3M Fire Protection Products

3M™ Interam™ Endothermic Mat – For Commercial Buildings

Tested in accordance with AS1530-4-2005

Flexible Fire Protection

Get wrapped up in 3M™ Interam™ Endothermic Mat

3M™ Interam™ Endothermic Mat opens up new opportunities in building design, allowing architects to fulfill the UL mark of certification while enhancing design flexibility. Using advanced endothermic materials, 3M™ Interam™ Endothermic Mat helps prevent heat penetration via a chemical reaction, which absorbs heat energy. Its space-saving, conformable construction offers easy installation in a broad range of applications, providing flexible, full envelope protection in critical areas of all types.

Because of its flexibility, architects can use 3M™ Interam™ Endothermic Mat to meet fire protection requirements in nearly any area and along virtually any wall, helping to reduce the need to make revisions to existing plans. This represents a significant cost-saving and time-saving benefit for both builders and architects. With 3M™ Interam™ Endothermic Mat, architects can now provide guaranteed fire protection without being locked in to the design constraints of traditional fire-stopping methods.

3M is your fire protection industry leader. Trust our proven innovative technologies to help protect people and property for decades to come.

3M™ Interam™ Endothermic Mat

Flexible Fire Protection Solutions

MEMBRANE PENETRATIONS

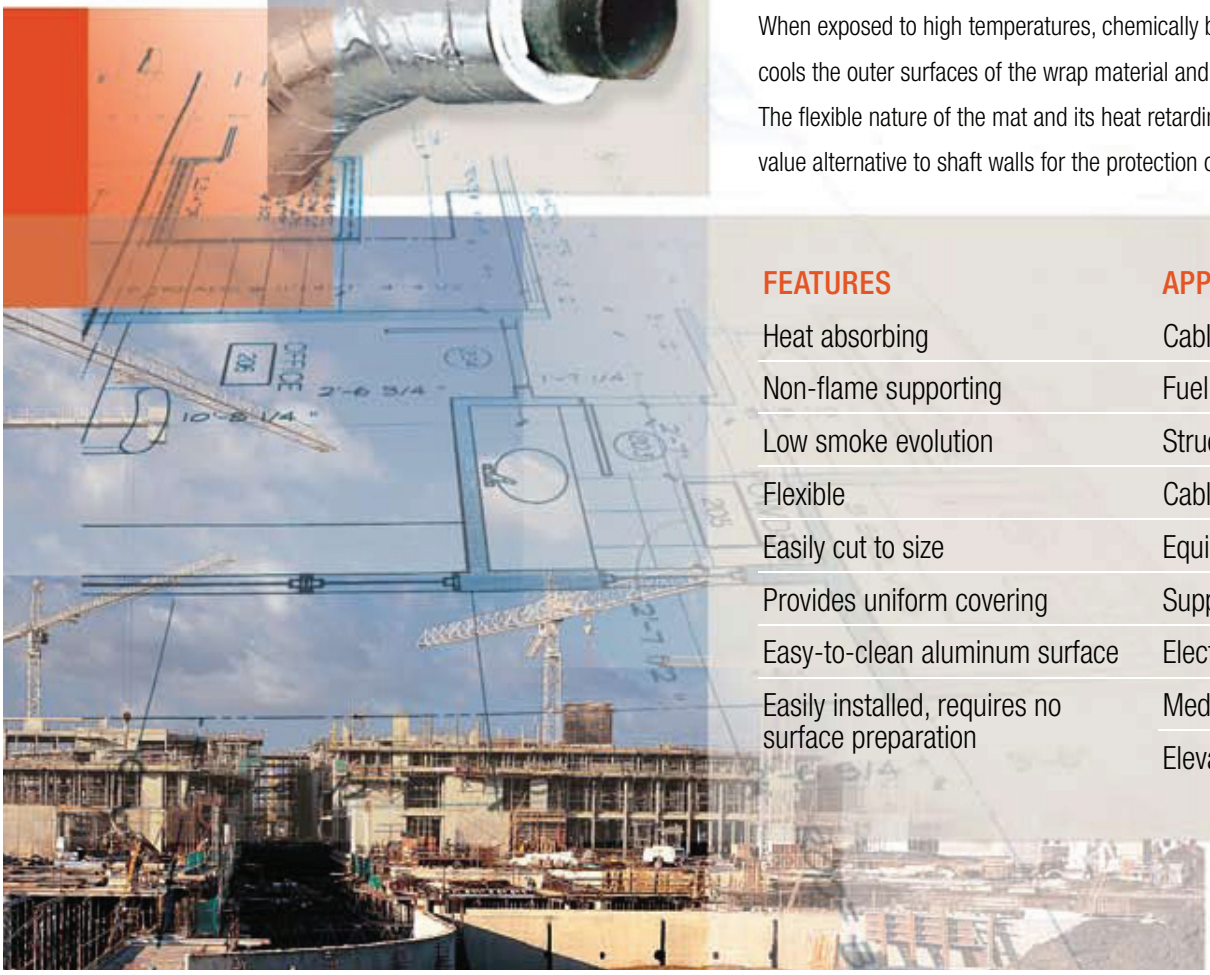
Protecting some large membrane penetrations can be a challenge, with putty pads proving insufficient to cover larger areas. 3M™ Interam™ Endothermic Mat offers an excellent alternative, providing a fire-tested, code-approved method with the capacity to protect significant spaces containing electrical panels, elevator call boxes, safe deposit boxes and medical gas boxes.

