Superwool® HT Bulk

Datasheet Code EU: 11-4-04 E




Description

Superwool® HT Bulk consists of a mass of randomly oriented, normally long, fluffy refractory fibres.

Superwool® HT Bulk has an excellent thermal stability and retains its original soft fibrous structure up to maximum continuous use temperature.

Superwool® HT Bulk contains no binder and a low amount of lubricant but does not emit fumes or smell during the first firing.

Type

Bulk high temperature insulation wool.

Classification Temperature

1300°C (EN 1094-1)

The maximum continuous use temperature depends on the application. Please contact Morgan Thermal Ceramics for advice.

Grades Available

Lubricated Bulk: Code 73

Lubricated fibre:
Two grades available : Extra Long and Long lubricated fibre
For infil 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

4 grades available:
- 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.

Benefits

- Superwool® HT 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
- No reaction with alumina based bricks in application in the range of typical use temperature
- Exonerated from any carcinogenic classification under nota Q of directive 97/69 EC

SUPERWOOL® is a patented technology for high temperature insulation wools which have been developed to have a low bio persistence (information upon request). This product may be covered by one or more of the following patents, or their foreign equivalents:- SUPERWOOL® PLUS™ products are covered by patent numbers:- US5714421, US5994247, US6180546, US7259118, and EP0621858. SUPERWOOL® 607HT™ products are covered by patent numbers:- US5955389, US6180546, US7259118, US7470641, US7651965, US7875566, EP0710628, EP1544177, and EP1725503. A list of foreign patent numbers is available upon request to The Morgan Crucible Company plc.

Superwool® HT Bulk

Main properties

Classification Temperature	°C	1300
Typical Properties		
Colour		white
Specific gravity	g/cm^3	2.50
High Temperature Performance		
Specific heat capacity at 1090°C	kJ/kg.K	1.22

Thermal Conductivity (ASTM C-201)
Thermal Conductivity depends on the degree of compression in the installation.
The table below gives thermal conductivity for needled blanket which is compressed fibre which can be used as an indication to your requirements.
Following the decision by the European standards committee to withdraw the Thermal Conductivity test according to EN1094-1 as being inaccurate, Morgan Thermal Ceramics has decided to quote all Thermal Conductivity data according to the well established ASTM C201 method.

Thermal Conductivity	**96kg/m³**	**128kg/m³**
200°C W/m.K	0.05	0.04
400°C W/m.K	0.10	0.08
600°C W/m.K	0.19	0.14
800°C W/m.K	0.32	0.23
1000°C W/m.K	0.48	0.34
1200°C W/m.K	0.69	0.48

Chemical Composition		
SiO_2	%	70-80
CaO + MgO	%	18-25
Others	%	<3

Availability and Packaging
Bales: Superwool® HT Bulk is available in 70kg bales (only non-lubricated or lubricated Long fibre available).
Bags: The following grades of Superwool® HT Bulk are available in polyethylene bag with the following weight.

Type	**Grade**	**Bag weight**
Superwool® HT Lubricated Fibre	Extra Long	10 kg
	Long	15 kg
Superwool® HT Unlubricated Fibre	Extra Long	10 kg
	Long	15 kg
	Medium	17 kg
	Short	20 kg

Superwool® HT in bags are packed in 1200 x1100mm pallet (30 bags per pallet). Please check with your local supplier for more information.