

## SILCAPOR 1000 P, 1000 P-X, 1000 SF, 1000 Q

**SILCAPOR 1000 P, SILCAPOR 1000 P-X, SILCAPOR 1000 SF** and **SILCAPOR 1000 Q** are microporous thermal insulation panels which are manufactured on the basis of fumed silica and typically covered with a glass fabric. If requested can the hydrophobisation of the microporous filling material be arranged. **SILCAPOR 1000 P** is a large-format rigid panel.

**SILCAPOR 1000 SF** consists of several slats which are connected to each other by the covering in such a way that a panel is created which can be folded in one direction. **SILCAPOR 1000 P-X** can be purchased as a rigid or unidirectional foldable panel that can be custom-made according to drawings of the customer. **SILCAPOR 1000 Q** is a quilted panel. Due to the small distance between parallel seams, the panel becomes flexible and can thus be optimally adapted to difficult geometries. If the rectangular stitching is chosen, the panel can also be adapted to more difficult geometries. In the event of contact with liquids, such as water, oil, petrol, etc., the microporous filling is irreversibly destroyed, and the thermal conductivity is therefore negatively affected. **SILCAPOR 1000 P, SILCAPOR 1000 P-X, SILCAPOR 1000 SF** and **SILCAPOR 1000 Q** are resistant to vapour diffusion and do not show any negative changes in their properties when exposed to vapours. The type of covering should be selected depending on the application temperature and the intended use. The classification temperature refers to the core material of **SILCAPOR 1000 P, SILCAPOR 1000 P-X, SILCAPOR 1000 SF** and **SILCAPOR 1000 Q**.

SILCAPOR		Unit	1000 P	1000 P-X	1000 SF	1000 Q
Classification temperature		°C	1,000			
Bulk density ± 10 %		kg/m <sup>3</sup>	280			220
Cold compression strength (ASTM C 165)		MPa	0.30			
Linear shrinkage after 24h, temperature loading from all sides (ASTM C 356)		1,000 °C %	≤ 2.5			
Thermal conductivity $\lambda$ at $t_m$ (ASTM C 177)	200 °C	W/(m·K)	0.022			0.023
	400 °C		0.023			0.026
	600 °C		0.027			0.032
	800 °C		0.034			0.039
Specific heat capacity	200 °C	kJ/(kg·K)	0.93			0.92
	400 °C		1.03			1.01
	600 °C		1.06			1.04
	800 °C		1.10			1.08
Chemical composition						
SiO <sub>2</sub>		%	60 - 80			55 - 80
SiC			15 - 25			15 - 30
Others			5 - 15			5 - 15
Ignition loss		%	< 2,0			< 2,0
Dimensions						
Length		mm	1,000 ± 3	On request ± 6	1,200 ± 3	1,500 ± 3
Width			600 ± 3	On request ± 6	600 ± 3	700 ± 3
Thickness			5 - 50 ± 1	5 - 50 ± 1	10 - 50 ± 1	3 / 5 / 6 / 8 / 10 / 12,5 ± 1
Quilting grid			-	-	-	25 x 25 / 50 x 50 / 100 x 100
Other dimensions are available on request.						

The properties mentioned are typical values obtained according to the listed methods. Product variations have to be taken into account. The data do not represent guaranteed properties and cannot be used for any warranty claim. Data are subject to technical modifications.

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