

Superwool[®] Plus Blok Boards

Product Data Sheet



Product Description

Superwool Plus Blok Boards are made from Superwool Plus fibres, mineral fibres and a small amount of organic binder. Due to this high fibre content, Superwool Plus Blok Boards are strong, lightweight and thermal shock resistant.

All grades of Superwool Plus Blok Boards receive a water repellence treatment to prevent absorption of water or concrete binders. Superwool Plus Blok 1100LQ is a low quartz grade of Superwool Plus Blok 1100.

The boards must be installed so that the side with the product name is in contact with the concrete. When tested on this side, Superwool Plus Blok Boards are classified as non-hydrophilic (NF P 75-305).

Thicknesses over 50mm are obtained by layering together two thinner sheets. For Superwool Plus Blok 800 Boards, it is 60mm.

Features

- Water repellent
- Resistant to thermal shock
- Good resistance to temperature cycling
- Low thermal conductivity
- Precise geometry and close tolerances
- Homogeneous structure, easy for machining
- Non-brittle
- High fibre content
- Exonerated from any carcinogenic classification
- Lightweight, low heat storage
- Easy to install

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.

Applications

- Backup insulation for bricks (IFB) and monolithics
- Standalone refractory insulation
- CPI furnaces
- Tunnel kilns
- Ladle backup
- Aluminium pot cells
- Float glass furnace backup

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Properties	Superwool Plus Blok 800	Superwool Plus Blok 1000	Superwool Plus Blok 1100	Superwool Plus Blok 1100 LQ	Superwool Plus Blok AL
Region of Manufacture			Europe		
Colour			White/Tan		
Classification Temperature, °C (°F)	1000 (1832)	1100 (2012)	1100 (2012)	1100 (2012)	1000 (1832)
Density, kg/m ³ (pcf)		·	320 (19.97)	•	
Modulus of Rupture, MPa (psi)	0.7 (101.5)	0.8 (116)	0.8 (116)	0.9 (130.5)	0.8 (116)
Compressive strength @ 10% deformation, MPa (psi)	0.3 (43.5)	0.3 (43.5)	0.3 (43.5)	0.3 (43.5)	0.3 (43.5)
Loss of Ignition, LOI, % after 2 hours heating @ 800°C (1472°F)	5.5	5.0	5.0	5.0	5.5
Water absorption, %	<7				
Permanent Linear Shrinkage, %, EN 1094-1					
@ Classification temperature			<2		
Chemical Analysis, %					
Alumina, Al ₂ O ₃	14	15	10	16	19
Silica, SiO ₂	61	59	59	57	54
Calcium oxide + Magnesium oxide, CaO + MgO	18	19	28	25	21
Other	7	7	3	2	6
Thermal Conductivity, W/m•K (BTU•in/hr•ft ²), ASTM C201					
200°C (392°F)	0.06 (0.42)	0.07 (0.49)	0.06 (0.42)	0.06 (0.42)	0.07 (0.49)
400°C (752°F)	0.09 (0.62)	0.09 (0.62)	0.08 (0.56)	0.08 (0.56)	0.09 (0.62)
600°C (1112°F)	0.12 (0.83)	0.12 (0.83)	0.12 (0.83)	0.12 (0.83)	0.12 (0.83)
800°C (1472°F)	0.16 (1.11)	0.15 (1.04)	0.16 (1.11)	0.16 (1.11)	0.15 (1.04)
1000°C (1832°F)	-	0.21 (1.46)	0.21 (1.46)	0.21 (1.46)	0.21 (1.46)

Product Availability

Superwool Plus Blok Boards are manufactured and packaged for Europe regional business. Please contact your regional Morgan Advanced Materials - Thermal Ceramics representative to support packaging availability for your regional business needs.

Standard sizes, mm (in)	1000 x 1200 (39.4 x 47.2) and 1000 x 600 (39.4 x 23.6)	
Thickness, mm (in)	25mm, 30mm, 40mm, 50mm, 60mm, 70mm, 80mm, 90mm and 100mm (1in, 1.2in, 1.6in, 2in, 2.4in, 2.75in, 3.15in, 3.5in, 3.9in) <i>Thicknesses over 50mm (2in) are obtained by bonding together two thinner sheets except for Blok 800 which is available</i> <i>in 60mm (2.4in)</i>	
Packaging details	Superwool Plus Blok Panels are packed on pallets. 1225mm x 1020mm (48in x 40in). Protected with cardboard and shrink wrapped with recyclable plastic.	

The product(s) represented are intended for industrial refractory applications. The values and application information in this datasheet 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.