

FyreWrap® Elite® Blanket

Introduction

FyreWrap® Elite® Blanket from Unifrax is a totally inorganic, flexible, high-temperature insulation blanket optimized for high-performance passive fire protection applications. FyreWrap Elite utilizes a calcium, magnesium, silicate chemistry to provide thermal insulation at continuous operating temperatures up to 2012°F (1100°C). This fiber chemistry has been combined with Unifrax's proprietary fiber spinning technology to create a specialty high-temperature blanket with optimized fire protection properties.

FyreWrap Elite Blanket is used in a wide range of fire protection applications including appliances, prefabricated ductwork, chimneys, etc.

General Characteristics

FyreWrap Elite Blanket is a flexible, strong, lightweight, needled blanket. Mechanical needling of the spun fibers eliminates the need for binders in the product's manufacture and results in a product with high tensile strength. Since Elite Blanket is completely inorganic, the product exhibits no smoke generation or outgassing in service. Elite Blanket combines a low thermal conductivity with excellent performance under transient fire conditions.

A series of green dots on the surface of the blanket make identification, tracking, and inspection of Elite Blanket simple on the job site or in the fabrication shop.

Product Forms

FyreWrap Elite Blanket is available in the following forms:

- Thickness ½", 1", 1.5", 2.0"
- Density 4, 6, 8, 10 PCF
- Width 24", 48"
- Length 12.5', 25'

Note: Some versions are non-standard. Check availability by contacting Unifrax customer service.

Typical Product Properties

ASTM E84, UL 723, ULC S102.2 – UL File No. R14514	Unfaced Blanket	Encapsulated
Flame Spread/Smoke Developed Rating.....	Zero/Zero	<25/<50
ASTM E136 Non-Combustibility Test.....	Passes	
ASTM C518 Durability Test	Passes; R-Value = 4.8 per inch at 75°F	
ASTM C518 Thermal Resistance	R-Value of Elite 1.5 (1½") = 7.2	



Applications

Appliances

- Residential self-cleaning ovens
- High-temperature commercial cooking appliances

Hearth Products

- Chimney liner insulation
- Heat shields

Commercial Buildings

- Prefab grease exhaust ducts
- Pre-insulated grease duct access doors
- Expansion joint seals
- Through-Penetration Firestop packing

Typical Product Parameters

Chemical Analysis (%)		
SiO ₂		61 to 67
CaO		27 to 33
MgO		2 to 7
Other		<1



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

Typical Product Properties

Product Form	Color	Temperature Grade ⁽¹⁾	Recommended Operating Temperature ⁽²⁾	Melting Point	Specific Heat	Specific Gravity
FyreWrap Elite Blanket	White	1260°C 2300°F	1100°C 2012°F	1310°C 2390°F	1000j/kgk (1000°C)	2.67 (g/cm ³)

⁽¹⁾Temperature Grade based on European Norm 1094 (EN1094)

⁽²⁾The recommended operating temperature of Elite products is determined by irreversible linear change criteria, not melting point.

Health and Safety Information

Elite Blanket from Unifrax, according to 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." Elite fibers have been tested pursuant to EU protocol ECB/TM/26, Revision 7, Nota Q, Directive 97/69/EC, with results that are below regulatory thresholds. As a result, Elite Blanket does not require additional labeling or further testing. Refer to the product Safety Data Sheet (SDS) for recommended work practices and other product safety information.

Other Fire Protection Products and Applications

Unifrax offers many UL listed Fiberfrax[®] and FyreWrap[®] product forms and FyreWrap fire protection materials for passive fire protection applications, such as:

Product	UL File Number
FyreWrap [®] Duct Insulation	R14514
Insulfrax [®] S Blanket	R14514
FyreWrap [®] – Expanding Paper XFP [®]	R15435
Fiberfrax [®] Durablanket [®] Ceramic Fiber Blanket	R14514
Fiberfrax [®] Duraboard [®] Ceramic Fiber Board LD	E75289
Fiberfrax [®] Ceramic Fiber Papers (110/440)	E75289
Fiberfrax [®] Ceramic Fiber Papers (970)	MH7030
Fiberfrax [®] Lo-Con [™] Felt	MH7030
Fiberfrax [®] Moist Pak-D [®]	E75289

These products offer solutions in applications such as:



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

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

Unifrax 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.

For additional information about product performance or to identify the recommended product for your fire protection application, please contact the Unifrax Fire Protection Application Engineering Group at 716-768-6500.

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

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Product Information Sheets are periodically updated by Unifrax. 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.

FyreWrap

Unifrax I LLC
Corporate Headquarters
600 Riverwalk Parkway
Suite 120
Tonawanda, NY 14150
Telephone: 716-768-6500
Internet: www.unifrax.com
Email: info@unifrax.com