

Data sheet

Kaowool™ VF shapes

ENGLISH

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Description

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

This process allows the production of 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 utilisation 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 & 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 can 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.

Type

Vacuum formed shapes.

Classification temperature

From 1260°C up to 1600°C

The maximum continuous use temperature depends on the application. Please contact Morgan Advanced Materials, Thermal Ceramics for advice.

Typical 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 1260LB is particularly recommended for sealing applications.

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 supplied in through-hardened material to individual customer requirements.



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Metric information

	1260	Strong	1260 LB	1400	1600
Classification temperature, °C	1260	1260	1260	1400	1600
Properties Measured at Ambient Conditions (23°C/50% RH)					
Colour	white / tan	white / tan	white / tan	white / tan	white / tan
Nominal density, kg/m³	280	330	200	280	320
Modules of rupture, MPa					
Unfired	>1.4	2.7	Flexible	>0.99	>0.4
Compressive strength, MPa					
@5% relative deformation	-	-	0.56	-	-
High Temperature Performance					
Approx. weight loss on 1st firing %	5-7	5-7	5-7	5-7	5-7
Thermal conductivity W/m.K, (ASTM C-201) at mean temperature of:					
@200°C	0.07	0.06	0.07	0.06	-
@400°C	0.09	0.09	0.09	0.08	0.08
@600°C	0.11	0.12	0.11	0.1	0.11
@800°C	0.15	0.16	0.15	0.13	0.14
@1000°C	-	-	-	0.18	0.16
@1200°C	-	-	-	0.23	0.19
@1400°C	-	-	-	-	0.25

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SUPERWOOL® is a patented technology for high temperature insulation wools which have been developed to have a low bio persistence (information upon request). **SUPERWOOL®** products may be covered by one or more of the following patents, or their foreign equivalents:

SUPERWOOL® PLUS and **SUPERWOOL® HT** products are covered by patent numbers: US5714421 and US7470641, US7651965, US7875566, EP1544177 and EP1725503 respectively.

A list of foreign patent numbers is available upon request to Morgan Advanced Materials plc.

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