

Product Information Sheet

Insulfrax®

Insulfrax® LTX™ Blanket

Description

Insulfrax® LTX™ Blankets are the latest addition to the Insulfrax product family. Insulfrax LTX offers the same benefits as previous Insulfrax blankets, now with physical properties enhanced to improve both thermal performance and handling. These lightweight needled blankets combine innovative proprietary technology with Insulfrax proven performance to create the best low-biopersistent Insulfrax blanket available from Alkegen today. Insulfrax LTX blankets are manufactured from alkaline earth silicate (AES) wool, and provide effective solutions to a variety of thermal management challenges.

The new Insulfrax LTX products can help customers reduce costs. The enhanced LTX fibre performance helps companies reduce their energy costs and meet increasingly strict carbon emission targets, without increasing the amount of insulation required. Alternatively, customers can save on material costs by using less insulation to achieve the same performance as standard AES blankets. Customers can save money by reducing their lining thickness up to 25%, freeing up valuable space in furnaces and ovens.

Insulfrax LTX Blankets are completely inorganic and binder free with an improved, smoother surface finish. Insulfrax LTX Blankets retain their strength, flexibility and thermal properties in many working environments without the generation of smoke or fumes. These new blankets are less dusty, which makes handling and cutting the material easier, resulting in faster installation of the product onsite and, in some cases, reduced waste of material. Insulfrax LTX Blankets are also printed on the surface of the blanket, which makes installation tracking and inspection on the job site or in the fabrication shop easier.

Available in a range of density and thickness combinations, Insulfrax LTX Blankets can be used in a wide variety of applications and are especially suited for use as high-temperature gaskets, wraps and heat shields.

General Characteristics

Insulfrax LTX Blanket products have the following outstanding characteristics:

- Exceptional insulating properties
- High temperature stability (up to 1200°C)
- Resistance to thermal shock
- High tensile strength & resiliency
- Lightweight
- Excellent flexibility
- Good acoustic properties



Typical Applications

Insulfrax LTX Blankets are the next generation of low biopersistent Insulfrax fiber and the product of choice for a wide range of applications in a number of industries including:

Appliances

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

Hearth Products

- Chimney Insulation

Primary Metals

- Expansion joint seals
- Aluminium transfer ladle covers
- Backup insulation for dense refractory linings
- Backup insulation for Fiberfrax® or Isofrax® linings
- Maintenance blanket
- Heat shields

Metals Processing

- Stress relieving blankets
- Seals and gaskets

Petrochemical/Power

- Reusable insulating pads
- External boiler and duct insulation

Ceramic and Glass

- Glass tank crown insulation
- Expansion joints
- Carbon baking furnace covers

Passive fire protection

Exhaust Insulation and Heat Shields

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Typical Product Parameters

	Insulfrax LTX Blanket			
Typical Chemical Analysis (wt. %)				
SiO ₂	61.0 – 67.0			
CaO	27.0 – 33.0			
MgO	2.5 – 6.5			
Al ₂ O ₃	<1.0			
Fe ₂ O ₃	<0.6			
Physical Properties				
Colour	White			
Classification Temperature (°C)*	1200			
Continuous Use Temperature (°C)**	1100			
Melting Point (°C)	>1330			
Mean Fibre Diameter (microns)	4.0			
Permanent Linear Shrinkage (%) 24 hour soak EN 1094-1				
1200°C	1.0			
Density (kg/m ³)	64	96	128	160
Thermal Conductivity (W/mK) – ASTM C201				
Mean Temp.				
200°C	0.06	0.06	0.05	0.05
400°C	0.11	0.09	0.08	0.08
600°C	0.17	0.14	0.12	0.11
800°C	0.26	0.20	0.18	0.15
1000°C	0.38	0.29	0.25	0.21
Tensile Strength (kPa)				
	45	65	85	100

*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 shown is based on 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

Thickness (mm)	Density (kg/m ³)				Roll Length (m)
	64	96	128	160	
6		*	✓		22.00
10		*	*		18.30
13		✓	✓	*	14.64
19	*	✓	✓	*	10.00
25	✓	✓	✓	✓	7.32
38	*	✓	✓	*	5.00
50	✓	✓	✓	✓	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 (e.g. 80 kg/m³) 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.

For additional information about product performance or to identify the recommended product for your application.

Insulfrax 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 biopersistent (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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