

ISOFOAM INSULATION

Isofoam Insulation is a monolithic insulation system. It is a three-component system of specially conditioned bulk alkaline earth silicate wool, binder and a foaming agent. The Isofoam installation process combines the bulk fibre with the binders in a patented mixing mechanism. Within the mixing chamber, the fibres and binders are combined to create a homogeneous foam/fibre mixture.

The Isofoam installation machinery propels the mixture through a feed hose and nozzle, the material is gunned onto the target surface and the interlocking network of fibres provides a strong, uniform monolithic structure. The proprietary Isofoam binder system and patented installation method completely encapsulate the fibres with the foaming binder, significantly reducing airborne fibre levels during installation.

General Characteristics

Isofoam Insulation has the following outstanding characteristics:

- Low thermal conductivity & heat storage
- Resistance to thermal shock & chemical attack
- Speed and ease of installation
- Low rebound during installation

Typical Applications

- Furnace linings (reformers, boilers, kilns, heat treatment)
- Lining flues, ducts and stacks
- Furnace refractory upgrades
- Low mass kiln car insulation
- Boiler tube wall insulation

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.

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.

Typical Product Parameters

Typical Chemical Analysis (fibre wt. %)

SiO ₂	70,0 – 80,0
MgO	> 18,0 – 27,0
Trace	< 4,0



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Physical properties

Colour	White
Melting Point	> 1500
Use limit	1260°C
Wet Density	256 kg/m ³
Dry Density	128 kg/m ³
Moisture at installation	50%
Loss on ignition (wt. %)	< 1,0

Permanent Linear Shrinkage (%) 24 hour soak

1260°C	< 4,0
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*The maximum continuous limit temperature for these products depends upon application conditions. For certain applications operational temperature limits may be significantly reduced. For assistance or clarification please contact us. Where appropriate Physical Properties data measured according to EN 1094-1.

Thermal Conductivity Data (W/mK)

Mean Temp. (°C)	
400	0,11
600	0,20
800	0,32
1000	0,48

Thermal Conductivity figures are empirical values based on experience.

Installation

Isofoam Insulation is used to insulate metal or refractory (L.O.R. method) at temperatures up to 1260°C. It can be installed at rates up to 2.5 m³/hour and is used in a wide range of furnace lining and other insulating applications. Using stainless steel anchors, Isofoam Insulation is a rapid installation alternative for certain full-thickness lining applications.

Isofoam Insulation can be easily installed at the job site by trained contractors using the special Isofoam installation machinery. For details of recommended installers and/or to discuss suitability to your particular requirements please contact us.