Kaowool™ VF Shapes

Product Data Sheet

Product Description

Kaowool™ VF Shapes are insulating products made from a mixture of refractory ceramic fibre by vacuum forming.

This process allows for a variety of configurations, tailored to the particular application and ranging from simple sections (such as sleeves, cones) to complex shapes. Compositions are available for service temperatures from 1260°C to 1600°C. For utilization over this range of temperature, please refer to our Alphawool datasheet. Shapes can also be produced in a strong composition which gives higher strength and density. Thermal properties are similar to the normal grades but with improved resistance to erosion.

Kaowool™ 1260 LB and 1400 LB is a flexible shape which shows good dimensional resilience after compression and make utilization of these shapes very easy where rigid shapes are unsuitable.

Kaowool™ VF can also be supplied as a Wet Pak in size of 1000 x 1000mm, packed wet into individual plastic bags. The sheets ca be formed in situ to any shape desired, which on drying develops properties similar to those of Kaowool™ VF products. Wet Pak have a shelf life in a moist state of up to 42 days provided that the bags remain sealed and are maintained at temperatures within the range of 10°C to 50°C (50°F to 122°F).

All shapes have low shrinkage at temperatures within their service rating and retain the properties of high insulation light weight and resistance to thermal shock which are characteristic of Kaowool Ceramic Fibre.

The unfired material can be easily cut or machined.

Special Treatment

Kaowool Hardener or Cement may be applied if required to shapes in order to provide a protective surface coating up to a temperature of 1260°C.

Kaowool 1260 Shapes can also be dipped in a hardening solution to meet individual customer requirements.

Features

- High temperature stability
- Low thermal conductivity
- Low heat storage
- Rigidity and high cohesive strength allow machining and cutting
- Resistant to thermal shock
- Good erosion resistance
- Can be used in direct contact with flame
- Easy application

Applications

These versatile products can be used where rigid shapes, self supporting are required for high temperature insulation (according to the mix). Designed as per customer drawings, they are easy to install.

Kaowool 1260 LB is particularly recommended for sealing applications.

- Expansion joints
- Furnace lining
- Electrical kilns
- Laboratory equipment
- Glass & Petrochemical industry

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	1260	Strong	1260 LB	Ceraform 400	1400	1600
Classification Temperature, °C	1260	1260	1260	1260	1400	1600
Colour	white / tan			grey	white / tan	
Nominal density, kg/m^3	280	330	200	390	280	320
Modulus of rupture, MPa (unfired)	>1.4	2.7	Flexible	1.6	>0.99	>0.4
Compressive strength at 5% relative deformation, MPa	-	-	0.56		-	-
Permanent linear shrinkage after 24 hours isothermal heating at maximum continuous use temperature (EN 1094 part 1)	-	-	-	2.5	-	-
Approx. weight loss on 1st firing, %	5-7					
Thermal Conductivity W/m.K, (ASTM C-201) at mean temperature of						
200°C	0.07	0.06	0.07	0.09	0.06	-
400°C	0.09	0.09	0.09	0.10	0.08	0.08
600°C	0.11	0.12	0.11	0.12	0.10	0.11
800°C	0.15	0.16	0.15	0.16	0.13	0.14
1000°C	-	-	-	0.22	0.18	0.16
1200°C	-	-	-	-	0.23	0.19
1400°C	-	-	-	-	-	0.25

Availability and Packaging

The Kaowool VF Boards are supplied with the following standard dimensions and thicknesses.

Product Type	Standard dimensions, mm	Thicknesses, mm
Kaowool 1260	1000 x 1000 or 1000 x 500	10, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
Kaowool 1400		
Kaowool 1600		

Boards and Shapes can also be manufactured in bespoke shapes, sizes and thicknesses to meet individual customer requirements. Please contact your local Morgan Advanced Materials - Thermal Ceramics sales representative for more information.

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.

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