ELECTRICAL CIRCUIT PROTECTION

When a fire occurs, the electrical systems that control critical areas such as control rooms, ventilation, lighting, alarms and elevators must remain operational in a building. With 3M™ Interam™ Endothermic Mat, cable raceways, conduit, equipment shrouds and other electrical systems can be protected for up to three hours in intense heat.

FUEL LINE PROTECTION

Protection of fuel lines for building generators is often an overlooked specification item, leading to urgent and often messy situations during construction. 3M™ Interam™ Endothermic Mat E-5A-4 can help provide fire protection for dual walled steel pipe fuel lines for 1, 2, or 3 hour protection. When exposed to high temperatures, chemically bound water in the mat cools the outer surfaces of the wrap material and retards heat transfer. The flexible nature of the mat and its heat retarding feature provides a high value alternative to shaft walls for the protection of fuel lines.

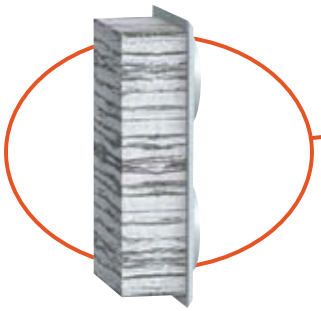


FEATURES	APPLICATIONS
Heat absorbing	Cable trays
Non-flame supporting	Fuel lines
Low smoke evolution	Structural steel
Flexible	Cable bundles
Easily cut to size	Equipment shrouds
Provides uniform covering	Support members
Easy-to-clean aluminum surface	Electrical panels
Easily installed, requires no surface preparation	Medical gas boxes
	Elevator call boxes

