

Product Information Sheet

Isofrax®

Isofrax® 1400 Anchor-Loc® Modules

DESCRIPTION

Isofrax® 1400 Modules combine the performance features of the proven Anchor-Loc® Module attachment systems with the new Isofrax® 1400 Thermal Insulation from Alkegen.

Isofrax® 1400 Thermal Insulation from Alkegen 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 for 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 Blanket 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.

Isofrax® 1400 Anchor-Loc Modules are typically manufactured from folded Isofrax 1400 Blanket. The fold orientation may be on the hot face or cold face, subject to customer preference. These modules can be produced with various anchoring systems to enable quick, easy and efficient installation for most lining applications.

GENERAL CHARACTERISTICS

Isofrax® 1400 Module products have the following outstanding characteristics:

- High-temperature stability
- Low thermal conductivity
- Resistance to thermal shock
- Lightweight
- Low heat storage
- Fast installation & selection of attachment systems



Isofrax 1400 Module Configurations

TYPICAL APPLICATIONS

- Heat treatment and forge furnaces
- Ceramic tunnel kilns and intermittent kilns
- Annealing furnaces
- Door and cover linings
- Stress relieving furnaces
- Carbottom heat treating furnaces
- Ladle preheat stands
- Stack, flue and duct linings
- Process heaters
- Incinerators and boilers

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TYPICAL PRODUCT PARAMETERS

		Isofrax 1400 Anchor-Loc Modules	
Typical Chemical Analysis (wt. %)			
SiO ₂		70 – 80	
MgO		18 – 27	
Trace		0 – 4	
Physical Properties			
Colour		White	
Product Density		170 & 190 kg/m³ (10 & 12 pcf)	
Classification Temperature		1400°C (2550°F)	
Use Limit*		1300°C (2370°F)	
Melting Point		1520°C (2760°F)	
Mean Fibre Diameter (microns)		4.5	
Density		170 kg/m³ (10 pcf)	190 kg/m³ (12 pcf)
Thermal Conductivity		W/mK (Btu in/hr ft² °F)	
Mean Temp.			
400°C	752°F	0.13 (0.87)	0.12 (0.83)
600°C	1112°F	0.20 (1.35)	0.17 (1.18)
800°C	1472°F	0.28 (1.91)	0.24 (1.69)
1000°C	1832°F	0.38 (2.64)	0.34 (2.36)
1200°C	2192°F	0.51 (3.54)	0.44 (3.05)

* 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 Alkegen 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.

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AVAILABILITY

Module Dimensions (mm)		
Length	Width	Thickness
300mm (12")*	300mm (12")*	100mm to 350mm (4" to 14")*

*U.S. produced modules dimensionally rounded to the nearest inch.
Other densities, thicknesses, block sizes may be available on request subject to minimum order requirements.
RX2 = Side fixing system. Standard grade AISI 321
TL = Thread-Loc. Centre fixing system. Standard grade AISI 304
WL = Weld-Loc. Centre fixing system. Standard grade AISI 304
Other anchoring system options available subject to 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).

The following are registered trademarks of Alkegen: Isofrax.

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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Alkegen
Headquarters
5215 N. O'Connor Blvd, Suite 2300
Irving, TX 75039
Telephone: 716-768-6500
Website: www.alkegen.com
Email: info@alkegen.com

