



Superwool[®] Prime Paper

Product Data Sheet

Product Description

Superwool Prime Paper is manufactured using Morgan's newest fibre chemistry with a classification temperature of 1300°C (2372°F).

Using patented low-shot technology fibres in a non-woven matrix with special organic binders, Superwool Prime Paper provides excellent thermal properties combined with high strength for various applications.

Superwool Prime Paper is an alternative to traditional solutions due to their unmatched properties of high refractoriness, elevated temperature capabilities and lower thermal conductivity. These papers have excellent non-wetting characteristics for applications requiring direct contact with molten aluminium.

Superwool provides stability and resistance to chemical attacks. Exceptions include hydrofluoric acid, phosphoric acid and strong alkalis (i.e. NaOH, KOH). In addition, Superwool is unaffected by incidental spills of oil or water. Thermal and physical properties are restored after drying.

Please contact your regional Morgan Advanced Materials - Thermal Ceramics representative to support your application requirements.

Features

- Low biopersistence fibre
- Excellent thermal insulating performance
- Thin, flexible high temperature insulation
- Immune to thermal shock
- Low heat storage
- Easily die-cut to form complex shapes for high-temperature gasketing
- Excellent tensile strength
- Low thermal conductivity
- Non-wetting to molten aluminium

Applications

- Refractory back-up in various industrial applications
- Industrial and domestic appliance gasketing
- Glassware separators and Glass tank refractory back-up
- Non-Ferrous ingot mould liners
- Aluminium transfer system backup insulation
- Parting medium in induction furnaces
- Automotive heat shields and muffler insulation
- Insulation of various consumer goods like ovens, stoves, boilers, electric heaters
- Various molten metal handling applications in steel includes
 - Investment casting mould wrapping
 - Ladle shroud and nozzle wrapping
 - Ladle back-up
 - Gasketing

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.

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Properties		Superwool Prime Paper
Colour		White
Classification Temperature, °C (°F), EN 1094-1 (2008)		1300 (2372)
Continuous Use Temperature, °C (°F)		1200 (2192)
Density, kg/m ³ (pcf), EN 1094-1 (2008)		180 - 250 (11 - 16)
Tensile strength, MPa (psi), EN 1094-1 (2008)		0.45 (65)
Loss of Ignition, %		<10
Permanent Linear Shrinkage, %, after 24 hours, ENV (1094-1)		
	1200°C (2192°F)	<1
	1300°C (2372°F)	<2
Chemical Analysis, %		
	Alumina, Al ₂ O ₃	trace
	Silica, SiO ₂	62 - 72
	Calcium, CaO	30 - 35
	Magnesia, MgO	<0.5
	Other	<0.5
Thermal Conductivity, W/m·K, ASTM C201		
	200°C	0.05
	400°C	0.08
	600°C	0.12
	800°C	0.16
	1000°C	0.22
	1200°C	0.28
Thermal Conductivity, BTU·in/hr·ft²·°F, ASTM C201		
	500°F	0.41
	1000°F	0.72
	1500°F	1.15
	2000°F	1.70
	2200°F	1.94

Product Availability

Superwool Prime Paper is manufactured and available globally, but packaging, thickness, width and length 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.