Typical Building Applications

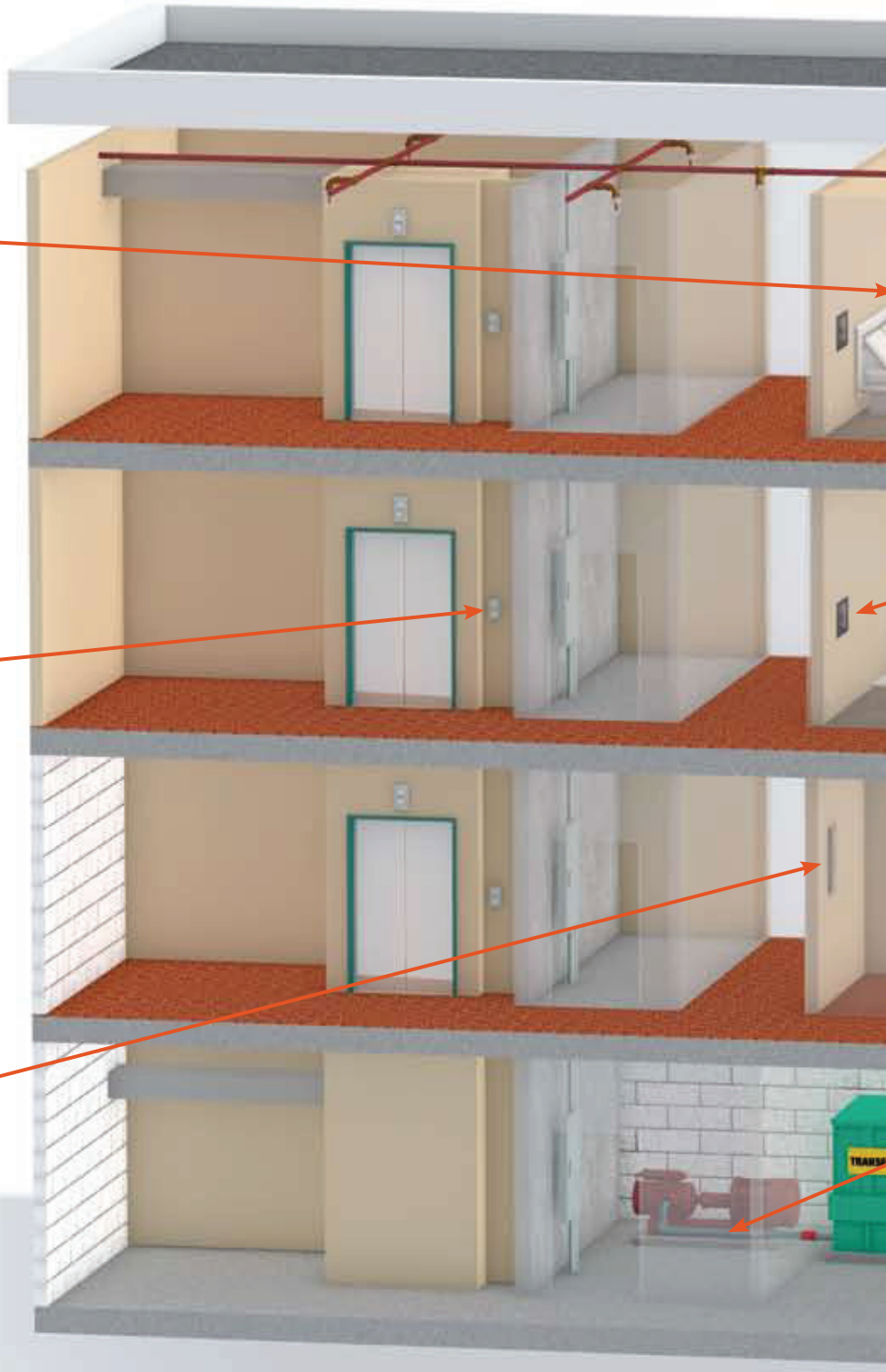
Using 3M™ Interam™ Endothermic Mat

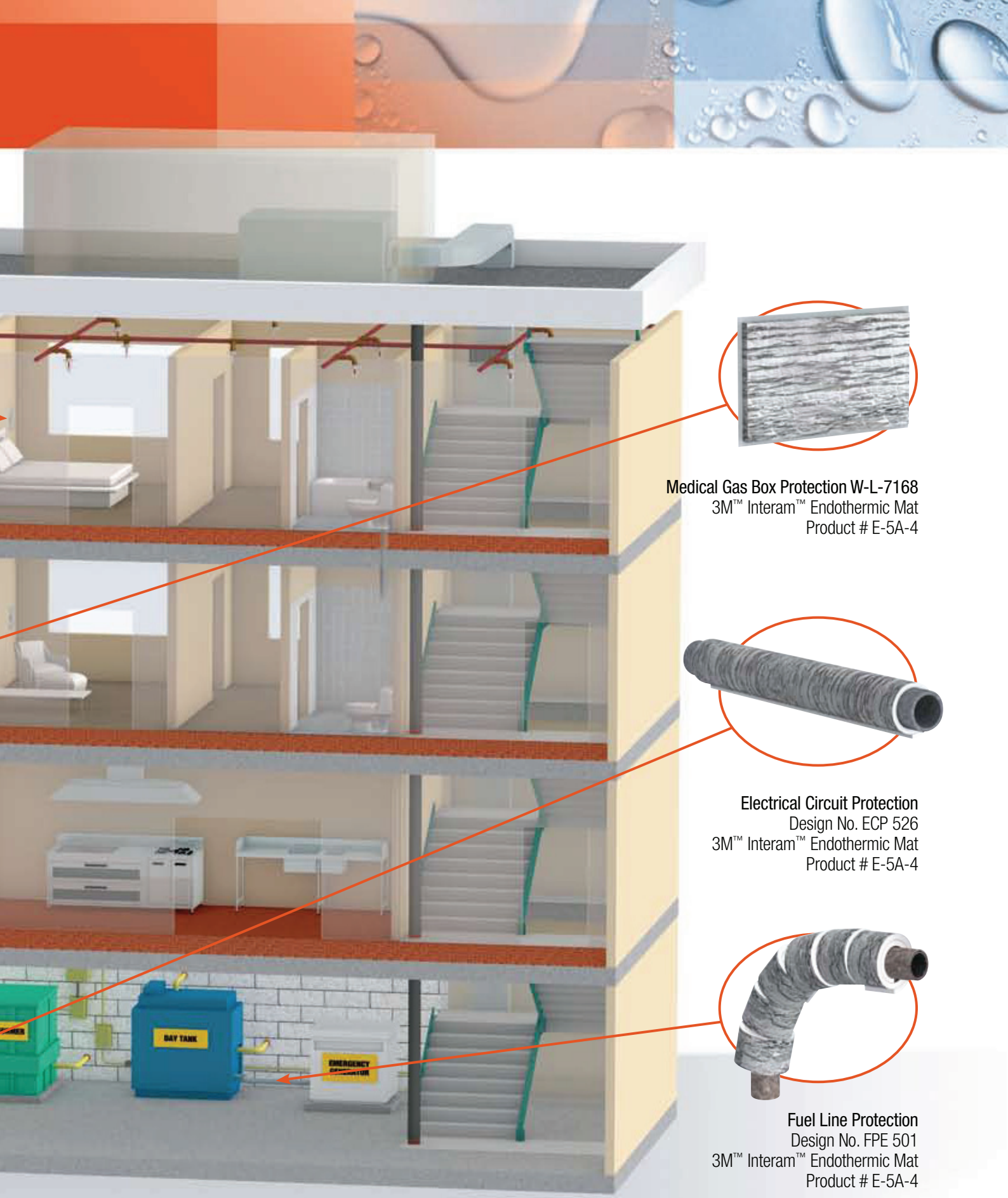
Safe Deposit Box W-L-7168
3M™ Interam™ Endothermic Mat
Product # E-5A-4



Elevator Call Box W-L-7168
3M™ Interam™ Endothermic Mat
Product # E-5A-4

Electrical Panel W-L-7168
3M™ Interam™ Endothermic Mat
Product # E-5A-4





Medical Gas Box Protection W-L-7168
3M™ Interam™ Endothermic Mat
Product # E-5A-4

Electrical Circuit Protection
Design No. ECP 526
3M™ Interam™ Endothermic Mat
Product # E-5A-4

Fuel Line Protection
Design No. FPE 501
3M™ Interam™ Endothermic Mat
Product # E-5A-4

Fire protection so flexible

you might get carried away.

3M™ Interam™ Endothermic Mat

protection so flexible that you could wrap nearly anything!

3M™ Interam™ E-5A-4 Endothermic Mat is flexible and easy to apply to virtually anything. The advanced endothermic materials contain chemically bound water that is released when exposed to high temperatures. This cools the surrounding materials to significantly retard heat transfer. With this advanced fire-stopping technology and the uniquely conformable construction of 3M™ Interam™ E-5A-4 Endothermic Mat, builders can help protect and control virtually any area in commercial construction applications with unprecedented ease.

UL Approved System W-L-7168

1. **Wall Assembly** – The 1 or 2 hour fire rated framed gypsum board wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

   A. **Studs** – Wall framing shall consist of steel channel studs. Steel studs to be min 3 $^{5}/_{8}$ in. (92 mm) wide and spaced max 24 in. (610 mm) OC. An additional framing member shall be used to form a shelf within the wall cavity to support the steel box (Item 2) and mat fill material (Item 3). The framed opening is to be 1 in. (25 mm) wider than the width of the steel box.

   B. **Gypsum Board*** – The gypsum board type, thickness, number of layers and orientation shall be as specified in the individual Wall and Partition Design. Size of cutout made to accommodate steel box (Item 2) is to be 1 in. (25 mm) wider and 1 in. (25 mm) higher than the width and height of the steel box.

   The hourly F and T Ratings of the firestop system are equal to the hourly fire rating of the wall in which the firestop system is installed.

