DGC REFRACTORIES TECHNICAL DATA SHEET

HIGH ALUMINA BRICK (HA-75)

RELIABLE PERFORMANCE IN GENERAL-PURPOSE & INTERMEDIATE-TEMPERATURE APPLICATIONS

The High Alumina Brick (HA-75) is a robust, versatile refractory product containing **approximately 75% Al_2O_3,** offering a good balance of **thermal resistance, mechanical strength, and chemical durability.** It is ideal for applications requiring consistent performance across a broad temperature range and is widely used in both ferrous and non-ferrous metallurgy, cement kilns, and combustion chambers.

TECHNICAL SPECIFICATIONS

PROPERTY	HA-75
Al_2O_3 (%)	≥ 75
Apparent Porosity (%)	≤ 22
Bulk Density (g/cm³)	≥ 2.55
Cold Crushing Strength (MPa)	≥ 65
Modulus of Rupture at 1400°C (MPa)	≥ 8
Refractoriness Under Load (0.2 MPa, °C)	≥ 1500
Thermal Conductivity at 1000°C (W/m·K)	2.0 – 2.4
Maximum Service Temperature (°C)	1650
Bond Type	Mullite-based ceramic bond

KEY APPLICATIONS

- Aluminium and Copper Holding Furnaces
- Secondary Metal Processing Units
- Rotary Kiln Roofs and Burner Zones
- Lime and Cement Kilns
- Tundishes and Ladles
- Incinerators and Combustion Chambers

PERFORMANCE CHARACTERISTICS

- Good resistance to **thermal spalling & mechanical wear**
- Stable under r**educing and oxidizing conditions**
- Compatible with a range of **slag chemistries**
- Effective for **backup linings,** burner surrounds, and working linings in non-ferrous furnaces

PACKAGING & SUPPLY

- Delivered in export-grade wooden pallets with clear labelling
- Shape options include standard straight bricks, wedges, arch blocks, and custom formats
- Each pallet includes test certificate and product traceability documentation

INSTALLATION NOTES

- Lay with suitable high-alumina mortar
- Avoid over-tight packing to accom modate thermal expansion
- Preheat carefully during initial furnace start-up

ENVIRONMENTAL & SAFETY NOTES

- Manufactured in ISO 9001 and ISO 14001 certified facilities
- Contains no asbestos or hazardous additives
- Long service life contributes to reduced waste and energy savings

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