

Product Information Sheet

Insulfrax®

Insulfrax® 1300 HT Blanket

Description

Insulfrax® 1300 HT Blanket products represent the next generation of low bio-persistent (LBP) thermal insulation from Alkegen. This new innovative product combines superior thermal performance with enhanced operating temperature capability. This lightweight, needled blanket is manufactured using proprietary fiberization techniques, offering both a 1300 grade classification and a continuous use temperature in applications up to 1200 °C.

Insulfrax 1300 HT blanket is manufactured from alkaline earth silicate (AES) wool and offers effective solutions to a variety of thermal management challenges over a broad temperature range. The product is completely inorganic and binder free with a smooth surface finish, and retains its strength, flexibility, and thermal properties in many working environments without the generation of smoke or fumes. The blanket provides 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

Insulfrax 1300 HT Blanket products have the following outstanding characteristics:

- High temperature stability (up to 1300°C)
- Low thermal conductivity
- Thermal shock resistance
- High tensile strength & resiliency
- Lightweight
- Excellent flexibility
- Low heat storage

Information on other applications available upon request. Any new and/or special use of these products, whether or not in an application listed in our literature, is advised to be submitted to our Application Engineering department for review and guidance on material selection.



Typical Applications

Insulfrax 1300 HT Blankets are the product of choice for a wide range of applications in a number of industries.

- High-temperature furnace and kiln linings
- Furnace door linings and seals
- Boiler insulation
- Pipe and duct insulation
- Heat shields
- Seals and gaskets
- Carbon baking furnace covers
- Glass tank crown insulation
- Expansion joints

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Typical Product Parameters

Insulfrax	1300 HT		
Typical Chemical Analysis (fibre wt. %)			
SiO ₂	72.0 – 78.0		
CaO + MgO	21.0 – 27.0		
Other Oxides	<3.0		
Physical Properties			
Colour	White		
Classification Temperature (°C)*	1300		
Continuous Use Temperature (°C)**	1200		
Mean Fibre Diameter (microns)	3.6		
Permanent Linear Shrinkage (%) 24-hour soak EN 1094-1			
1300 °C	3.4		
Density (kg/m³)	96 kg/m³	128 kg/m³	160 kg/m³
Thermal Conductivity (W/mK) – ASTM C-201			
Mean Temperature			
200°C	0.07	0.06	0.06
400°C	0.11	0.10	0.09
600 °C	0.17	0.16	0.15
800 °C	0.26	0.23	0.21
1000 °C	0.36	0.31	0.29
1200 °C	0.56	0.49	0.45
Tensile Strength (kPa)			
	44	58	62

*The Classification Temperature is not a definition of the operational temperature use limit of these products, especially when long-term physical or dimensional stability is a factor. The classification temperature is the temperature at which irreversible linear shrinkage does not exceed a given value after a 24-hour heat soak test. For applications where long-term stability is not a requirement, products may be successfully used at temperatures well in excess of their Classification Temperature. For continuous use applications requiring long-term stability, routine practice is to utilize materials in respect to their continuous use temperature.

**The Continuous Use Temperature is a recommended maximum operating temperature for the material usage under clean, oxidizing atmosphere conditions. For certain application conditions (specific chemical contaminants, reducing atmospheres, etc.), the Continuous Use Temperature may be reduced.

Data are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes. For assistance or further clarification, please contact your nearest Alkegen Application Engineering office.

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Availability

Thickness (mm)	Density (kg/m³)			Roll length (m)
	96	128	160	
13mm	✓	✓	*	12.50
19mm	*	*	*	10.00
25mm	✓	✓	✓	7.32
38mm	✓	✓	*	5.00
50mm	✓	✓	✓	3.66

Standard roll width is 610mm.

Products in the table above listed with a checkmark (✓) are standard items.

Products marked with an asterisk (*) are not standard items but are available on request and may be subject to minimum order requirements.

Other thicknesses, sizes and densities are available on request subject to minimum order requirements.

Versions with aluminium foil and other coverings are also available.

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.

Insulfrax fiber is an AES (alkaline earth silicate) wool that is exonerated from classification by virtue of Note Q, as detailed under regulation (EC) No 1272/2008 (CLP) and as such is considered to be a low bio-persistent (LBP) substance.

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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

European Office

Glasshouse, Alderley Park
Nether Alderley
Cheshire
SK10 4TG
United Kingdom

Customer service email:
customerserviceeurope@alkegen.com

