

Dense calcium silicate boards

SILCAPAN 845, 850

SILCAPAN are technical ceramics on the basis of calcium silicate. **SILCAPAN 845** and **SILCAPAN 850** have bulk densities of 900 and 1,050 kg/m³, respectively and are usable up to temperatures of 1,000 °C.

SILCAPAN products are used in the mechanical engineering and apparatus construction sector as structural components when high temperature resistance as well as thermal and electrical insulation are required. These products are used, for example, as spacers, flanges, insulation housings for electronic components or for hot press insulation.

Machining

SILCAPAN can be precisely machined to close tolerances. With our 5-axis processing machines we can produce the most complicated geometries.

SPECIAL FEATURES

- good insulation
- high strength
- dimensionally stable
- self-supporting
- good machinability

SILCAPAN 845



SILCAPAN 850



SILCAPAN 845, 850

SILCAPAN		Method	Unit	845		850	
Upper application limit temperature		EN 1094-6	°C	1,000		1,000	
Bulk density ($\pm 10\%$)		EN 1602	kg/m ³	1,050		900	
Open porosity (in acc. with standard)		EN 993-1	%	60		68	
Compression strength		EN 826	MPa	26		17	
Flexural strength		EN 12089	MPa	13		8	
Hardness		DIN 53505	Shore D	60		55	
Shrinkage after 12 h		EN 1094-6	%				
Length and width	750 °C			0.2		0.05	
Thickness	750 °C			0.60		0.20	
Thermal conductivity λ at t_m		EN 12667	W/(m K)	200 °C		0.27	
				400 °C		0.28	
				600 °C		0.31	
				800 °C		0.35	
Specific thermal capacity			kJ/kg K	0.8 - 1.2		0.8 - 1.2	
Thermal conductivity		DIN 51045-5	K ⁻¹ x 10 ⁻⁶	RT-750 °C			
\perp perpendicular to board plane				\perp		\parallel	
\parallel parallel to board plane				4.3		5.3	
Chemical composition			%				
Calcium silicate				91		-	
(CaO-; MgO-; Al ₂ O ₃ -) silicate				-		94	
R _x O _x (R=Fe, Ti, K, Na)				1		1	
Annealing loss				8		5	
Dimensions							
Standard sizes		Tolerances					
Length		± 2 ; *0/+50	mm	1,000/1,500/3,000*			
Width		0/+20	mm	1,250			
Thickness		0/+0.8	mm	10/12/15/20/25/50/75			
Surfaces ground on both sides, without trimming.							
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.