

Data sheet

Superwool® XTRA Blanket

ENGLISH

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Description

Superwool® XTRA Blanket is made of Superwool® XTRA long fibres.

It exhibits outstanding insulating properties at elevated temperatures. Superwool® XTRA Blanket has an excellent thermal stability and retains its original soft fibrous structure up to maximum continuous use temperature.

Blanket contains neither binder nor lubricant and does not emit any fume or smell during the first firing. It is flexible, easy to cut and shape and easy to install.

Type

Blanket made from high temperature insulation wool.

Classification temperature

1450°C (EN 1094-1) 2600°F (ASTM C892-17)

Continuous use temperature

1300°C - 1325°C (2372°F - 2417°F)

The maximum continuous use temperature depends on the application. For further advice please contact your local Thermal Ceramics partner.

Melting point

Superwool® XTRA has a melting point of 1650°C / 3000°F

Shot content and fibre index

Superwool® XTRA has a low shot content, typically 35-37% and a high fibre index, typically 63-65%.

Benefits

- Excellent thermal insulating performances
- Exonerated from any carcinogenic classification under Nota Q of directive 97/69EC, certificate available on request
- Does not form crystalline silica when exposed to high temperatures
- Excellent resistance to chemicals and pollutants, especially alkali metals
- High thermal coefficient of expansion to counteract shrinkage in operation
- Excellent thermal stability with time
- Low heat storage
- Immune to thermal shock
- High resistance to erosion when used in stack modules; no damage up to 50 m/sec at 1250°C (2282°F)
- Good resistance to tearing
- Flexible and resilient
- Resistant to water and steam
- Good sound absorption
- Free of binder or lubricant



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Physical properties		Superwool® XTRA Blanket		
Classification temperature	°C (°F)	1450 (2600)		
Melting point	°C (°F)	1650 (3000)		
Typical properties				
Colour		White		
Density	kg/m ³ (pcf)	96 (6), 128 (8), 160 (10)		
Tensile Strength (EN 1094), kPa				
	@96 kg/m ³	> 45		
	@128 kg/m ³	> 70		
	@160 kg/m ³	> 90		
Fibre Diameter (arithmetic mean)	µm	4.5 – 5		
High temperature performance				
Permanent linear shrinkage (EN 1094-1) after 24 hours isothermal heating, %	@1450°C	< 4		
Permanent linear shrinkage (ASTM C892-17) after 24 hours isothermal heating, %	@2600°F	< 4		
Thermal conductivity W/m.K, (ASTM C-201) (BTU in/hr ft ² °F) at mean temperature of:		96kg/m ³	128kg/m ³	160kg/m ³
	200°C (390°F)	0.07 (0.49)	0.07 (0.49)	0.06 (0.42)
	400°C (750°F)	0.11 (0.76)	0.10 (0.69)	0.09 (0.62)
	600°C (1110°F)	0.18 (1.25)	0.16 (1.11)	0.14 (0.97)
	800°C (1470°F)	0.30 (2.08)	0.27 (1.87)	0.23 (1.60)
	1000°C (1830°F)	0.46 (3.19)	0.42 (2.91)	0.34 (2.36)
	1200°C (2190°F)	0.67 (4.65)	0.60 (4.16)	0.49 (3.40)
Chemical composition, %				
	Al ₂ O ₃	32 - 38		
	SiO ₂	27 - 33		
	K ₂ O	23 - 28		
	ZrO ₂	5 - 9		
	MgO	0.5 - 1.5		
	Other oxides	< 0.5		

Availability and packaging

Thickness mm	Density kg/m ³			Length mm	Width mm	Carton m ²
	96 (6)	128 (8)	160 (10)			
6		•		4 x 5500	610	13.42
13	•	•	•	14640	610	8.93
19	•	•	•	9760	610	5.95
25	•	•	•	7320	610	4.46
38	•	•		4880	610	2.98
50	•	•		3660	610	2.23

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SUPERWOOL® is a patented technology for high temperature insulation wools which have been developed to have a low bio persistence (information upon request). **SUPERWOOL®** products may be covered by one or more of the following patents, or their foreign equivalents:

SUPERWOOL® PLUS and **SUPERWOOL® HT** products are covered by patent numbers: US5714421 and US7470641, US7651965, US7875566, EP1544177 and EP1725503 respectively.

SUPERWOOL® XTRA products are covered by patent number: US8088701 and EP2086897B1.

A list of foreign patent numbers is available upon request to Morgan Advanced Materials plc.

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