VitroSilK®Cover

Made-to-measure insulation blankets of VitroSilK®Shield and VitroSilK®Flex or VitroSilK®Loft

Interim version, nominal values of the specification. The absence of alkali and alkaline earth oxides (Na_2O, K_2O, CaO, MgO, BaO) in the VitroSilK® fiber is confirmed for every delivery by an exclusion certificate "basic oxides".

Description

VitroSilK®Cover are insulation blankets made to drawing or site measurement. The hot side and cold side consist of the wire-reinforced fabric VitroSilK®Shield, the insulation layer of VitroSilK®Flex in 12.7 or 20 mm, in one or several layers. The layers are sewn and quilted with a Twaron® (para-aramid) sewing thread twisted with twelve stainless steel wire cores of 1.4845 (X8CrNi25-21). The blanket is fastened with wire-quilted stainless steel hooks of 1.4571 (X6CrNiMoTi17-12-2). On request, a knitted wire mesh of 1.4571 is firmly sewn and quilted onto the hot side.

As a box design with webs of VitroSilK®Shield, the blanket receives a loose fill of VitroSilK®Loft instead of the Flex layer, with a packing density of 120 to 140 kg/m³ and an insulation thickness of 30 to 100 mm.

All insulation and fabric layers consist of VitroSilK®. They contain no basic oxides and therefore make no contribution to the thermochemical formation of calcium or sodium chromate on chromium-alloyed hot parts.

The temperature resistance of the VitroSilK® fiber is approximately 1000 °C. For continuous service we recommend an application temperature of up to 750 °C on the hot side. This is intended to prevent the formation of cristobalite, which has so far been neither demonstrated nor investigated for VitroSilK®, but which cannot be ruled out under prolonged exposure to higher temperatures.

Construction and data

Property	Blanket with Flex layer	Box design with Loft fill
Layers		
Hot side	VitroSilK®Shield, optionally with knitted wire mesh of 1.4571	
Insulation layer	VitroSilK®Flex 12.7 or 20 mm, one or several layers	VitroSilK®Loft, loose, packing density 120 – 140 kg/m³
Insulation thickness	according to number and thickness of layers	30 – 100 mm
Construction	quilted	box design with webs of VitroSilK®Shield
Cold side	VitroSilK®Shield	
Fabrication		
Sewing thread	Twaron® (para-aramid), twisted with twelve stainless steel wire cores 1.4845 (X8CrNi25-21); sewn and quilted	
Fastening	stainless steel hooks 1.4571 (X6CrNiMoTi17-12-2), wire-quilted	

Option hot side	knitted wire mesh 1.4571, firmly sewn and quilted
Dimensions	to drawing or site measurement
VitroSilK® fiber	
Fiber type	amorphous continuous silicate glass fiber, not fused quartz, not quartz, nominal fiber diameter 6 – 9 µm
SiO_2 / Al_2O_3	95.0 ± 1.0 % / 3.5 ± 0.5 %
Alkali and alkaline earth oxides	not contained, exclusion certificate “basic oxides” for every delivery
Temperatures	
Temperature resistance of VitroSilK® fiber	approx. 1000 °C | 1832 °F
Recommended application temperature on the hot side, continuous service	up to 750 °C | 1382 °F

For the properties of the individual layers see the technical data sheets VitroSilK®Shield, VitroSilK®Flex and VitroSilK®Loft.

Revision history

Version	Date	Change
1.0	November 2026	First edition as interim version.