

Blankets and papers based on aluminium silicate and polycrystalline wool

## SILCAFLEX

126-10, 126-13, 126-16, 140-13, 143-13, 143-16, 160-10H, 160-13H, 140D, 160D

**SILCAFLEX** products are based on long-fibre aluminium silicate and polycrystalline wool for the highest demands. The fibres can be processed into various products, such as blankets, cords, paper, etc.

**SILCAFLEX** blankets are offered with a range of classification temperatures. They are flexible, especially low in shot content or, as the case may be, have zero shot content (**SILCAFLEX 160**) and are needled on both sides. They are characterized by high tear strength, low thermal conductivity and very high resilience.

**SILCAFLEX products** have excellent resistance to temperature changes and are resistant to most chemicals. Exceptions are represented by hydrofluoric acid, phosphoric acid and alkaline compounds. With severe thermal loading we recommend our mullite fibre **SILCAFLEX 160** with increased  $Al_2O_3$  content.

**SILCAFLEX paper** is produced from aluminium silicate or polycrystalline wool and contains additional organic binders. This product is used in particular for thin thermal insulation applications (up to 3 mm).

Further forms of delivery such as **SILCAFLEX loose wool** are available on request.

**Note:**

**Our EC safety data sheet will inform you about the protective measures to be taken when handling and using aluminium silicate wool as well as the health risks.**



### SPECIAL FEATURES

- resistant to high temperatures
- outstanding resistance to temperature changes
- low accumulation of heat
- high flexibility
- good tear strength
- good thermal insulation properties
- high chemical resistance



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SILCAFLEX blankets		Unit	126-10	126-13	126-16	140-13	143-13	143-16	160-10H	160-13H	
Classification temperature		°C	1,260			1,400	1,430		1,600		
Bulk density		kg/m <sup>3</sup>	96	128	160	128	128	160	96	128	
Shrinkage after 24 h		°C	1,100			1,300	1,300		1,500	1,500	
		%	2.2			3.0	2.0		0.7	1.2	
Thermal conductivity $\lambda$ at $t_m$	200 °C	W/(m K)	0.06	0.05	-	-	0.05	-	-	-	
	400 °C		0.09	0.08	0.08	0.11	0.08	0.09	-	-	
	600 °C		0.16	0.13	0.13	0.15	0.14	0.13	0.095	0.068	
	800 °C		0.25	0.19	0.18	0.21	0.19	0.18	0.14	0.10	
	1,000 °C		0.36	0.27	0.25	0.31	0.27	0.25	-	-	
	1,200 °C		-	-	-	0.44	0.36	-	0.30	0.23	
	1,400 °C		-	-	-	0.64	-	-	-	-	
Chemical reference analysis	Al <sub>2</sub> O <sub>3</sub>	%	42 - 48			54	33 - 37		72		
	SiO <sub>2</sub>		52 - 58			46	48 - 52		28		
	ZrO <sub>2</sub>		-			-	13 - 17		-		
Dimensions		Content		X = available; loose wool in 20 kg bags							
3 x 610 x 20,000	mm	12.20	m <sup>2</sup>	-	-	-	-	-	-	X	X
6 x 610 x 21,960	mm	13.34	m <sup>2</sup>	-	X	-	X	-	-	-	-
12.5 x 610 x 10,000	mm	6,10	m <sup>2</sup>	-	-	-	-	-	-	X	X
13 x 610 x 14,640	mm	8.93	m <sup>2</sup>	X	X	X	-	X	X	-	-
19 x 610 x 9,760	mm	5.59	m <sup>2</sup>	-	X	-	-	X	-	-	-
25 x 610 x 7,200	mm	4.39	m <sup>2</sup>	-	-	-	-	-	-	X	X
25 x 610 x 7,320	mm	4.46	m <sup>2</sup>	X	X	X	-	X	X	-	-
38 x 610 x 4,880	mm	2.98	m <sup>2</sup>	X	X	-	-	X	X	-	-
50 x 610 x 3,660	mm	2.23	m <sup>2</sup>	X	X	X	-	X	X	-	-
SILCAFLEX paper		Unit	$t_m$	140D	$t_m$	160D					
Classification temperature		°C		1,400		1,600					
Bulk density		kg/m <sup>3</sup>		200		125					
Shrinkage after 24 h		°C		1,260		-					
		%		3.0		-					
Thermal conductivity $\lambda$ at $t_m$		W/(m K)	400 °C	0.09	500 °C	0.09					
			600 °C	0.13	800 °C	0.11					
			800 °C	0.20	1,200 °C	0.17					
			1,000 °C	0.29	1,400 °C	0.26					
			1,200 °C	0.44	1,600 °C	0.32					
Chemical reference analysis	Al <sub>2</sub> O <sub>3</sub>	%		33 - 37		88					
	SiO <sub>2</sub>			48 - 52		9					
	ZrO <sub>2</sub>			13 - 17		-					
	Andere			trace		3					
Dimensions											
Standard sizes	Length	mm		20,000	10,000		10,000	20,000			
	Width	mm		500	500		500	500			
	Thickness	mm		1	2/3		1/3	2			

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.