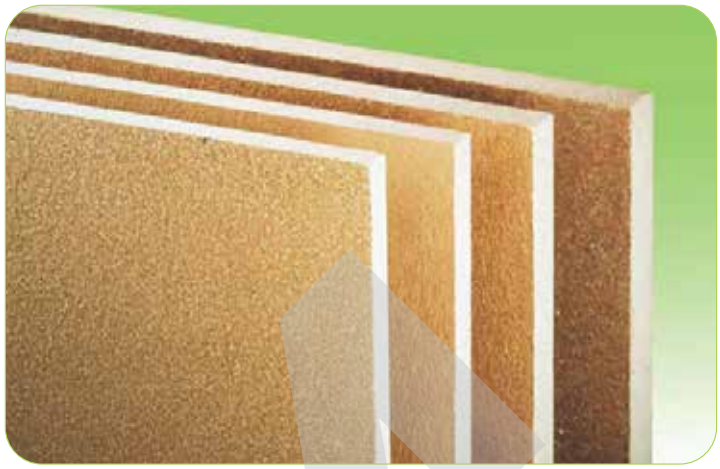
Superwool® Plus Blok

Material Type: Back-up insulation blocks.



Classification Temperature

Superwool® Plus Blok 800 : 1000 °C
Superwool® Plus Blok 1000 : 1100 °C
Superwool® Plus Blok 1100 : 1100 °C
Superwool® Plus Blok 1100 LQ : 1100 °C

Description

Superwool® Plus Blok sheets are made from Superwool® Plus* fibres, mineral fibres and small amount of organic binder. Due to the high fibre content, the material is strong, lightweight and resistant to thermal shocks. All grades of Superwool® Plus Blok receive water repellence treatment to prevent absorption of water or concrete binders. The panels 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 is classified as non-hydrophilic (NF P 75-305).

Maximum Use Temperature

The maximum use temperature depends on the application. Refer to our company for advice.

Features

- Water repellent.
- Resistant to thermal shock.
- Low thermal conductivity.
- Precise geometry and close tolerances.
- Homogeneous structure, easy for machining.
- Non-brittle.
- High fibre content.
- Lightweight and low heat storage.
- Easy to install.
- Exonerated from any carcinogenic classification under nota Q of directive 97/69 EC.
- Quartz-free (for Blok 1100 LQ version)

Applications

Mainly used as back-up insulation purpose for dense or insulating refractory products. Other fields of application:

- Galvanising.
- Cement industry.
- Industrial furnaces.
- Drying furnaces.
- Glass industry: Cooling furnaces, lehr, feeders and regenerators.
- Aluminium industry: Electrolytic reduction cells. (Superwool® Plus Blok 800 and Superwool® Plus Blok 1000)
- Petrochemical industry: Superwool® Plus Blok 800 and Superwool® Plus Blok 1000

Main Properties	Superwool® Plus Blok 800	Superwool® Plus Blok 1000	Superwool® Plus Blok 1100	Superwool® Plus Blok 1100 LQ
Classification Temperature, °C	1000	1100	1100	1100
Physical Properties at Ambient Conditions (23°C/50% Humidity)				
Colour	White/Tan	White/Tan	White/Tan	White/Tan
Density, kg/m3	320	320	320	320
Modulus of Rupture, MPa	0.70	0.80	0.80	0.90
Compressive Strength, MPa (10% reduction in thickness)	0.30	0.30	0.30	0.30
Water Absorption after 2 hours, %	2	2	2	2
High Temperature Performance				
Loss on Ignition, LOI, % after 2 hours heating @ 800 °C	5.5	5.0	5.0	5.0
Permanent Linear Shrinkage, %, 24 hours (EN 1094-1)				
1000 °C	1.4	-	-	-
1100 °C	-	1.4	1.3	1.3
Thermal Conductivity, W/m.K (ASTM C-201)				
200 °C	0.05	0.06	0.05	0.05
300 °C	0.05	0.06	0.06	0.06
400 °C	0.06	0.07	0.07	0.07
500 °C	0.07	0.09	0.08	0.08
600 °C	0.08	0.10	0.09	0.09
800 °C	0.12	0.13	0.12	0.12
1000 °C	-	-	0.16	0.16
Chemical Composition, %				
Al_2O_3	13.9	15.1	10.1	16.2
SiO_2	61.2	59.4	59.5	56.5
CaO + MgO	18.3	19.4	28.2	24.6
Fe_2O_3 + TiO_2	3.0	3.8	1.2	1.3
Na_2O + K_2O	3.6	2.3	1.0	1.4
Standard Dimensions, mm (Length x Width)	1000 x 600			
Thickness, mm	25, 30, 40, 50, 60, 70, 80,90 and 100 (Thickness over 50mm is obtained by gluing two standard slabs together.)			

* Superwool® Plus is a low bio-persistent fibre.

The values given herein are typical average values obtained in accordance with standard test methods and subject to normal manufacturing variations. They are supplied as technical data and may change without notice. Contact our company to obtain detailed information.

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