



Superwool[®] Plus and HT Blankets

Product Data Sheet

Product Description

Superwool Plus and Superwool HT Blankets feature exceptional thermal and physical properties. Superwool Plus Blankets are manufactured using patented low shot technology providing ultra low shot resulting in improved handleability and nuisance dust is effectively eliminated. The blankets are flexible, soft to the touch and less irritating during use.

Superwool Plus and Superwool HT Blankets exhibit outstanding insulating properties at elevated temperatures. Superwool Plus and Superwool HT blanket have excellent thermal stability and retain their original soft fibrous structure up to its maximum continuous use temperature.

Superwool Plus and Superwool HT Blankets are needled from both sides and possess high strength before and after heating. Superwool Plus and Superwool HT Blankets do not contain binder or lubricant and do not emit any fumes or smell during the first firing.

Features

- Superwool Blankets are immune to thermal shock
- The fibres are opaque to infra-red and so maintain their low thermal conductivity to high temperature
- The fibres absorb very little energy on heating
- The fibres are high purity and non-corrosive
- The fibres are flexible and resilient to mechanical damage

Applications

- Power generation especially HRSG duct insulation
- Industrial and Commercial Chimney insulation
- Furnace, Boiler and Heater linings
- Pipe wrap
- Back-up linings in kilns and furnaces
- Consumer goods
- Storage heater insulation
- Metals applications like launder covers
- Welding stress relief

Environmental & Health Safety

Superwool low biopersistent fibres manufactured by Morgan Advanced Materials are not classified as carcinogenic by IARC or under any national regulations on a global basis. They have no requirements for warning labels under GHS (Globally Harmonised System for the classification and labelling of chemicals).

In Europe, Superwool fibres meet the requirements specified under Note Q of European Regulation EC/1272/2008 (on Classification, Labelling and Packaging of substances and mixtures). All Morgan Advanced Materials Superwool low biopersistent fibre products are therefore exonerated from classification and labelling as hazardous in Europe.

Superwool[®] Plus and HT Blanket

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Properties	Superwool Plus	Superwool HT
Colour	White	White
Classification Temperature, °C (°F)	1200 (2190)	1300 (2370)
Continuous Use Temperature, °C (°F)	1050 (1920)	1150 (2100)
Melting Temperature, °C (°F)	1325 (2400)	1425 (2600)
Density, kg/m ³ (pcf)	64, 80, 96, 128, 160 (4, 5, 6, 8, 10)	64, 96, 128, 160 (4, 6, 8, 10)
Tensile Strength, average, kPa (psi), EN 1094-1		
Measured Blanket density, kg/m ³ (pcf), 64 (4)	30 (4.35)	30 (4.35)
80 (5)	45 (6.53)	-
96 (6)	50 (7.25)	50 (7.25)
128 (8)	75 (10.88)	75 (10.88)
160 (10)	90 (13.05)	90 (13.05)
Chemical Analysis, %		
Silica, SiO ₂	62 - 68	70 - 80
Calcium oxide, CaO	26 - 32	18 - 26
Magnesium oxide, MgO	3 - 7	<5
Other	<1	<3

Thermal Conductivity, W/m·K, per ASTM C201						
Density, kg/m ³ (pcf)	Superwool Plus Blanket				Superwool HT Blanket	
	64 (4)	96 (6)	128 (8)	160 (10)	96	128
200°C	0.06	0.05	0.05	0.04	0.05	0.04
400°C	0.11	0.09	0.08	0.07	0.10	0.08
600°C	0.15	0.14	0.12	0.11	0.19	0.14
800°C	0.24	0.21	0.18	0.16	0.32	0.23
1000°C	0.36	0.29	0.25	0.23	0.48	0.34
1200°C	-	-	-	-	0.69	0.48
Thermal Conductivity, BTU·in/hr·ft ² , per ASTM C201						
500°F	0.50	0.42	0.40	0.33	0.42	0.34
1000°F	0.94	0.86	0.74	0.66	1.10	0.83
1500°F	1.74	1.49	1.28	1.16	2.28	1.64
1832°F	2.49	2.01	1.73	1.60	3.33	2.36
2000°F	2.91	2.31	2.00	1.83	3.99	2.79
2200°F	-	-	-	-	4.81	3.35

Product Availability

Superwool Plus and Superwool HT Blankets are manufactured and available globally, but packaging, density and thickness vary by region. Please contact your regional Morgan Advanced Materials - Thermal Ceramics representative to support providing specific packaging availability for your local business needs.

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.