

# SILCAPAN®

Technical ceramics for mechanical engineering and fire protection

		SILCAPAN® 850	SILCAPAN® 845
<b>MECHANICAL PROPERTIES</b>			
<b>Bulk density (EN 1094-4)</b>			
(± 10%)		kg/m <sup>3</sup>	900
		lbs/cu.ft.	56
			930
			59
<b>Compressive strength (EN 1094-5)</b>			
		MPa	17
		lbs/sq.in.	2465
			26
			3770
<b>Flexural strength (EN 12089)</b>			
		MPa	8
		lbs/sq.in.	1160
			13
			1885
<b>Hardness (DIN 53505)</b>			
		Shore D	60
			64
<b>THERMAL PROPERTIES</b>			
<b>Service temperature</b>			
		°C	1000
		°F	1832
			1000
			1832
<b>Shrinkage after 12 h (EN 1094-6)</b>			
Length-width / thickness	@ 750°C (1382°F)	%	0,4/1,1
	@ 1000°C (1832°F)	%	0,6/2,0
			0,2/1,0
			0,4/2,5
<b>Thermal conductivity (EN 993-14)</b>			
mean temperature	@ 400°C	W/(mK)	0,24
	@ 600°C	W/(mK)	0,25
	@ 800°C	W/(mK)	0,28
	@ 752°F	BTU/(sq.ft.h°F/in)	1,66
	@ 1112°F	BTU/(sq.ft.h°F/in)	1,73
	@ 1472°F	BTU/(sq.ft.h°F/in)	1,94
			1,66
			1,73
			1,94
<b>Specific heat capacity</b>			
		kJ/(kgK)	0,8-1,2
		BTU/(lb°F)	0,19-0,29
			0,8-1,2
			0,19-0,29
<b>Coefficient of thermal expansion</b>			
	@ 900°C	K <sup>-1</sup>	5,7x10 <sup>-6</sup>
	@ 1652°F	°F <sup>-1</sup>	3,2x10 <sup>-6</sup>
			5,7x10 <sup>-6</sup>
			3,2x10 <sup>-6</sup>
<b>CHEMICAL PROPERTIES</b>			
<b>Chemical composition</b>			
	Calciumsilicate	%	90
	CaO-; MgO-; Al <sub>2</sub> O <sub>3</sub> -silicates	%	91
	R <sub>x</sub> O <sub>x</sub> (R=Fe, Ti, K, Na)	%	1
	Loss on ignition (LOI)	%	8
			9
<b>DIMENSIONS</b>			
<b>Standard sizes; both sides sanded, untrimmed</b>		<b>mm</b>	<b>inches</b>
Length		1500, 3000	59.1, 118.1
Width		1250	49,2
Thickness		12.7, 19.1, 25.4, 31.8, 38.1, 50.8 76.2, 101.6	½, ¾, 1¼, 1½, 2, 3, 4
<b>Dimensional tolerances</b>		<b>mm</b>	<b>inches</b>
Length		± 15	± 0.59
Width		0/+8	0/+0.31
Thickness		0/+0,8	0/+0.03

These values are tested in accordance with standards. They represent typical average values, but are subject to variations of raw materials and production variances. We are not liable for damages, connected with the use of our products. Misprints and errors excepted.

#### General remarks

Large sections should be supported by using adequate support systems. SILCAPAN® can be mechanically fixed using glue and/or screws. SILCAPAN® must be stored in dry environment. For additional information please contact CALSITHERM Silikatbaustoffe GmbH.

## CALSITHERM®

Silikatbaustoffe GmbH

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