

Isofrax® 1400 Blanket

Description

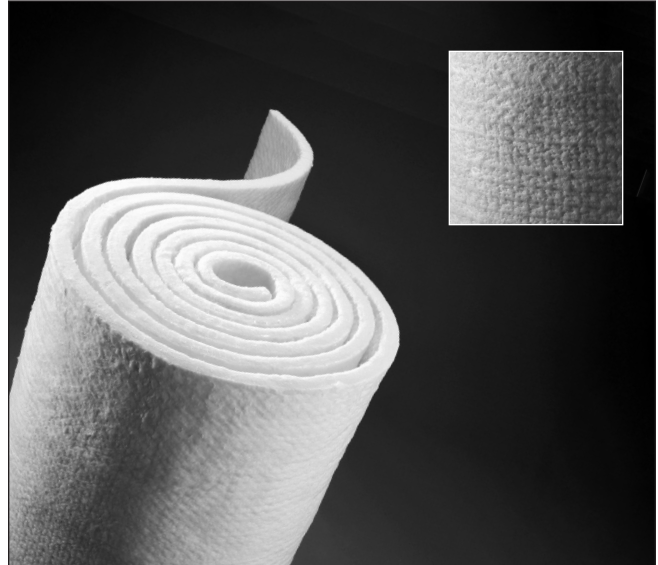
Isofrax® 1400 Thermal Insulation from Unifrax is the latest generation of proven, revolutionary low bio-persistent fibre technology. Isofrax® 1400 Blanket is manufactured using enhanced fiberization techniques combined with new proprietary processing technology, offering both a 1400 grade classification and an increased use limit temperature in applications up to 1300°C. The needled blanket is completely inorganic and retains its strength, flexibility and thermal properties in many working environments, without the generation of smoke or fumes. Available in a range of density and thickness combinations, Isofrax 1400 Blankets can be used in a wide variety of high-temperature applications.

Isofrax 1400 Blanket has excellent chemical stability and is unaffected by most chemicals except hydrofluoric and phosphoric acids and concentrated alkalis. If wet by water or steam, thermal and physical properties remain unaffected after drying.

General Characteristics

Isofrax 1400 Blanket products have the following outstanding characteristics:

- High-temperature stability
- Low thermal conductivity
- Resistance to thermal shock
- Lightweight
- Good handling strength
- Low heat storage
- Excellent flexibility



Classification temperature 1400°C (EN 1094-1)

Typical Applications

- High-temperature furnace and kiln linings
- Furnace door linings and seals
- Boiler insulations
- Pipe and duct insulation
- Heat shields
- Seals and gaskets



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Typical Product Parameters

		Isofrax 1400 Blanket		
<i>Typical Chemical Analysis (wt. %)</i>				
SiO ₂		70 – 80		
MgO		18 – 27		
Trace		0 – 4		
<i>Physical Properties</i>				
Colour		White		
Classification Temperature		1400°C (2550°F)		
Use Limit*		1300°C (2370°F)		
Melting Point		1520°C (2760°F)		
Mean Fibre Diameter (microns)		4.5		
<i>Permanent Linear Shrinkage (%) 24h soak EN 1094-1</i>				
1400°C		2.7		
Density		96 kg/m³ (6 pcf)	128 kg/m³ (8 pcf)	160 kg/m³ (10 pcf)
<i>Tensile Strength</i>		40 kPa (5.8 psi)	60 kPa (8.7 psi)	80 kPa (11.6 psi)
<i>Thermal Conductivity ASTM C201</i>				
W/mK (Btu in/hr ft ² °F)				
Mean Temp.				
200°C	392°F	0.07 (0.51)	0.07 (0.49)	0.07 (0.49)
400°C	752°F	0.13 (0.89)	0.13 (0.90)	0.12 (0.83)
600°C	1112°F	0.22 (1.56)	0.21 (1.46)	0.19 (1.29)
800°C	1472°F	0.35 (2.44)	0.31 (2.15)	0.25 (1.76)
1000°C	1832°F	0.49 (3.37)	0.43 (2.98)	0.35 (2.42)
1200°C	2192°F	0.66 (4.55)	0.56 (3.89)	0.45 (3.14)

*The maximum continuous use limit temperature for these products depends upon operating and application conditions, and also the engineered design of the insulation lining. For additional information and support regarding product performance or to identify the recommended product for your application, please contact your nearest Unifrax Application Engineering office.

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

Availability

Thickness	Density			Roll Length
	96 kg/m ³ (6 pcf)	128 kg/m ³ (8 pcf)	160 kg/m ³ (10 pcf)	
13mm (0.5")	✓	✓	*	12.50m (41 LF)
25mm (1.0")	✓	✓	*	7.32m (24 LF)
38mm (1.5")	*	*	*	5.00m (16.4 LF)
50mm (2.0")	*	✓	*	3.66m (12 LF)

Standard roll width is 610mm (24").

Products in the table above listed with a checkmark (✓) are stocked and available.

Products marked with an asterisk (*) are not stocked as standard but are available on request subject to minimum order requirements.

Other thicknesses/sizes and versions with aluminium foil and other coverings are available upon request.



Handling Information

A Safety Data Sheet (SDS) has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on handling precautions and emergency procedures. This must be consulted and fully understood before handling, storage or use.

Isofrax fibre has a high solubility in simulated body fluids and hence carries no hazard classification, meeting stringent European regulatory requirements. Isofrax 1400 fibres are exonerated from classification as hazardous (tested according to Note Q Regulation (EC) No. 1272/2008).



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