



# Siltherm CS

## Microporous Insulation Customised Solutions



1000°C



5-50  
mm



**Siltherm CS (Customised Solution) is a customised microporous insulation, configured to specific geometries and functions to provide the required ready-to-install fit for purpose and performance characteristics.**

Siltherm CS products are manufactured in a glass cloth outer envelope, making the finished product clean and easy to handle and manipulate. The microporous insulation core is an opacified blend of pyrogenic silica with a filament reinforcement. A customised insulation solution can be supplied by integrating both rigid and flexible products together, and it is produced to conform to a very wide variety of shapes and configurations and complementing other Siltherm products as part of the requirement.

### Features and Benefits

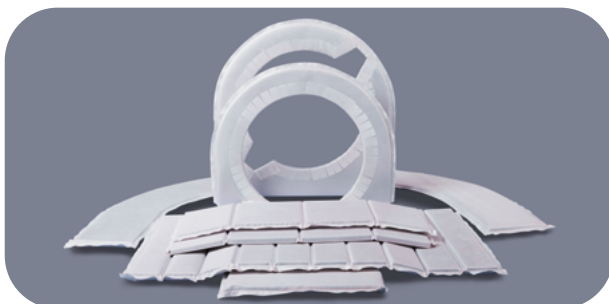
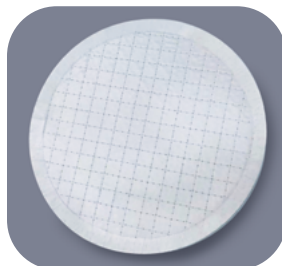
Microporous insulation offers considerable and measurable advantages in terms of thermal management, energy efficiency, reduction of carbon footprint and effective light and thin fire protection systems; the integration of microporous insulation in your equipment provides a set of unique and measurable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

#### Features

- High thermal stability over time, no ageing effect.
- Low in weight.
- Thermal shock resistant.
- Inorganic and non-combustible.
- Custom made sizes and shapes available to order.
- Tight tolerances.
- 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.
- Faster and clean installation.
- Increases capacity of existing equipment or reduces external space and weight.
- Reduces carbon footprint and energy consumption.
- Conserves and stores energy, improving efficiency.
- Contributes to improve productivity of the finished product.
- Contributes to a safer working environment.
- Alternative grades to suit the application.
- No thermal shift effect.



### Typical Applications

#### As backup insulation in:

- **Glass:** feeder bowls (cuvette) insulation systems.
- **Energy and Oil & Gas:** piping insulation, including elbows.
- **Data recorders.**
- **Ready to install insulation kits for any apparel with complex geometries.**
- **Appliances:** small hot equipment insulation.
- **Passive Fire Protection:** fire rated pipe couplings.



# Siltherm CS

## Technical Specification

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

<sup>1</sup> Pure core tested

### Standard Dimensions, Tolerances and Coverings

CHARACTERISTICS	SIZES (mm)	ENCAPSULATION	TOLERANCES (mm)
<b>Sizes (Length x Width)</b>	Customized	E-Glass Cloth <sup>2</sup>	±6
<b>Standard Thicknesses</b>	5-50		±1

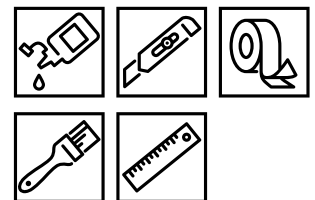
<sup>2</sup> Other type of encapsulation cloths are available on demand (S2-Glass, Alumina, Quartz)

### Cutting and Fixing

Siltherm CS is custom made and generally doesn't require cutting.

However it can be cut, shaped, drilled and punched with appropriate hand tools and automatic machinery including laser cut devices and fixed as with other similar insulation materials using glue, retaining pins with clips or anchors. When cut, Siltherm CS should 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

The values given in this datasheet are subject to normal manufacturing variation, they are provided for guidance only and may be 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. Siltherm shall not be responsible whether in contract or tort or otherwise howsoever for any consequential loss or damage caused by or arising out of your selection of the Siltherm products or for any consequential loss or damage caused by or arising from any recommendations of use of the Siltherm products in any way whatsoever by you or any other third party.

[silthermgroup.com](http://silthermgroup.com)

**SILTHERM Group Holdings Ltd** ... B-10, NO. 2842, East Xingang Road • Haizhu District • Guangzhou, P.R. China t. +86 (20) 3195 8289 info@siltherm.com  
**SILTHERM Europe Ltd** .... Paramount House, Corrig Road • Sandyford Business Park • Dublin, D18 R9C7, Ireland t. +353 (0) 1 255 1800 info@siltherm.eu  
**SILTHERM Japan Ltd** ..... Arca central 14F, 1-2-1 Kinshi • Sumida-ku • Tokyo, 130-0013 Japan t. +81 3 6853 6764 info@siltherm.jp