Refractory Materials

Linings for kilns, furnaces and high-temperature plant

Refractory materials for high-temperature industrial applications, including spinel bricks. We supply shaped and unshaped refractories - magnesia spinel, high-alumina and fireclay brick, castables, mortars and insulation - selected against the service temperature, atmosphere and chemical attack in your kiln, furnace or boiler.



Stock status: Project supply - Typical lead time: Standard shapes 3 - 5 weeks; specials and castables quoted on enquiry

Key features

- Product class selected against service temperature, atmosphere and chemical attack
- Chrome-free magnesia spinel for cement kiln burning zones
- Shaped brick to ISO kiln shapes plus specials cut to drawing
- Installation data sheets, heat-up curves and quantity take-off support

Types & configurations

Type	Specification
Magnesia spinel bricks	Cement rotary kiln burning and transition zones, chrome-free, high thermal shock resistance
High-alumina bricks	60% / 70% / 80% Al?O?, kiln inlet, preheater and furnace linings
Fireclay & insulating bricks	Back-up linings and insulating courses, low thermal conductivity grades
Dense & low-cement castables	Burner pipes, kiln hoods, cooler roofs, ladle and launder linings, pumpable and gunning mixes
Mortars, ramming & gunning mixes	Jointing mortars, plastic ramming masses and gunning mixes for repair work
Ceramic fibre & insulation	Blanket, board and module for hot-face insulation and expansion joints

Specifications

Property	Value
Service temperature	Up to 1700 degC depending on the product class
Magnesia spinel	MgO 90 - 95%, Al?O? 5 - 10%, chrome-free, cold crushing strength 45 - 70 N/mm²
High alumina	Al?O? 60 - 80%, apparent porosity 16 - 20%, refractoriness under load > 1450 degC
Castables	Dense, low-cement and ultra-low-cement grades, max grain 3 - 6 mm, installation by casting, pumping or gunning
Shapes	Standard ISO kiln shapes, arch and wedge brick, and special shapes cut to drawing

Standards

ISO 5417 shapes, ASTM C133 cold crushing strength, ASTM C20 porosity and density, ISO 1893 refractoriness under load, EN 993 series test methods

Industries served

Cement, Mining, Mineral Processing, Steel & Foundry, Glass & Lime, Power, Petrochemical, Waste to Energy

Typical applications

- Cement rotary kiln burning, transition and inlet zones
- Preheater towers, kiln hoods and clinker coolers
- Steel ladles, tundishes and reheating furnaces
- Lime and glass kilns
- Boiler and incinerator linings
- Petrochemical heaters and flare stacks