Data sheet

Superwool® Paper

ENGLISH

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Description

Superwool® papers are uniquely designed from Superwool® bulk and organic binders. Superwool® papers are specially processed to offer excellent performance in high-temperature applications. Superwool® papers offer an alternative to traditional solutions due to its unique properties of high refractoriness and excellent non-wetting characteristics to applications requiring direct contact with molten aluminium.

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

Superwool® Flex-Wrap is produced from a blend of Superwool® high purity fibers and organic binders. Due to its low organic binder content, offgassing is at a minimum.

Superwool® 332-E paper is totally organic free and is ideally suited for mid-range temperatures found in the appliance, non-ferrous and automotive applications.

For Superwool® Flex-Wrap and 332-E please refer to imperial information on page 3.

Type

Paper manufactured from high temperature insulation wool.

Classification temperature

From 1100°C (2012°F) to 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

- Industrial and domestic appliance gasketing
- Non-Ferrous ingot mould liners
- Aluminium transfer system back-up insulation
- Parting medium in induction furnaces
- Automotive heat shields

Benefits

- Low biopersistence
- Thin, flexible high temperature insulation
- Thermal stability
- Low heat storage
- Easily die-cut to form complex shapes for high temperature gasketing
- Excellent tensile strength
- Immune to thermal shock
- Excellent thermal insulating performance
- Low thermal conductivity and heat storage
- Non-wetting to molten aluminium
- Exonerated from any carcinogenic classification under nota Q of directive 97/69EC
- Exonerated from any use restriction under annexe V number 7.1 of the German hazardous substances regulation

Data sheet

Superwool® Paper

Metric information
Manufactured in the UK

	Superwool® Plus Paper	Superwool® LCF Plus Paper	Superwool® HT Paper
Classification temperature, °C	1200	1200	1300
Colour	White	White	White
Density, kg/m³	190 - 210	190 - 215	220
Tensile strength, EN 1094-1, kPa	>0.65	>0.65	>0.45
Thermal conductivity, ASTM C-201, **W/Mk**			
@ 200°C	0.05	0.04	0.04
@ 400°C	0.07	0.06	0.07
@ 600°C	0.11	0.09	0.10
@ 800°C	0.16	0.13	0.14
@ 1000°C	0.23	0.17	0.19
@ 1200°C	-	-	0.25
Linear shrinkage, %			
@ 1000°C	<2	-	-
@ 1200°C	<2	<2	-
@ 1300°C	-	-	<2
Chemical composition, %			
SiO_2	60 - 70	60 - 70	-
CaO+MgO	30 - 37	30 - 37	-
Others	<3	<3	<3

Availability and Packaging

Superwool® Plus Paper is available in 1000mm, 610mm and 500mm wide rolls packed in cartons.

Superwool® HT Paper is available in 500mm, 610mm, 1000mm and 1220mm wide rolls, packed in cartons.

Non standard roll widths and lengths can also be supplied.

Grade	Thickness mm	Length m
Superwool® Plus Paper only	0.5	80
Superwool® Plus & HT Paper	1	40
	2	20
	3	15
	4	10
	5	10
	6	10
	7	10
	8	10
	9	10
	10	10

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Data sheet

Superwool® Paper

Imperial information
Manufactured in the US

	Superwool® 607 332-E Paper	Superwool® 607 Paper	Superwool® 607 Flex-Wrap Paper	Superwool® HT Paper
Continuous use limit, °F	1300	1832	1832	2102
Maximum continuous use temperature, °F	-	2012	2012	2372
Color	white	white	white	white
Melting point, °F	1800	2327	2372	2552
Density, pcf	11 - 14	11 - 13	10 - 13	11 - 14
Thermal conductivity, ASTM C 201, **BTU•in./hr•ft²•°F**				
@500°F	0.35	0.39	0.39	0.39
@1000°F	0.53	0.65	0.65	0.65
@1500°F	-	1.04	1.04	1.02
@1800°F	-	1.35	1.35	-
@2000°F	-	-	-	1.52
Loss of ignition, %	0.5 max	5 - 10	2 - 5	5 - 10
Chemical analysis, %				
SiO_2	65	60 - 70	60 - 70	60 - 70
Al_2O_3	-	trace	trace	trace
CaO	25	25 - 35	25 - 35	16 - 22
MgO	5	4 - 7	4 - 7	12 - 19
Other	5	1	1	<1

Availability and Packaging

Non standard roll widths and lengths can also be supplied.

Products	Thickness, in	Width, in	Sq. FT/Roll	Mill Rolls, L.FT
Superwool® 607 332-E	1/32	12, 24, 48	1000	-
Superwool® 607 Superwool® 607 Flex-Wrap Superwool® 607 HT Superwool® 607 332-E	1/16	12, 24, 48	500	750
Superwool® 607 Superwool® 607 Flex-Wrap Superwool® 607 HT Superwool® 607 332-E	1/8	12, 24, 48	250	375
Superwool® 607 Superwool® 607 Flex-Wrap Superwool® 607 HT Superwool® 607 332-E	1/4	12, 24, 48	125	185

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