



Interam™ E-Mat

Endothermic Mat

Description

3M™ Interam™ E-Mat Endothermic Mat is an endothermic mat designed to be wrapped around items requiring fire protection—electrical raceways, shrouds for motor-operated valves and structural steel. The flexible felt-like material is made up of a combination of ceramic fibers and an inorganic endothermic material.

The endothermic property of Interam E-Mat endothermic mat means that it reduces heat penetration by chemically absorbing thermal energy. At high temperatures, E-Mat endothermic mat reacts chemically to significantly retard heat transfer. However, under normal operating conditions, heat, such as that generated by power cables, is allowed to escape through the mat rather than be trapped by it.

The Interam E-Mat endothermic mat system is applied in layers and can therefore be tailored to fulfill a variety of fire protection needs. Additional layers means additional fire protection.

Standard designs for 1-, 2-, and 3-hour structural steel fire protection and 30-minute, 1-hour and 3-hour rated electrical systems protection are available.

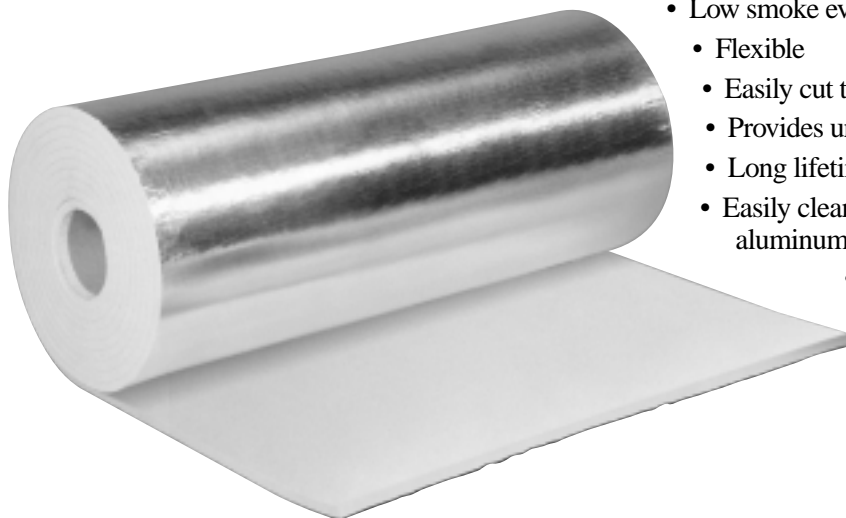
Fire Protection Applications

- Cable trays
- Conduits
- Structural steel
- Cable bundles
- Equipment shrouds
- Support members



Features

- Heat absorbing
 - Non-flame supporting
 - Low smoke evolution
 - Flexible
 - Easily cut to size (scissors, shears, utility knife)
 - Provides uniform covering
 - Long lifetime
 - Easily cleaned aluminum surface
- Easily installed—no surface preparation required



Layer Requirements	E-Mat 3	E-Mat 4
Mat Laminations	3 mil. aluminum/scrim	3 mil. aluminum/scrim
Mat Thickness	0.310 in (7.87 mm)	0.408 in (10.3 mm)
Roll Length	25 ft (7.62 m)	20 ft (6.09 m)
Roll Width	24.5 in (622 mm)	24.5 in (622 mm)
Roll Weight	71.4 lbs (32.3 kg)	74.6 lbs (33.8 kg)
Weight/Unit Area	1.40 lbs/ft ² (6.83 kg/m ²)	1.83 lbs/ft ² (8.93 kg/m ²)
Bulk Density	54 lbs/ft ³ (865 kg/m ³)	54 lbs/ft ³ (865 kg/m ³)
Mat Area/Roll	51.0 ft ² (4.73 m ²)	40.8 ft ² (3.79 m ²)
Color	white	white

Properties and Characteristics	Surface Burning Characteristics UL 723 (ASTM E-84)	
	Flame spread	0.7
	Fuel contribution	0
	Smoke developed	0
	Thermal Conductivity	0.087 BTU/ft-hr-°F @ 200°F (0.151 W/m-°C @ 93°C) 0.101 BTU/ft-hr-°F @ 350°F (0.175 W/m-°C @ 177°C) 0.058 BTU/ft-hr-°F @ 600°F (0.100 W/m-°C @ 316°C) 0.068 BTU/ft-hr-°F @ 750°F (0.118 W/m-°C @ 399°C) 0.081 BTU/ft-hr-°F @ 900°F (0.140 W/m-°C @ 482°C)
	Mean Specific Heat	0.330 BTU/lb-°F @ 75-400°F (1385 J/kg-°C @ 24-200°C) 0.276 BTU/lb-°F @ 75-1650°F (1155 J/kg-°C @ 24-900°C)
	Loss on Ignition	28%
Tensile Strength (with aluminum foil)	110 psi (758 KPa)	

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