



DESCRIPTION

Fiberfrax Rigiform shapes are manufactured from Fiberfrax refractory ceramic fibres, blended with specially selected inorganic and organic binders to give rigid insulating shapes with exceptional characteristics. The vacuum forming manufacturing method permits considerable freedom to vary shape, thickness, density and hardness. Fiberfrax Rigiform shapes often provide the most economical answer to producing large quantities of parts in simple or complex configurations for a wide range of high temperature applications.

GENERAL CHARACTERISTICS

Fiberfrax Rigiform shapes have the following outstanding characteristics:

- High temperature stability
- Low thermal conductivity
- Resistance to thermal shock
- Lightweight
- Complex shape capability

TYPICAL APPLICATIONS

- Furnace sight doors
- Electric element supports
- Riser sleeves
- Tap out cones & tundishes
- Hot tops (steel casting)

Any new and/or special use of these products, whether or not in an application listed in our literature, must be submitted to our technical department for their prior written approval.

*Start saving energy now.
Contact your local distributor.*

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FIBERFRAX RIGIFORM

Fiberfrax Rigiform shapes contain a small percentage of organic binder in addition to inorganic hardening agents. Therefore the products display uniform hardness and density as well as exceptional handling strength. Rigiform shapes can be finished using our in-house machining facilities. Various formulations are available to cover a range of application temperatures and requirements. Further treatment is possible to increase hardness and remove organics prior to use. Pre-firing can be carried out at either 800°C or 1200°C.

TYPICAL PRODUCT PARAMETERS

Rigiform	LD	HD	Z	1500
Typical Chemical Analysis (fibre wt.%)				
SiO ₂	50.0 - 58.0	50.0 - 58.0	52.0 - 56.0	37.0 - 43.0
Al ₂ O ₃	42.0 - 50.0	42.0 - 50.0	28.0 - 32.0	57.0 - 63.0
ZrO ₂	-	-	14.0 - 18.0	-
Alkalis	<0.25	<0.25	<0.25	<0.25
Fe ₂ O ₃ + TiO ₂	<0.20	<0.20	<0.20	<0.20
Physical Properties				
Colour	Beige	Beige	Beige	Beige
Classification Temperature (°C)*	1250	1250	1400	1500
Density (kg/m ³) ⁺	250-300	275-325	250-300	200-300
Loss on ignition (%)	<10	<10	<10	<10
Thermal Conductivity (W/mK)				
Mean Temp.				
600 °C	0.09	0.11	-	-
800 °C	0.13	0.15	0.15	-
1000 °C	0.17	0.21	0.20	0.16
1200 °C	-	-	0.27	0.20
1400 °C	-	-	-	0.26

*Classification Temperature is not a definition of the operational limit of these products, especially when long term physical or dimensional stability is a factor. For certain applications operational temperature limits may be significantly reduced. For assistance or clarification please contact your nearest Unifrax Engineering office.

+Density is indicative and relates to product characteristics before any secondary treatment. Actual density is dependent on piece size and geometry.

Where appropriate Physical Properties data measured according to EN 1094-1.

AVAILABILITY

Fiberfrax Rigiform shapes are engineered to specific customer requirements and are therefore made to order. Please contact your local Unifrax sales office to discuss your particular requirements. Rigiform shapes are typically available in thicknesses ranging from 5mm to 200mm depending on the size and profile of the piece.

Packaging is either in cardboard cartons or shrink wrapped on pallets.

HANDLING INFORMATION

A Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on handling precautions and emergency procedures. This must be consulted and fully understood before handling, storage or use.

Supplied by: