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## DESCRIPTION

AES (Alkaline Earth Silicate) Wool Bonded Modules are prefabricated blocks, manufactured from either Insulfrax or Isofrax blanket. They are specifically designed to improve the thermal insulation of existing industrial furnaces. AES Wool Bonded Modules can be cemented to the hot face of traditional refractory linings (L.O.R. method), or to the hot face of existing fibrous module linings (F.O.F. method). Alternatively, bonded modules can be used to provide a complete lining by cementing to an expanded metal frame. Available in a wide range of grade and thickness combinations, the AES Wool Bonded Module range offers effective solutions to thermal management problems in many industry sectors.

## GENERAL CHARACTERISTICS

AES Wool Bonded Modules have the following outstanding characteristics:

- High temperature stability
- Low thermal conductivity & heat storage
- Resistance to thermal shock & chemical attack
- Lightweight
- Fast installation
- Energy savings

## TYPICAL APPLICATIONS

### Petrochemical

- Furnaces & Fired heaters

### Metallurgy

- Heat treatment & Forge furnaces

### Power Generation

- Tunnel kilns & Intermittent kilns

Any new and/or special use of these products, whether or not in an application listed in our literature, must be submitted to our technical department for their prior written approval.

## TYPICAL PRODUCT PARAMETERS

Bonded Modules	Insulfrax	Isofrax
<b>Typical Chemical Analysis (fibre wt. %)</b>		
SiO <sub>2</sub>	61.0 - 67.0	70.0 - 80.0
CaO	27.0 - 33.0	
MgO	2.5 - 6.5	>18.0 - 27.0
Al <sub>2</sub> O <sub>3</sub>	<1.0	
Fe <sub>2</sub> O <sub>3</sub>	<0.6	
Trace		<4.0
<b>Physical Properties</b>		
Colour	White	White
Product Density (kg/m <sup>3</sup> )	170	190
Use Limit (°C)*	1050	1200
Melting Point (°C)		>1500
<b>Thermal Conductivity (W/mK)</b>		
<b>Mean Temp.</b>		
400 °C	0.11	0.10
600 °C	0.15	0.14
800 °C	0.18	0.18
1000 °C	0.25	0.23
1200 °C		0.29

\*The maximum continuous use limit temperature for these products depends upon operating and application conditions. For certain applications operational temperature limits may be significantly reduced. For assistance or clarification please contact your nearest Unifrax Engineering office. Where appropriate Physical Properties are measured according to EN 1094-1. Thermal Conductivity figures are empirical values based on experience.

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## AVAILABILITY

Module Dimensions (mm)			Insulfrax	Isofrax	Packaging
Length	Width	Thickness			Per Box
300	300	38	✓	✓	13
		50	✓	✓	10
		75	✓	✓	6
		100	✓	✓	5

Other densities and thicknesses may be available on request subject to minimum order requirements.

## HANDLING INFORMATION

A Material Safety Data Sheet 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.

Supplied by: