

SIC-MULLITE (ANDALUSITE) BRICK (SM-70A)

SiC-Mullite (Andalusite) Brick SM-70A is a high-performance refractory brick combining the benefits of silicon carbide, mullite, and andalusite to deliver exceptional thermal conductivity, abrasion resistance, and alkali resistance. This brick is ideally suited for harsh process environments where mechanical wear and alkali corrosion are prevalent.

TECHNICAL SPECIFICATIONS

PROPERTY	VALUE
Al ₂ O ₃ (%)	≥ 60
SiC (%)	≥ 20
Apparent Porosity (%)	≤ 17
Bulk Density (g/cm ³)	≥ 2.55
Cold Crushing Strength (MPa)	≥ 65
Refractoriness Under Load (0.2 MPa, °C)	≥ 1500
Thermal Shock Resistance (cycles at 950°C water quench)	≥ 25

KEY FEATURES

- High resistance to abrasion and slag corrosion
- Excellent alkali and sulphur attack resistance
- Enhanced thermal conductivity for energy efficiency
- Outstanding thermal shock performance

APPLICATION AREAS

- Cement kiln front ends and riser ducts
- Cyclones and preheaters in alkali-rich processes
- Waste-to-energy and biomass combustion units
- Metallurgical reactors with slag-laden environments

INSTALLATION NOTES

- Install with SiC-compatible mortar for optimal bonding
- Ensure minimal contact with steel to prevent reactive wear
- Dry-out procedures must be followed to remove bound moisture before heating



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contactus@dgc-africa.com