

# Product Information Sheet



## FyreWrap E-Mat® Endothermic Mat

### INTRODUCTION

FyreWrap E-Mat® endothermic mat from Alkegen is a high-temperature insulation wrap that provides protection from fire by releasing chemically bound water to significantly limit heat transfer through the material. E-Mat has low organic content resulting in a low loss on ignition (LOI) value and low smoke generation and flame propagation. It is thin and flexible, providing space savings and ease of installation on complex shapes or small diameter items.

The Alkaline Earth Silicate (AES) fiber chemistry is designed to allow rapid biological clearance. E-Mat meets the European regulatory requirement 1272/2008 (formerly European Commission Directive 97/69/EC) and does not require any special health hazard labeling.

FyreWrap E-Mat's unique combination of endothermic properties and high temperature stability are specifically designed to withstand high heat and severe fire exposure conditions and limit fire penetration, and heat transfer through the material. Thin, lightweight systems combined with a flexible product form result in valuable space savings, low installation costs and solutions for complex job site conditions.

#### FyreWrap E-Mat® provides the following product features:

- Endothermic
- Significantly retards heat transfer
- Keeps mat surface cool
- Thin and very flexible
- Easy to bend around corners or small diameter items
- Manufactured in the USA
- No special health hazard labeling

### APPLICATIONS

FyreWrap E-Mat® can be utilized as a uniform covering, protective enclosure or component in a variety of passive fire protection applications in commercial buildings, industrial facilities and transportation applications.

#### Typical applications include:

- Electrical Circuit Protection Systems
- Metallic Piping
- Communication Systems
- Membrane and Through-penetrations
- Cable, Cable Tray and Conduit Enclosures
- Structural Steel Protection
- Energy Storage Systems and Battery Enclosures



### TYPICAL PRODUCT PROPERTIES

<b>Color</b>	White
<b>Melting Point</b>	2390°F (1310°C)
<b>Temperature Grade</b>	2300°F (1260°C)
<b>Rec. Operating Temp</b>	2012°F (1100°C)

Data are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes.

### PRODUCT FORMS (CURRENT COMMERCIAL VERSIONS)

<b>Basis Weight*</b>	0.35 lbs/ft <sup>2</sup> (1700 g/m <sup>2</sup> )
<b>Thickness*</b>	0.12" (3 mm)
<b>Dimensions</b>	48" x 650' (1200 mm x 198 m)
<b>Mat Area Per Roll</b>	2600 ft <sup>2</sup> (242 m <sup>2</sup> )
<b>Roll Weight</b>	910 lbs. (413 kg)
<b>Facing*</b>	Un-faced

<b>Basis Weight*</b>	1.33 lbs/ft <sup>2</sup> (6500 g/m <sup>2</sup> )
<b>Thickness*</b>	1/2" (13 mm)
<b>Dimensions</b>	24" x 20' (610 mm x 6000 mm)
<b>Mat Area Per Roll</b>	40 ft <sup>2</sup> (3.7 m <sup>2</sup> )
<b>Roll Weight</b>	53 lbs. (117 kg)
<b>Facing*</b>	Poly-Aluminum Foil Scrim

For minimum order quantities, material lead time and availability, please contact our Customer Service Department.

\*Nonstandard thickness, basis weight, widths, lengths and facings (or unfaced E-Mat) are available upon request



# Product Information Sheet



## FyreWrap E-Mat® Endothermic Mat



FyreWrap E-Mat® being cut with a common utility knife

### INSTALLATION

FyreWrap E-Mat® is thin, flexible and easy to cut with common tools making installation simple on complex shapes and items with small diameters. It provides a uniform covering with minimal bulk, offering significant space savings relative to traditional fire protection enclosure options. Available with a poly-foil aluminum foil facing, E-Mat is suitable for indoor applications. Additional field applied weather resistant coverings are recommended for exterior installations.

### HEALTH AND SAFETY INFORMATION

FyreWrap E-Mat® from Alkegen, according to the European Regulation 1272/2008 (formerly Directive 97/69/EC), possesses a fiber chemistry within the regulatory definition of a "man-made vitreous (silicate) fiber with random orientation with alkaline oxide and alkaline earth oxide content greater than 18% by weight." AES fibers utilized in E-Mat have been tested pursuant to EU protocol ECB/TM/26, Revision 7, Nota Q, European Regulation 1272/2008, with results that are below regulatory thresholds. As a result, FyreWrap E-Mat does not require additional labeling or further testing.

Refer to the product Safety Data Sheet (SDS) for recommended work place practices and other product safety information.

The following is a registered trademark of Alkegen: FyreWrap. The test data shown are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes. Product Information Sheets are periodically updated by Alkegen. Before relying on any data or other information in this Product Information Sheet, you should confirm that it is still current and has not been superseded. A Product Information Sheet that has been superseded may contain incorrect, obsolete and/or irrelevant data and other information.

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FyreWrap® Fire Protection Products

### These products offer solutions in applications such as:

- Grease, HVAC Ducts
- Cable Trays, Conduits
- Control System Covers
- Above Ground Storage Tanks
- Marine Bulkheads, Decks
- Structural Steel
- Construction Joints
- Curtain Walls/Safing
- Circuit Protection
- Energy Storage Systems
- Railroad Tank Cars
- Transit Cars
- Ships
- Expansion Joints
- Fire Door Seals
- Chimney Liners
- Ceiling Air Diffusers
- Hazardous Material
- Battery Containment
- Storage Containers

Alkegen has a wide range of FyreWrap fire protection materials available to provide passive fire protection solutions in a variety of applications in the commercial building, industrial facility and transportation industries. Most product forms offer fire resistance, high temperature stability and low flame/smoke ratings. Many also are Listed and Labeled by Nationally Recognized Testing Labs for specific material properties and/or fire protection system designs. For additional information about product performance or to identify the recommended product for your fire protection application, please contact the Alkegen Customer Service Department at 716-768-6500 and ask for the Fire Protection Application Engineering Group.

### Alkegen

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