

FOR HIGH-TEMPERATURE, CORROSIVE ENVIRONMENTS IN NON-FERROUS, CEMENT, AND THERMAL INDUSTRIES

The **Magnesia Brick (MGe-98A / MGe-98B)** is a premium-quality, direct-sintered refractory material manufactured using high-purity fused magnesia. Designed to withstand extreme operating temperatures and corrosive slag environments, this brick offers outstanding structural integrity in high-temperature industrial applications. Widely used in rotary kilns, non-ferrous metal smelters, converters, regenerators, and high-temperature shaft kilns, the MGe-98 series is engineered to deliver superior thermal conductivity, excellent volume stability, and resistance to basic slag attack.

TECHNICAL SPECIFICATIONS

PROPERTY	MGe-98A	MGe-98B
MgO (Magnesia)	≥ 98.0%	≥ 98.0%
Fe ₂ O ₃ (Iron Oxide)	≤ 0.8%	≤ 1.0%
CaO (Calcium Oxide)	≤ 1.0%	≤ 1.5%
Apparent Porosity	≤ 16%	≤ 18%
Bulk Density	≥ 3.10 g/cm ³	≥ 3.05 g/cm ³
Cold Crushing Strength (CCS)	≥ 60 MPa	≥ 50 MPa
Refractoriness Under Load	≥ 1700 °C @ 0.2 MPa	≥ 1700 °C @ 0.2 MPa
Thermal Conductivity (1000°C)	5.5–6.0 W/m·K	5.0–5.5 W/m·K

INSTALLATION & HANDLING

- Can be installed by dry setting or using compatible high-temperature bonding mortars (if required).
- Bricks should be stored in dry conditions and handled with care to avoid edge chipping.
- Recommended for use with appropriate insulation backing materials to improve thermal gradient control.

QUALITY & COMPLIANCE

- Manufactured under ISO 9001:2015 certified processes.
- Subjected to full chemical and physical testing for batch quality assurance.
- Supplied with QA/QC traceability and technical documentation upon request.

KEY APPLICATIONS

- **Cement Rotary Kilns** – Upper and burning zones
- **Non-Ferrous Smelting Furnaces** – Sidewalls, linings
- **Thermal Power Plants** – Boilers and regenerators
- **Glass Furnaces** – Transition zones
- **Shaft Kilns and Lime Kilns**

PERFORMANCE CHARACTERISTICS

- **High Refractoriness:** Performs reliably under extreme temperatures.
- **Excellent Slag Resistance:** Withstands basic slags in metallurgical environments.
- **Volume Stability:** Low linear change under load prevents structural deformation.
- **Strong Mechanical Strength:** Maintains integrity under thermal cycling and mechanical load.
- **Good Thermal Conductivity:** Supports energy efficiency in heat-intensive zones.



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