

Blankets, papers and boards based on alkaline earth silicate wool

SILCAWOOL

120P, 130 blankets, 120, 120P, 130 paper, 110, 115, 130 boards

SILCAWOOL 120, 120P and **130** are alkaline earth silicate wool products based on calcium magnesium silicate. They have increased bio-solubility and in this way represent an alternative to the previously known aluminium silicate wool. Thanks to their high bio-solubility the products do not require to be labelled as hazardous material.

SILCAWOOL has excellent thermal stability in normal oxidizing atmospheres. However, by reason of its increased bio-solubility, the product is subject to chemical attack, in particular in moist atmospheres in combination with acids / alkalis.

SILCAWOOL 120 fibres can also be supplied as loose fibres and possess lubricants which outgas when heated. Paper produced from **SILCAWOOL 120** fibres contains binders which escape when heated.

SILCAWOOL 120P and **130** blankets are needled on both sides and possess high tensile strength. These blankets contain no lubricants or binders which could be emitted on being heated.

SILCAWOOL 120P and **130** fibres are converted to boards and paper. These products contain binders which are released when the product is heated.

SILCAWOOL 120P or **130** blankets can also be used for the **SILCABLOCK**, **SILCASTACK**, **SILCAFIX** and **SILCAPACK** lightweight construction systems. However attention should be paid to the fact that technical parameters arise with the use of these alkaline earth silicate wool other than those listed in the data sheets for the use of aluminium silicate wool.



SPECIAL FEATURES

- resistant to high temperatures, low shrinkage
- excellent resistance to thermal shock
- good thermal insulation properties
- lightweight, flexible and easy to process
- low accumulation of heat
- high bio-solubility
- high tensile strength

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SILCAWOOL blankets		Unit	120P-96	120P-128	120P-160	130-10	130-13	
Classification temperature		°C	1,200			1,300		
Bulk density		kg/m ³	96	128	160	96	128	
Shrinkage after 24 h		°C	1,200			1,300		
EN 1094-1		%	≤ 1.0			≤ 4.0		
Thermal conductivity λ at t_m	200 °C	W/(m K)	0.05	0.05	0.04	0.05	0.04	
	400 °C		0.09	0.08	0.07	0.10	0.08	
	600 °C		0.14	0.12	0.11	0.19	0.14	
	800 °C		0.21	0.18	0.16	0.32	0.23	
	1,000 °C		0.29	0.25	0.23	0.48	0.34	
	1,200 °C		-	-	-	0.69	0.48	
ASTM C-201								
Chemical reference analysis								
	SiO ₂	%	62 – 68			70 – 80		
	CaO+MgO		29 – 39			18 – 25		
	other		< 1			< 3		
Dimensions		Content	X = available					
6 x 610 x 5,500 (4x)	mm	13.42	m ²	-	X	-	-	X
13 x 610 x 14,640	mm	8.93	m ²	X	X	X	X	X
19 x 610 x 9,760	mm	5.95	m ²	X	X	X	-	-
25 x 610 x 7,320	mm	4.46	m ²	X	X	X	X	X
38 x 610 x 4,880	mm	2.98	m ²	X	X	-	-	X
50 x 610 x 3,660	mm	2.23	m ²	X	X	-	-	X
Roll width 1,220 mm on special request, available in a quantity-dependent manner.								
Loose wool in 20 kg bags.								

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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SILCAWOOL		Unit	Papers			Boards			
Quality			120	120P	130	110-35A	110-32A	115-36A	130-35A
Classification temperature		°C	1,200	1,200	1,300	1,100	1,100	1,150	1,300
Bulk density (mean value)		kg/m ³	ca. 150	190 - 210	210	350	320	360	350
Shrinkage after 24 h		°C	1,200	1,000	1,300	1,100	1,100	1,150	1,300
ASTM C-201		%	<4.0	<2	<2	<1.0	<1.2	<1.3	<1.5
Compression strength (at 10 % compressive strain)		MPa	-	-	-	0.3	0.3	0.3	0.3
Flexural strength		MPa	-	-	-	1.5	0.8	1.2	1.4
Thermal conductivity λ at t_m	200 °C	W/(m K)	0.05	0.05	0.04	-	0.05	0.06	0.05
	400 °C		0.08	0.07	0.07	0.09	0.07	0.09	0.08
	600 °C		0.11	0.11	0.10	0.12	0.09	0.12	0.11
	800 °C		0.15	0.16	0.14	0.15	0.12	0.15	0.15
	1,000 °C		0.20	0.23	0.19	-	0.16	-	0.20
ASTM C-201	1,200 °C		-	-	0.25	-	-	-	0.26
Chemical reference analysis	SiO ₂	%	61-67*	62 - 68*	70 - 80*	67	59	73	78
	CaO+MgO		30-40*	29 - 39*	18 - 25*	27	28	17	20
	other		< 2*	< 1*	< 3*	< 6	< 13	< 10	< 2
* Chemical composition of the fibres									
Dimensions SILCAWOOL papers									
Length x width			Thickness						
40,000 x 500/1,000**		mm	1	1	1				
20,000 x 500/1,000**		mm	2	2	2				
15,000 x 500		mm	-	3	3				
10,000 x 500/1,000**		mm	3/4/5/6	4/5/6/8/10	4/5/6/8/10				
** SILCAWOOL 120									
610 or 1,000 width on demand									
Dimensions SILCAWOOL boards									
Length x width			Thickness						
1,200 x 1,000		mm				6/7,5		10/13	25
						10/13		20/25	40
						15		40/50	50
1,000 x 600		mm					25/30		
							40/50		

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