

Data sheet

Superwool® Bulk

ENGLISH

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Superwool® Plus and Superwool® HT bulk 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 bulk 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 bulk is made of Superwool® Plus long fibres
Superwool® HT bulk is made of Superwool® HT long fibres

Both Superwool® Plus bulk and Superwool® HT bulk consist of a loose mass of randomly orientated low bio persistent fibres. Superwool® Plus bulk has excellent thermal stability and retains its original soft fibrous structure up to its maximum continuous use temperature of 1000°C (1832°F). Above that limit the material will start to show signs of hardening due to crystallisation and so we would recommend Superwool® HT bulk as an alternative with a maximum continuous use temperature of 1150°C (2102°F). Superwool® Plus bulk and Superwool® HT bulk contain no binder and do not emit fumes or smell during the first firing.

Type

Bulk high temperature insulation wool.

Classification temperature

Superwool® Plus bulk: 1200°C (2192°F)
Superwool® HT bulk: 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.

Grades available

Lubricated Bulk: Code 73 / Code 111

Lubricated fibre:
2 grades available:

- Extra Long
- Long lubricated fibre

For infill in the roofs and walls of certain types of kilns
For seals around penetrations in furnaces, such as burner tubes, site holes etc, areas in refractory construction.

Un-lubricated Bulk: Code 70

Un-lubricated fibre:
Grades available:
- HM-12, HM-25, HM-50, HM-112
- Extra Long fibre
- Long fibre
- Medium fibre
- Short fibre

Un-lubricated fibre is used in vacuum forming processes, mastics, mouldables sprays and coatings. Selection of different fibre lengths controls the properties of the final product.

Typical applications

- Vacuum forming feedstock
- Textile manufacturing
- Building expansion joints
- Chimney fill
- Fire door infill

Benefits

- Superwool® Plus Bulk is virtually 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 resilient and also resistant to mechanical damage
- Exonerated from any carcinogenic classification under nota Q of directive 97/69 EC



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

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Metric information

	Superwool Plus bulk				Superwool HT bulk	
Classification temperature, °C	1200				1300	
Maximum continuous use temperature, °C	1000				-	
Colour	white				white	
Density, kg/m ³	64	80	96	128	96	128
Specific gravity, g/cm ³	2.65				2.50	
Specific heat capacity, kJ/kg.K						
@ 1090°C	-				1.22	
Thermal conductivity, ASTM C-201, W/m K						
@200°C	0.06	0.06	0.05	0.05	0.05	0.04
@400°C	0.11	0.09	0.09	0.08	0.10	0.08
@600°C	0.18	0.15	0.14	0.12	0.19	0.14
@800°C	0.29	0.24	0.21	0.18	0.32	0.23
@1000°C	0.42	0.36	0.29	0.25	0.48	0.34
@1200°C	-	-	-	-	0.69	0.48
Chemical composition, %						
SiO ₂	62 - 68				70 - 80	
CaO+MgO	-				18 - 25	
CaO	26 - 32				-	
MgO	3 - 7				-	
Others	<1				<3	

Availability and Packaging

Bales: Superwool® Plus Bulk is available in 70kg bales (only non-lubricated available)
Superwool® HT Bulk is available in 70kg bales (only non-lubricated or lubricated Long fibre available).

Bags: The following grades of Superwool® Plus Bulk & Superwool® HT Bulk are available in polyethylene bag with the following weight.

Superwool® Plus Bulk and Superwool® HT Bulk in bags are packed in 1200 x 1100mm pallet (30 bags per pallet).

Please check with your local supplier for more information.

Type	Grade	Bag weight kg
Superwool® Plus & HT Lubricated Fibre	Extra Long	10
	Long	15
Superwool® Plus & HT Unlubricate Fibre	Extra Long	10
	Long	15
	Medium	17
	Short	20

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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.

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Superwool® Bulk

Imperial information

	Superwool Plus bulk	Superwool HT bulk
Classification temperature, °F	2192	2372
Color	white	white
Chemical analysis, %		
SiO ₂	62 - 68	70 - 80
CaO	26 - 32	-
MgO	3 - 7	-
Others	<1	<3

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