

Data sheet

Superwool® blanket

ENGLISH

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Description

Superwool® Plus and Superwool® HT blanket offer the same benefits as the other members of the Superwool fibre family but with improved handling strength and enhanced thermal properties. Superwool® Plus and Superwool® HT blanket are manufactured from pure raw materials using a new manufacturing technology. In addition to enhanced thermal properties, large nuisance dust particles have been effectively eliminated making the product soft to the touch and less irritating during use.

Superwool® Plus blanket are made of Superwool® Plus long fibres
Superwool® HT blanket is made of Superwool® HT long fibres

Both Superwool® Plus and Superwool® HT blanket exhibit outstanding insulating properties at elevated temperatures. Superwool® Plus and Superwool HT blanket have excellent thermal stability and retains their original soft fibrous structure up to its maximum continuous use temperature. Superwool® Plus and Superwool® HT blanket are needled from both sides and possesses high strength before and after heating. Superwool® Plus blanket and Superwool® HT blanket contain neither binder nor lubricant and does not emit any fumes or smell during the first firing. They are flexible, easy to cut and shape and easy to install.

Type

Blanket made from high temperature insulation wool.
CAS number: 329211-92-9

Classification temperature

Superwool® Plus blanket: 1200°C (2192°F)

Superwool® HT blanket: 1300°C (2372°F)

The maximum continuous use temperature depends on the application. Unaffected by most chemicals except strong alkalis, phosphoric acid and molybdenum. For further advise please contact your local Morgan Thermal Ceramics partner.

Typical applications

- Power generation especially HRSG duct insulation
- Chimney insulation
- Process heater linings
- Pipe wrap
- Annealing furnace linings
- Furnace and kiln back-up insulation
- Storage heater insulation
- Domestic oven insulation
- Automotive exhaust heat shields
- Aluminium transfer launder covers
- Welding stress relief

Benefits

- Exceptional thermal insulating performance compared with industry standards
- Free of binder or lubricant
- Immune to thermal shock
- Low heat storage
- Good resistance to tearing
- Flexible and resilient
- Good sound absorption
- Superwool® fibre meets the requirements specified under NOTE Q of European Regulation 1272/2008. All Superwool® fibre products are therefore exonerated from labelling requirements in Europe
- No requirement for warning labels under Globally Harmonised System (GHS) for the classification and labelling of chemicals.



SDS:
EU: 144/138
NA: 350
GHS: n/a

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Superwool® blanket

Metric information

	Superwool Plus blanket					Superwool HT blanket				
	1200					1300				
Classification temperature, °C	1200					1300				
Colour	White					White				
Density, kg/m ³	64	80	96	128	160	64	96	128	160	
Thermal conductivity, ASTM C-201, W/m K	@200°C	0.06	0.06	0.05	0.05	0.04	-	0.05	0.04	-
	@400°C	0.11	0.09	0.09	0.08	0.07	-	0.10	0.08	-
	@600°C	0.18	0.15	0.14	0.12	0.11	-	0.19	0.14	-
	@800°C	0.29	0.24	0.21	0.18	0.16	-	0.32	0.23	-
	@1000°C	0.42	0.36	0.29	0.25	0.23	-	0.48	0.34	-
	@1200°C	-	-	-	-	-	-	0.69	0.48	-
Tensile strength, EN 1094-1, kPa	30	45	55	75	90	30	50	75	95	
Permanent linear shrinkage, ENV 1094-1, % after 24 hours isothermal heating, % @1200°C	1					-				
Chemical composition, %	SiO ₂	62 - 68					70 - 80			
	CaO+MgO	-					18 - 25			
	CaO	26 - 32					-			
	MgO	3 - 7					-			
	Other oxides	<1					<3			

Availability and Packaging

Superwool® HT Blanket are packed in cartons, 1260 x 940mm pallet + stretchable film. Marks (o) and width 1220mm upon request (subject to minimum order requirements).

Superwool® Plus blanket

Thickness mm	Density kg/m ³					Length mm	Width mm	Carton m ²
	64	80	96	128	160			
6				•		4 x 5500	610	13.42
10			•	•		18500	610	11.28
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

Superwool® HT blanket

Thickness mm	Density kg/m ³				Length mm	Width mm	Carton m ²
	64	96	128	160			
6		•	•	o	4 x 5500	610	13.42
10		•	•	•	18500	610	11.28
13		•	•	•	14640	610	8.93
19	o	•	•	•	9760	610	5.95
25	o	•	•	•	7320	610	4.46
38	o	•	•	o	4880	610	2.98
50	o	•	•	o	3660	610	2.23

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Whilst the values and application information in this datasheet are typical, they are given for guidance only. The values and the information given are subject to normal manufacturing variation and may be subject to change without notice. Morgan Advanced Materials – Thermal Ceramics makes no guarantees and gives no warranties about the suitability of a product and you should seek advice to confirm the product's suitability for use with Morgan Advanced Materials - Thermal Ceramics.

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.

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

Morgan Advanced Materials plc Registered in England & Wales at Quadrant, 55-57 High Street, Windsor, Berkshire SL4 1LP UK Company No. 286773

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 Superwool[®] blanket

Imperial information

	Superwool Plus blanket		Superwool HT blanket	
Classification temperature, °F (°C)	2192 (1200)		2372 (1300)	
Continuous use temperature, °F (°C)	1832 (1000)		2102 (1150)	
Color	White		White	
Density, pcf (kg/m ³)	6 (96)	8 (128)	6 (96)	8 (128)
Thermal conductivity, ASTM C 201, BTU•in./hr•ft ² •°F (W/m•K)				
@500°F (260°C)	0.46	0.39		0.41
@1000°F (538°C)	0.81	0.73		0.85
@1500°F (816°C)	1.26	1.28		1.57
@1800°F (982°C)	1.57	1.73		-
@2000°F (1093°C)	-	-		2.54
Chemical analysis, %				
SiO ₂	62 - 68		70 - 80	
CaO + MgO	29-39		18 - 25	
Other oxides	<1		<3	
Leachable chlorides	trace		-	

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Availability and Packaging

Thickness, in (mm)	Density, pcf (kg/m ³)				Length, in (mm)	Width, in (mm)	ft ² /carton for 24 in width rolls (m ²)
	4 (64)	6 (96)	8 (128)	10 (160)			
1/4 (6)			•		240 (6095)	24, 48 (610, 1220)	160 (15)
1/2 (13)		•	•	•	600 (15240)	24, 48 (610, 1220)	100 (9)
1 (25)	•	•	•	•	300 (7620)	24, 48 (610, 1220)	50 (5)
1-1/2 (38)	•	•	•		180 (4575)	24, 48 (610, 1220)	30 (3)
2 (50)	•	•	•		150 (3810)	24, 48 (610, 1220)	25 (2)

This is packaging for items purchased from within North America, items for export may have different details and order requirements.