

FIBERFRAX® GC90

Fiberfrax GC90 is an insulating refractory material made from Fiberfrax ceramic fibres and designed specifically for use in non-ferrous applications. Fiberfrax GC90 can be cast into complex shapes with sections as thin as 20mm and up to a maximum 1000mm in length. A combination of excellent thermal insulation, non-wetting by non-ferrous metals and thermal shock resistance makes Fiberfrax GC90 the ideal material for non-ferrous metal transfer applications.

General Characteristics

Fiberfrax GC90 has the following benefits

- High temperature stability
- Low thermal conductivity
- Low heat capacity
- Resists thermal shock
- Not wetted by molten aluminium
- Excellent corrosion resistance

Physical Properties

Colour	White
Classification Temperature	1100°C
Melting Point	1760°C
Density	1300 kg/m ³
Modulus of Rupture	
@ 400°C	34.5 x 10 ⁵ N/m ²
@ 800°C	41.1 x 10 ⁵ N/m ²
@ 1200°C	38.6 x 10 ⁵ N/m ²
Shrinkage	
@ 400°C	0.05%
@ 800°C	0.15%
@ 1200°C	6.80%

Typical Applications

- Aluminium transfer launders and casting table launder systems
- Aluminium crucible pouring spouts
- Port plugs in holding furnaces



Chemical Resistance

Fiberfrax GC90 exhibits excellent chemical stability resisting attack by most corrosive agents, with the exception of hydrofluoric and phosphoric acids and concentrated alkalis. Fiberfrax GC90 also resists oxidation and reduction. If wet by water, steam or oil, thermal and physical properties are completely restored upon drying.

Thermal Conductivity Data (W/mK)

400°C Mean Temp	0.18 W/mK
800°C Mean Temp	0.25 W/mK
1200°C Mean Temp	0.29 W/mK

Availability

- Standard launder profiles are available, with length up to 1000mm
- All other shapes are designed and manufactured to customer requirements

Data are average results conducted under standard procedures and are subject to variation. Results should not be used for specification purposes.