

MAGNESIA HERCYNITE BRICK (MH-92)

HIGH THERMAL SHOCK RESISTANCE & VOLUME STABILITY FOR ROTARY KILNS & METALLURGICAL FURNACES

The Magnesia Hercynite Brick MH-92 is a next-generation refractory product combining high-purity **fused magnesia with synthetic hercynite (FeAl_2O_4)** spinel. Engineered for **exceptional thermal shock resistance, volume stability, and slag corrosion resistance**, this brick is widely used in cement rotary kilns, non-ferrous metallurgy, and hazardous waste incineration.

TECHNICAL SPECIFICATIONS

PROPERTY	MH-92
MgO (%)	≥ 88
FeAl_2O_4 (Hercynite) (%)	≥ 6
Apparent Porosity (%)	≤ 18
Bulk Density (g/cm^3)	≥ 2.95
Cold Crushing Strength (MPa)	≥ 80
Modulus of Rupture at 1400°C (MPa)	≥ 10
Refractoriness Under Load (0.2 MPa, °C)	≥ 1700
Thermal Conductivity at 1000°C ($\text{W/m}\cdot\text{K}$)	2.0 – 2.4
Permanent Linear Change (PLC, 1500°C × 3h)	±0.3 %
Maximum Service Temperature (°C)	1750
Bond Type	Direct-Bonded Hercynite Spinel

PACKAGING & SUPPLY

- Supplied in dense export packaging with full batch traceability
- Customisable shapes and arch-set configurations available
- Each batch undergoes **100% dimensional & density verification**

INSTALLATION NOTES

- Install with compatible spinel/ magnesia mortar
- Ensure even pressure distribution during setting
- Recommended for combination linings in tandem with direct-bonded magnesia bricks

KEY APPLICATIONS

- Cement Rotary Kilns (Transition & Burning Zones)
- Secondary Smelting Furnaces
- Non-Ferrous Metallurgical Kilns
- Thermal Waste Processing Units
- Lime and Dolomite Shaft Kilns

PERFORMANCE CHARACTERISTICS

- Excellent **resistance to thermal cycling**
- Minimal structural deformation under long campaigns
- High mechanical strength **and alkali resistance**
- Particularly suited for zones prone to **coating instability or mechanical stress**



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ENVIRONMENTAL & SAFETY NOTES

- Chromium-free formulation, safe for **incineration and cement applications**
- Supports lower carbon emissions due to improved thermal efficiency
- No hazardous constituents or environmental emissions during use