2. **Steel Box** – Max 19 in. (483 mm) wide by max 32 in. (813 mm) high by max 3 ½ in. (89 mm) deep recessed steel utility box with hinged steel door and mounting flange. Steel box secured to steel studs with steel screws after application of mat material (Item 3) on exterior surfaces of steel box. Bottom and/or top of steel box may be penetrated by up to two max 1½ in. (38 mm) diameter copper, steel or iron pipes or tubes. Open pipes or tubes which terminate within the box shall be sealed with caulk (Item 4) or plugged with a ball of putty (Item 5).

3. **Fill, Void or Cavity Materials*** – **Mat** – Nominal 0.4 in. (10 mm) thick aluminum foil faced endothermic mat supplied in 24 in. wide rolls. Individual pieces of mat cut to cover four sides and back of box and laminated to box with high-strength, fast, contact-type adhesive (foil face exposed). The mat sections on the top and bottom of the box shall be cut to overlap the mat sections on the sides of the box. The mat section on the back of the box shall be cut to overlap the edge of the mat sections on the top, bottom and vertical sides of box. Circular cutouts made in the mat to accommodate the pipes or tubes to be ¼ to ½ in. (6 to 13 mm) larger than outside diameter of pipe or tube. All corners and butted seams in the mat are to be covered with min 2 mil aluminum foil tape.

   3M COMPANY – Type E-5A-4 or E-5A-4 Mat

4. **Fill, Void or Cavity Materials*** – **Caulk or Sealant** – (Not Shown) – Nom ¼ in. (6 mm) diameter bead of caulk applied to the edge of the mat material around the perimeter of the box mounting flange. Additional caulk fill material shall be used to completely fill each circular cutout made in the mat material to accommodate a pipe or tube. The end of each open pipe or tube which terminates within the box shall be sealed with a min ½ in. (13 mm) depth of caulk.

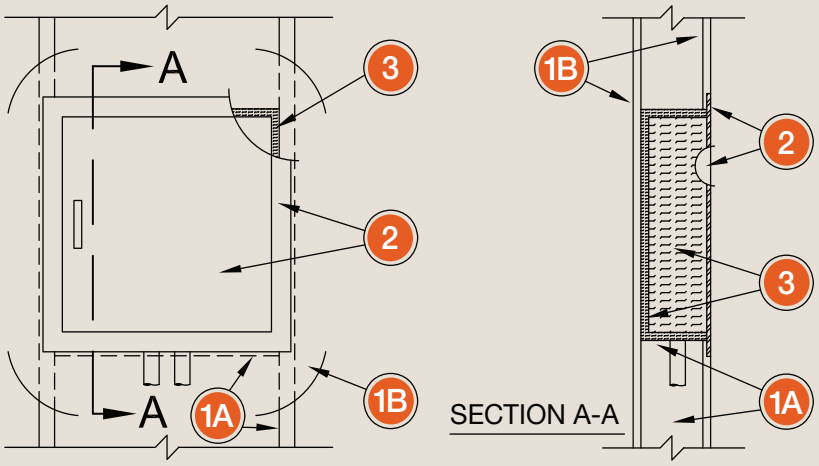
   3M COMPANY – Type CP-25WB+ Caulk, FB-3000WT Sealant

5. **Fill, Void or Cavity Materials*** – **Putty** – (Not Shown) – As an alternate to the caulk (Item 4), the end of each open pipe or tube which terminates within the box may be sealed with a min ½ in. (13 mm) depth of putty fill material.

   3M COMPANY – Type MP+ Moldable Putty

Additional materials needed: Spray 90 Spray Adhesive, CP-25WB+ Firestop Caulk.
*Bearing the UL Classification Mark.

System No.
W-L-7168
March 15th, 2007
F Ratings - 1 and 2 Hr (see Item 1)
T Ratings - 1 and 2 Hr (see Item 1)



Product Number	Description	Size	Unit	Case	UPC
E-5A-4	Endothermic Mat	24.5" x 20' x 0.4"	Roll	1 Roll/Case	0-51115-16571-4

Additional application materials

Product Number	Description	UPC
Spray 90	Spray Adhesive	083631-8
CP-25WB+	Firestop Caulk	011638-9

For CAD drawings and other UL System details, please see our website www.3M.com/firestop or call 1-800-328-1687.