



# Siltherm Pipe

## Rigid Microporous Insulation



1000°C

**Siltherm Pipe is a rigid, high integrity microporous pipe section offering superior insulation properties combined with good handleability.**

Produced from an opacified blend of pyrogenic silica with a filament reinforcement, it is available in a 1000 grade and is enhanced in a variety of coverings, such as glass fibre fleece or cloth or aluminium encapsulation.

Siltherm Pipe is available in wide range of lengths, diameters and thicknesses; elbows and special curved segments can be also produced on demand. 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 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.



13x300  
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.
- Low in weight.
- Pedestrian resistance once installed around the pipe.
- Thermal shock and vibration resistant.
- Inorganic and non-combustible.
- Wide range of sizes available to order.
- Simple and clean to handle, cut, and shape.
- No harmful respirable fibres.
- Environmentally friendly.
- Resistant to most chemicals.

#### Benefits

- Allows more freedom in engineering at the design stage.
- Increases capacity of existing pipes or reduces external space and weight.
- Optimized space avoiding pipe racks congestion.
- Reduces carbon footprint and energy consumption.
- Conserves and stores energy, improving efficiency.
- Wide range of thicknesses and diameters available.
- Contributes to a safer working environment.
- Large product range sizes available.
- Clean and fast installation.
- Pedestrian resistant once installed.
- Elbows and curved segments available on demand.
- No thermal shift effect.

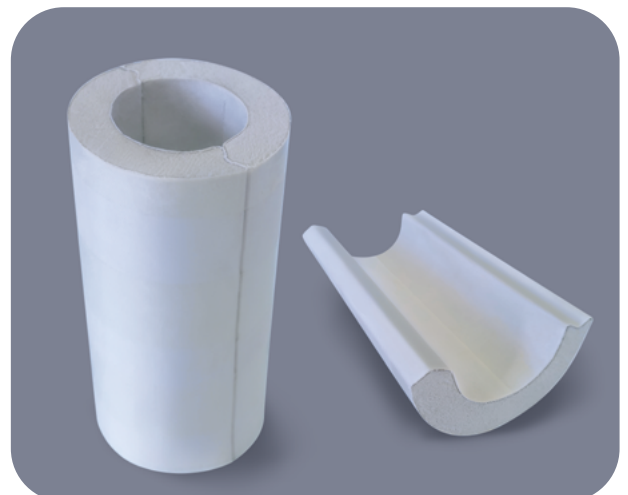


20-50  
mm

### Typical Applications

#### As backup insulation in:

- **Oil & Gas, Power Generation, Energy:** process and steam piping; tanks.
- **Renewable Energy:** stack insulation of domestic PEFC; pipe insulation in concentrated solar power plants (parabolic trough, central receivers ducts).
- **Fire Protection:** jet fire protection systems for steel pipes.





# Siltherm Pipe

## 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				
200°C	ASTM C177	W/m·K	0.022	
400°C			0.023	
600°C			0.027	
800°C			0.034	
<b>Specific Heat Capacity</b>				
		kJ/kg·K	0.86	
			0.94	
			0.96	
			0.99	
<b>Linear Shrinkage <sup>1</sup></b>				
24 hr full soak	1000°C	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

NOMINAL DIAMETER (mm)	LENGTH (mm)	THICKNESS (mm)
DN13, DN15, DN19, DN20, DN25, DN 32, DN40, DN50, DN65, DN80, DN90, DN100, DN113, DN125, DN150, DN175, DN200, DN250, DN300	500 mm	single layer: 20 to 50 mm double layer: 55 to 150 mm
<b>Tolerances</b>	± 3	± 1
<b>Available Coverings</b>	GF, ALU, E-Glass Cloth <sup>3</sup>	

<sup>3</sup> GF= Glass Fleece; ALU= Aluminium Foil

Customised sizes and elbows are available on demand

### Cutting and Fixing

Siltherm Pipe is available in different lengths and can be joined together, cut to length as required and fixed in the same way as with other similar insulation materials. 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) 1255 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