

Fire protection boards

## SILCA® fire protection boards

170SB, 200, 250SB, T300, T500, SILCAPROTECT®

**SILCA® fire protection boards** are homogeneous insulation boards based on porous, lightweight calcium silicate. They are available in large sizes, are dimensionally stable and self-supporting.

**SILCA® fire protection boards** have obtained declarations of performance according to Annex III of the Construction Products' Regulations (EU) No. 305/2011 and bear the CE-marking.

**SILCA® fire protection boards** are physiologically safe and have been classified as environmentally compliant construction material by the Arbeitse Gemeinschaft Umweltverträgliches Bauprodukt e.V. The boards are disposed of as construction waste.

**SILCA® 200, SILCA® 170SB, SILCA® 250SB, SILCA® T300 and SILCA® T500** are fire protection boards approved for the use in shipbuilding. Furthermore, these boards have proven their effectiveness in a large variety of applications as fire protection doors, fire protection gates, safety cabinets and fire protection containers.

**SILCAPROTECT®** is a medium weight fire protection board based on calcium silica hydrate with additives from aluminium hydroxide and cellulose.

**SILCAPROTECT®** in combination with a precursor material of calcium silicate is pressed to highly pressure resistant boards and subsequently hydrothermally hardened.

Since **SILCAPROTECT®** has good edge stability, exactly machined parts can be prepared with simple woodworking machines. An uncoated board of 50 mm **SILCAPROTECT®** has a fire resistance according to UTTC of  $\geq 90$  minutes.

**SILCAPROTECT®** in combination with PU, PVAc or similar adhesives and highly compressed laminates, thin layer metal plates or metal foils will result in highly efficient fire protection constructions. Possible fire protection applications include ventilation ducts, gas flue shafts, fire dampers, wall ducts, doors, gates, walls, ceilings, IT safety cabinets and safes.

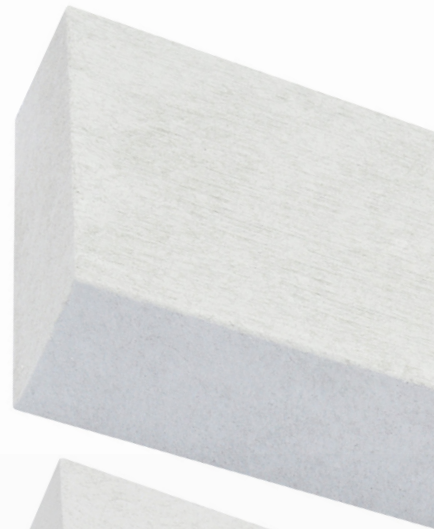
### Processing

The material can be processed with standard woodworking machines. For machining we recommend the use of a dust extraction system. On request we can deliver blanks finished to your specifications.

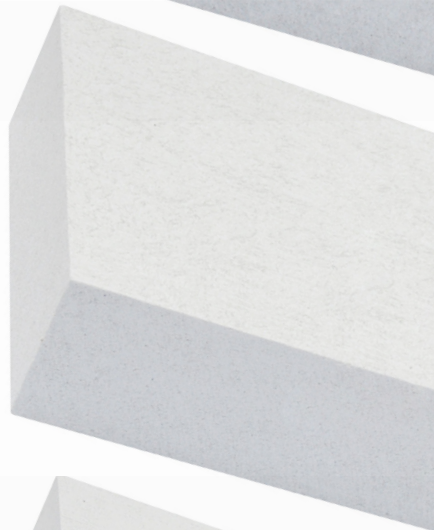
### SPECIAL FEATURES

- large-size up to 3.000 x 1.250 mm
- environmentally compliant construction material
- easy processing with screws, clamps or adhesive

