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Contact your local distributor.*

Unifrax Ltd.

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DESCRIPTION

Fiberfrax Riform shapes and boards 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 Riform shapes and boards often provide the most economical answer to producing large quantities of parts in simple or complex configurations for a wide range of applications up to 1300°C.

GENERAL CHARACTERISTICS

Fiberfrax Riform shapes and boards have the following outstanding characteristics:

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

TYPICAL APPLICATIONS

Aluminium

Launders, Pouring ladles and cups, Caster tips, Hot tops, Riser sleeves, Tap out cones, Feeder boxes, Sampling spoons

Steel

Hot tops, Roller insulation, Crucibles, Gaskets, Preheating cones

Furnaces

Sight doors (peepholes), Burner blocks, Furnace lining, Electric element support

Other applications (e.g. Petrochemical, Glass, Appliance)

Collector insulations, Fuel gas channel, Hot gas filtering, Ovens/stoves, Boiler doors, Fire Protection, Laboratory and dental furnaces.

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.

FIBERFRAX RIGIFORM SHAPES AND BOARDS

Fiberfrax Rigiform shapes and boards contain a small percentage of organic binder plus inorganic hardening agents, resulting in products that display uniform hardness and density as well as exceptional handling strength. Our in-house machining facilities allow for precise finishing of shapes to customer requirements. 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 between 800°C to 1200°C. The following table summarises the special grades that are available.

Code	Special Grade
SH	Surface Hardening
DH	Deep Hardening
F	Pre-fired
CO	Coating
WR	Water Repellent
SO	Soft
XD	Extra Density



TYPICAL PRODUCT PARAMETERS

Fiberfrax Rigiform	120	120HD	120XD	140	140HD
Typical Chemical Analysis (wt. %) +/- 10%					
SiO ₂	55.0	35.0	24.0	48.0	33.0
Al ₂ O ₃ (+ ZrO ₂ [#])	45.0	64.0	75.0	52.0 [#]	66.0 [#]
Physical Properties					
Colour	White to Tan	White to Tan	White to Tan	White to Tan	White to Tan
Product Density (kg/m ³) ⁺	<350	350 - 500	>500	<350	350 - 500
Use Limit (°C) [*]	1200	1200	1200	1400	1400
Loss on ignition (wt.%)	<6.0	<6.0	<6.0	<6.0	<6.0
Thermal Conductivity (W/mK)					
Mean Temp.					
400 °C	0.08	-	-	0.09	-
600 °C	0.12	0.18	0.20	0.12	0.20
800 °C	0.15	0.22	0.25	0.16	0.25
1000 °C	0.20	0.25	0.30	0.22	0.30
1200 °C	-	0.32	0.35	-	0.35
Permanent Linear Shrinkage (%) 24 Hour Soak					
1000 °C	2.1	1.8	1.5	1.5	1.3
1100 °C	2.7	2.5	2.3	1.9	1.8
1200 °C	3.2	3.0	3.0	2.3	2.1
1300 °C	-	-	3.5	3.8	2.5

^{*}Use limit refers to the maximum short term temperature limit. The maximum continuous use limit for these products depends upon application conditions. For certain applications continuous use 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.

[#]Contains ZrO₂ / ZrO₂free formulations available.

AVAILABILITY

Fiberfrax Rigiform shapes and boards are engineered to specific customer requirements and are therefore made to order. Please contact your local Unifrax sales office to discuss your particular requirements.

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: