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/m³	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 λ 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_2O_3	%	42 – 48			54	33 – 37		72	
	SiO_2		52 – 58			46	48 – 52		28	
	ZrO_2		-			-	13 – 17		-	
Dimensions		Content	X = available; loose wool in 20 kg bags							
6 x 610 x 21,960	mm	13.34	m²	-	X	-	X	-	-	-	-
12.5 x 610 x 10,000	mm	6,10	m²	-	-	-	-	-	-	X	X
13 x 610 x 14,640	mm	8.93	m²	X	X	X	-	X	X	-	-
13 x 610 x 7,200	mm	4.39	m²	-	-	-	-	-	-	-	-
19 x 610 x 9,760	mm	5.59	m²	-	X	-	-	X	-	-	-
25 x 610 x 7,200	mm	4.39	m²	-	-	-	-	-	-	X	X
25 x 610 x 7,320	mm	4.46	m²	X	X	X	-	X	X	-	-
38 x 610 x 4,880	mm	2.98	m²	X	X	-	-	X	X	-	-
50 x 610 x 3,660	mm	2.23	m²	X	X	X	-	X	X	-	-

SILCAFLEX paper		Unit	t_m	140D	t_m	160D	
Classification temperature		°C		1,400		1,600	
Bulk density		kg/m³		200		125	
Shrinkage after 24 h		°C		1,260		-	
		%		3.0			
Thermal conductivity λ 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_2O_3	%		33 - 37		88	
	SiO_2			48 - 52		9	
	ZrO_2			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

silca
refractory solutions

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