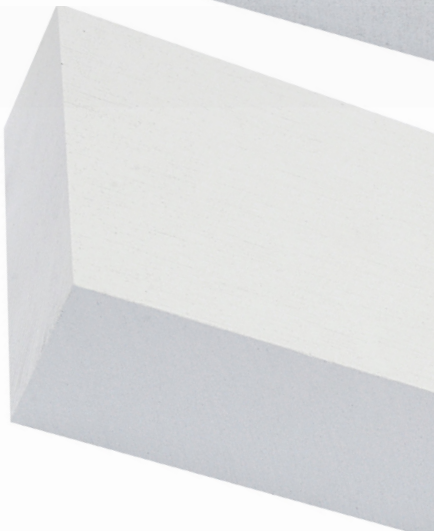
**SILCA®  
250SB**



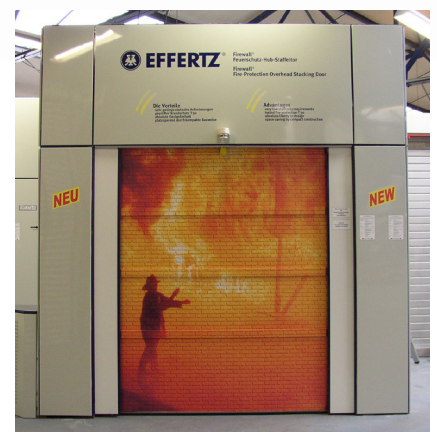
**SILCA®  
T300**



**SILCA®  
T500**



**Fire gate with SILCA®  
fire protection boards**



**SILCA® fire protection boards**

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SILCA® fire protection boards		Method	Unit	SILCA® 170SB	SILCA® 200	SILCA® 250SB	
Certificate			Shipbuilding				
Certificate office			BG Verkehr - Ship Safety Division				
European notified body			Identification number 0736				
Manufacturer (applicant)			Calsitherm Silikatbaustoffe GmbH				
Address			Hermann-Löns-Straße 170 D - 33104 Paderborn				
EC-Type Examination (Module B) Certificate							
Certificate No.			107.082	107.063	107.055		
As per Marine Equipment Directive (MED)			Directive 2014/90/EU, as last amended by Commission Implementing Regulation (EU) 2017/306				
Equipment (Number & Item designation)			MED/3.13 Non-combustible materials				
Specified standard			IMO Resolution MSC.307(88)-(FTP-Code 2010) Annex 1, Part 1				
Date of issue			13.03.2018				
Expiry date			12.03.2023				
Quality Assurance System Certificate (in conformity with Module D)							
Certificate No.			SEE18008				
As per Marine Equipment Directive (MED)			Directive 2014/90/EU				
Date of issue			08.03.2018				
Expiry date			16.01.2021				
CE-label according		EN 14306					
Inspection body			MPA NRW	MPA NRW	MPA NRW		
Test report number			420002242 10-1-1	420002242 10-1-2	420002242 10-2-4		
Bulk density ( $\pm 10\%$ )		EN 1094-4	kg/m <sup>3</sup>	180	210	250	
Reaction to fire		EN 13501	A1				
Porosity		EN 1094-4	%	93	93	90	
Compression strength		EN 826	MPa	1.6	1.8	1.8	
Flexural strength		EN 12089	MPa	0.4	0.4	0.5	
Thermal conductivity $\lambda$ at $t_m$		EN 12667	W/(m K)	200 °C	0.07	0.08	
				400 °C	0.10	0.10	
				500 °C	0.12	0.12	
				800 °C	0.25	0.18	
Dimensions							
Standard sizes		Length x width		mm			1,250 x 1,000 / 1,500 x 1,250 / 3,000 x 1,250
		Thickness		mm			25/30/40/50/60/65/70/75/80/90/100
Tolerances (unpolished)		Length		mm		0/+30; * $\pm 2$	500/1,000*/3,000
		Width		mm		0/+10	1,250
		Thickness		mm		$\leq 50 \pm 2$ ; $> 50 -3/+2$	
Other dimensions are available on request (maximal 3,000 x 1,250).							

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.

**SILCA® fire protection boards**

170SB, 200, 250SB, T300, T500, SILCAPROTECT®

SILCA® fire protection boards		Method	Unit	SILCA® T300	SILCA® T500	SILCAPROTECT®	
Certificate			Shipbuilding				
Certificate office			BG Verkehr - Ship Safety Division				
European notified body			Identification number 0736				
Manufacturer (applicant)			Calsitherm Silikatbaustoffe GmbH				
Address			Hermann-Löns-Straße 170 D - 33104 Paderborn				
EC-Type Examination (Module B) Certificate							
Certificate No.			107.048	107.094			
As per Marine Equipment Directive (MED)			Directive 2014/90/EU, as last amended by Commission Implementing Regulation (EU) 2017/306				
Equipment (Number & Item designation)			MED/3.13 Non-combustible materials				
Specified standard			IMO Resolution MSC.307(88)- (FTP-Code 2010) Annex 1, Part 1				
Date of issue			13.03.2018				
Expiry date			12.03.2023				
Quality Assurance System Certificate (in conformity with Module D)							
Certificate No.			SEE18008				
As per Marine Equipment Directive (MED)			Directive 2014/90/EU				
Date of issue			08.03.2018				
Expiry date			16.01.2021				
CE-label according		EN 14306					
Inspection body			MPA NRW	MPA NRW	MPA NRW		
Test report number			420002242 10-4-1	420002465 14-1-1	420002465 14-2-1a		
Bulk density ( $\pm 10\%$ )		EN 1094-4	kg/m <sup>3</sup>	340	500	600	
Reaction to fire		EN 13501	A1				
Porosity		EN 1094-4	%	87	85	85	
Compression strength		EN 826	MPa	2.8	5.0	5.0	
Flexural strength		EN 12089	MPa	1.2	2.0	2.0	
Thermal conductivity $\lambda$ at $t_m$		EN 12667	W/(m K)	200 °C	0.09	0.15	
				400 °C	0.10	0.18	
				500 °C	0.13	0.18	
				800 °C	0.19	0.32	
Dimensions							
Standard sizes		Length x width		mm			1,250 x 1,000 / 1,500 x 1,250 / 3,000 x 1,250
		Thickness		mm			25/30/40/50/60/65/70/75/80/90/100
Tolerances (unpolished)		Length		mm		0/+30; * $\pm 2$	500/1,000*/3,000
		Width		mm		0 / +10	1,250
		Thickness		mm		$\leq 50 \pm 2$ ; $> 50 -3/+2$	
Other dimensions are available on request (maximal 3,000 x 1,250).							

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.