



Siltherm Board

Rigid Microporous Insulation

Siltherm Board is a rigid, high integrity microporous board offering superior insulation properties combined with good handleability.

Produced from an opacified blend of pyrogenic silica with a filament reinforcement, this board is available in a 1000 and 1100 grade, in a raw state (ie no encapsulation) or enhanced in a variety of coverings, such as glass fibre or aluminium encapsulation.

Features and Benefits

- Extremely low thermal conductivity over a wide temperature range
- High thermal stability
- Low shrinkage
- Low in weight
- Wide range of sizes available to order
- Alternative grades available to suit the application
- Inorganic and non-combustible
- Simple to handle, cut, and shape
- No harmful respirable fibres
- Environmentally friendly
- Resistant to most chemicals

Cutting and Fixing

Siltherm Board can be cut and shaped with conventional woodworking hand tools and machinery and fixed as with other similar insulation materials using glue, retaining pins or anchors.



Typical Applications

• **For use as back up insulation in:**

Steel forging furnaces, reheating furnaces, soaking pit covers

Oil and Gas (crackers, distillation units, reformers)

Aluminium pyrolysis cells, holding furnaces, remelters and launder metal transfer systems

All types of kilns (roller, tunnel, shuttle)

Kiln Cars

Glass melting furnaces, regenerators, refiners, forehearth

• **Fuel cells :**

In and around BOP and Stack in SOFC

• **Data Loggers**

Used to protect and control temperature inside the device, data logger, monitor, portable measurement instruments, temperature recorders



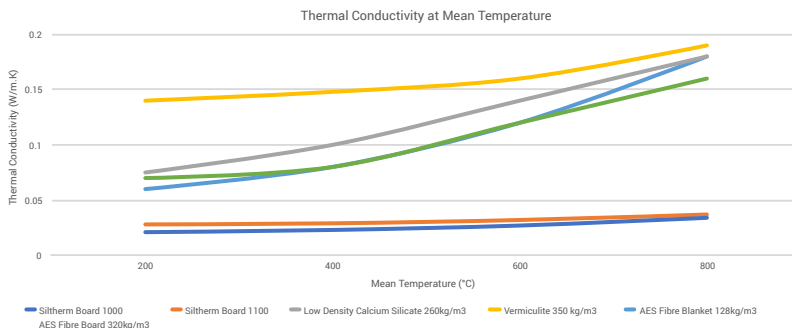
Technical Specification

Product Board				
Classification Temperature			°C	1000 1100
Nominal Density			kg/m ³	280 300
Thermal Conductivity*		200 °C	W/m.K	0.022 0.028
*Core tested according to ASTM C 177 : 2013		400 °C	W/m.K	0.023 0.029
		600 °C	W/m.K	0.027 0.032
		800 °C	W/m.K	0.034 0.037
Specific Heat Capacity		200 °C	kJ/kg.K	0.86 0.93
		400 °C	kJ/kg.K	0.94 0.96
		600 °C	kJ/kg.K	0.96 1.02
		800 °C	kJ/kg.K	0.99 1.07
Linear Shrinkage	24h full soak @ 950 °C		%	≤2.5 ≤0.5
Linear Shrinkage	24h full soak @ 1050 °C		%	≤2.5

Standard Dimension and Format Availability*

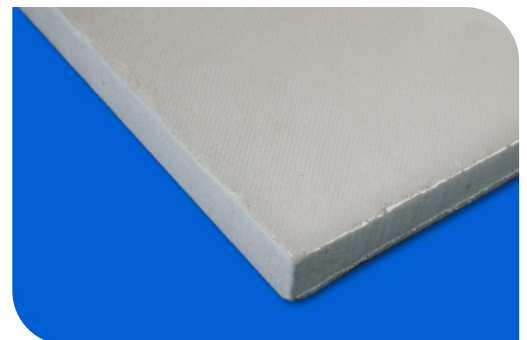
Product Board	Length x Width (mm)	Thickness (mm)
	1000 x 600	10-50
Available Coverings	Raw / PE / GF / ALU	
Tolerance (L*W) mm	+/- 3	
Thickness Tolerance (T) mm	±1	

* Other sizes available upon request



Siltherm products offer a realistic alternative to other lightweight insulations

Siltherm products offer a **realistic alternative** compared to other lightweight insulation solutions, such as low density calcium silicate, vermiculite, fibre or wool based blankets and boards. The thermal resistance provided by Siltherm products is a **cost competitive alternative** to the other lightweight insulation solutions on the market, whilst also delivering benefits in terms of space optimisation and reduced weight.



The values given in this datasheet are typical and subject to normal manufacturing variation, they are for guidance only and maybe subject to change without notice. Recommendations for use are not intended to, and do not constitute a warranty, express or implied, of the suitability of the product for a particular use. The user is responsible for determining the suitability of Siltherm products for each application.



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Siltherm Group Holdings Ltd maintains a Quality Management System to: **ISO 9001: 2015 Certificate Registration Number CN-00219Q20582R1S**
IQNet Certificate Issued by CQM for scope 'Research and development, production and after-sales service of nano thermal insulation materials'