

MAGNESIA-ALUMINA BRICK (MA-75)

ROBUST BASIC REFRACTORY FOR PYROMETALLURGICAL & HIGH-TEMPERATURE ROTARY APPLICATIONS

The Magnesia-Alumina Brick (MA-75) is a chemically bonded basic refractory product manufactured with **high-purity sintered magnesia and reactive alumina**. Engineered to perform in **kilns, furnaces, and rotary units** that operate under fluctuating thermal cycles and moderate slag attack, the MA-75 provides a balance of corrosion resistance, mechanical strength, and cost-effectiveness.

Its formulation is optimised for use in **non-ferrous, cement, and ferronickel operations** where temperature resistance and compatibility with alkali or acidic environments are key.

KEY APPLICATIONS

- **Rotary Kilns** – Cement, alumina, nickel calcining
- **Secondary Smelting Units** – Lead and copper metallurgy
- **Electric Arc Furnace Roofs & Lining** – Hybrid linings
- **Preheating and Transition Zones** – In combination with spinel or chrome products
- **Air- and Oxygen-Fired Furnaces** – Where basic-acidic fluctuations occur

PERFORMANCE CHARACTERISTICS

- **Balanced Composition:** Provides thermal resistance with improved corrosion tolerance in variable slag environments.
- **Thermal Shock Resistance:** Well-suited for transition zones in rotary processes.
- **Good Alkali Resistance:** Compatible with atmospheres rich in Na₂O and K₂O vapours.
- **Stable Thermal Expansion:** Minimises structural stress and cracking.
- **Reliable Service Life:** Offers strong economic performance for medium-intensity duty cycles.

TECHNICAL SPECIFICATIONS

PROPERTY	MA-75
MgO (Magnesia)	≥ 75%
Al ₂ O ₃ (Alumina)	≥ 15%
Apparent Porosity	≤ 18%
Bulk Density	≥ 2.85 g/cm ³
Cold Crushing Strength (CCS)	≥ 60 MPa
Refractoriness Under Load	≥ 1650 °C @ 0.2 MPa
Thermal Conductivity (1000°C)	3.8–4.5 W/m·K

INSTALLATION & HANDLING

- Recommended for dry or mortar-based installations using magnesia-compatible binders.
- Avoid prolonged moisture exposure prior to installation.
- Handle with care to maintain edge integrity and surface finish.

QUALITY & COMPLIANCE

- Manufactured under ISO-compliant quality systems with full traceability.
- Available in standard and custom dimensions for tailored furnace geometries.
- Third-party quality inspections and performance validations available on request.



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