Item 3).

3. **ALUMINUM TAPE:** Apply 102mm (4 in.) wide pressure sensitive tape with aluminum foil-facing to all joints of each layer of the Endothermic Mat (Item 2).

4. **STEEL SHEATHING:** Install one layer of 26 GA (0.455mm (0.0179 in.) thick) T-304 stainless steel sheathing over the Endothermic Mat (Item 2) in continuous vertical sheets. Install steel sheathing with min. 76mm (3 in.) overlap at joints to create a stepped surface installation. Adhere each piece of Steel Sheathing to the final layer of Endothermic Mat (Item 2) using 3M Hi-Strength 90 Adhesive applied to the edges of the back of the Steel Sheathing face of the corresponding locations on the final layer of Endothermic Mat (Item 2).

5. **PINS** (Not Shown)**:** Install nominal 35mm (1-3/8 in.) long, 12 GA (2.70mm (0.106 in.) thick) stainless steel cup-head pins with a min. 38mm (1-1/2 in.) washer. Install pins by pre-drilling holes through the Steel Sheathing (Item 4) and the Endothermic Mat (Item 2) with an 11mm (7/16 in.) drill bit and welding the pins to the Steel Panel (Item1). Pins shall be spaced both vertically and horizontally 305mm (12 in.) on center.