



Siltherm Panel

Rigid Microporous Insulation



1000°C

Siltherm Panel is manufactured in a glass cloth outer envelope, making it clean and easy to handle and manipulate, offering superior insulation properties combined with very good handleability.

The microporous insulation core of Siltherm Panel is an opacified blend of pyrogenic silica with a filament reinforcement. The unparalleled thermal resistance provided by Siltherm microporous insulation products makes them a realistic alternative and best cost competitive choice on the market to other lightweight insulation solutions, such as millboards, low density calcium silicate, vermiculite, temperature resistant fibres or wool based blankets and boards, whilst also delivering benefits in terms of space optimisation and reduced weight.



1000x600
mm



5-50
mm

Features and Benefits

Microporous insulation offers considerable and measurable advantages in terms of thermal management, energy efficiency and reduction of carbon footprint; the integration of microporous insulation in your heat containment systems and equipment provides a set of unique and measurable assets which impact at environmental, operational, social, economic and strategic levels like no other insulation can.

Features

- Extremely low thermal conductivity over a wide temperature range and up to its classification temperature.
- High thermal stability over time, no ageing effect.
- Low shrinkage.
- Thermal shock resistant.
- Inorganic and non-combustible.
- Wide range of sizes available to order.
- Alternative grades available to suit the application.
- Simple and clean to handle, cut, and shape.
- No harmful respirable fibres.
- Environmentally friendly.
- Resistant to most chemicals.
- Available in hydrophobic grade.

Benefits

- Allows more freedom in engineering at the design stage.
- Increases capacity of existing equipment or reduces external space and weight.
- Reduces carbon footprint and energy consumption.
- Conserves and stores energy, improving efficiency.
- Improves productivity and, in metallurgy and glass production specifically, also the quality of the finished product.
- Contributes to a safer working environment.
- Large product range sizes available.
- Alternative grades to suit the application.
- No thermal shift effect.

Typical Applications

As backup insulation in:

- **Metallurgy:** forging furnaces; reheating furnaces; soaking pit covers; tundish.
- **Oil and Gas:** crackers; distillation units; reformers.
- **Ceramic:** all types of kilns (roller, tunnel, shuttle); kiln cars.
- **Aluminium:** holding/melting furnaces; launders; remelters; metal transfer systems.
- **Glass:** melting furnaces; regenerators; refiners; forehearths.
- **Appliances:** night storage heaters.
- **Data Loggers:** used to protect and control temperature inside the device, data logger, monitor, portable measurement instruments, temperature recorders.





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Technical Specification

CHARACTERISTICS	TEST METHOD	UNITS	GRADE 1000
Classification Temperature		°C	1000
Nominal Density		kg/m ³	280
Cold Compressive Strength			
10% deformation	ASTM C165	MPa	0.67
Thermal Conductivity ¹			
mean temperature of	ASTM C177	W/m•K	200°C
			400°C
			600°C
			800°C
Specific Heat Capacity			
		kJ/kg•K	200°C
			400°C
			600°C
			800°C
Linear Shrinkage ¹			
24 hr full soak	ASTM C356	%	≤2.5
Typical Chemical Composition			
SiO ₂			55-80
SiC		%	15-30
Others			5-15
Loss on Ignition, dry conditions			<2.0

¹ Pure core tested

Standard Dimensions, Tolerances and Coverings

CHARACTERISTICS	SIZES (mm)	ENCAPSULATION	TOLERANCES (mm)
Standard Sizes (Length x Width) ²	1000 x 600	E-Glass Cloth ³	±3
Maximum Sizes (Length x Width)	2700 x 700		
Standard Thicknesses ²	5-50		±1

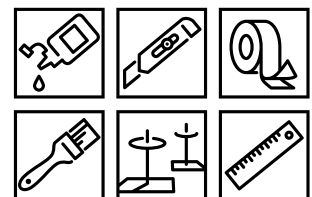
² Other sizes and thicknesses are available on demand

³ Other type of encapsulation cloths are available on demand (S2-Glass, Alumina, Quartz)

Cutting and Fixing

Siltherm Panel can be cut, shaped, drilled and punched with appropriate hand tools and automatic machinery and fixed as with other similar insulation materials using glue, retaining pins with clips or anchors. When cut, Siltherm Panel can be sealed with glass fiber tapes or aluminium self-adhesive tapes.

For environmental, health & safety information, please refer to our Material Safety Data Sheet.



ISO9001:2015
CERTIFIED

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