



Siltherm Panel

Rigid Microporous Insulation

Siltherm Panel is a large sized rigid microporous insulation panel.

This panel product is manufactured in a glass cloth outer envelope, making it clean and easy to handle and manipulate. The microporous insulation core is an opacified blend of pyrogenic silica with a filament reinforcement.

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
- Inorganic and non-combustible
- Shock and vibration resistant
- Simple to handle, cut, and shape
- No harmful respirable fibres
- Environmentally friendly
- Resistant to most chemicals

Cutting and Fixing

Siltherm Panel can be easily cut with a sharp knife and fixed in a variety of ways similar most conventional insulations with glue, retaining pins or anchors, straps or wire.

Typical Applications

- **For use as back up insulation in:**
 - Steel forging furnaces, reheating furnaces, soaking pit covers, ladles, tundish
 - Oil and Gas (crackers, distillation units, reformers)
 - Aluminium holding furnaces, re-melters, launder metal transfer systems
 - All types of kilns (roller, tunnel, shuttle)
 - Kiln Cars
 - Glass melting furnaces, regenerators, refiners, forehearths
- **Night Storage Heaters**
 - Used to conserve stored energy, improving efficiency
- **Data Loggers**
 - Used to protect and control temperature inside the device, data logger, monitor, portable measurement instruments, temperature recorders



Technical Specification

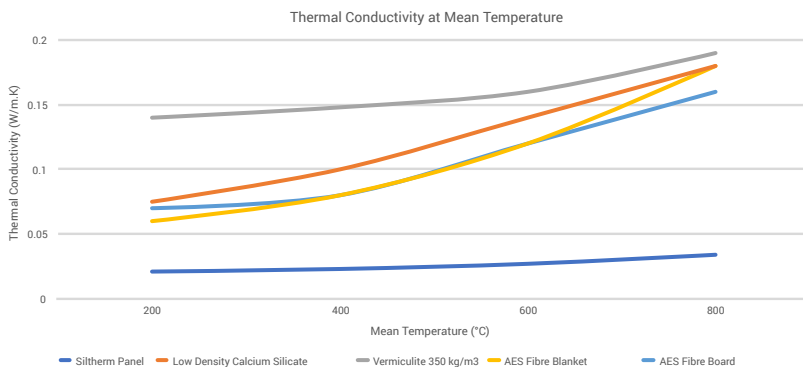
Product Panel			
Classification Temperature		°C	1000
Nominal Density		kg/m ³	280
Compressive Strength @ 10% deformation		MPa	0.20
Thermal Conductivity*	200 °C	W/m.K	0.022
*Core tested according to ASTM C 177 : 2013	400 °C	W/m.K	0.023
	600 °C	W/m.K	0.027
	800 °C	W/m.K	0.034
Specific Heat Capacity	200 °C	kJ/kg.K	0.93
	400 °C	kJ/kg.K	1.03
	600 °C	kJ/kg.K	1.06
	800 °C	kJ/kg.K	1.10
Linear Shrinkage	12h full soak @ 1000 °C	%	≤0.5
Linear Shrinkage	24h full soak @ 1000 °C	%	≤5

Siltherm Panel Product: 'Special coverings' and 'Hydrophobic grade' – available upon request

Standard Dimension and Format Availability*

Product Panel	Length x Width (mm)	Thickness (mm)
	1000 x 600	10-50
Available Coverings	Raw / PE / GF / ALU	
Length and Width Tolerance	+/- 3	
Thickness Tolerance		±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.



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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'

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.