

CCREFRACTORIES TECHNICAL OVERVIEW

ALUMINA-BASED BRICKS

Alumina-based refractories are among the most widely used materials across high-temperature industrial processes due to their excellent thermal shock resistance, mechanical strength, and chemical stability. DGC Refractories offers a complete range of high alumina bricks tailored to the demands of the cement, steel, non-ferrous, glass, and thermal power industries.

HIGH ALUMINA BRICK (HA-75)

The HA-75 grade is composed of 75% alumina, providing strong resistance to alkali corrosion and moderate slag attack. It is ideal for applications such as cement rotary kilns, lime shafts, and incinerator linings where consistent mechanical performance and thermal insulation are required. It strikes an effective balance between performance and cost for general high-temperature zones.

HIGH ALUMINA BRICK (HA-80)

With an alumina content of 80%, this brick delivers increased refractoriness and compressive strength. It is often used in higher-wear zones such as burner pipes, transition zones in rotary kilns, and upper stacks of furnaces. The HA-80 offers improved thermal cycling durability, making it suitable for processes that require frequent heating and cooling.

ANTI-SPALLING HIGH ALUMINA BRICK (ASHA-75)

The ASHA-75 brick is engineered with special additives to mitigate structural damage from rapid thermal cycling. It offers superior spalling resistance and retains integrity during abrupt temperature changes, reducing the risk of lining failure. It is especially suited for cement kiln hoods, cooler zones, and regenerators in the glass industry.

ANDALUSITE-MULLITE BRICK (AM-65)

This brick is formulated using andalusite aggregate that transforms into mullite during firing, enhancing its resistance to thermal shock and structural stress. With an alumina content of approximately 65%, AM-65 bricks are widely used in furnace roofs, checker walls, and burner blocks where cyclic thermal loads are common.

MULTILAYER MULLITE BRICK (MM-65)

This engineered brick features a layered structure designed to optimise thermal insulation and mechanical strength. The multilayer design enhances resistance to spalling and thermal cycling, making it suitable for lining furnace roofs, regenerators, and preheater zones. The MM-65 balances energy efficiency with durability, reducing energy loss while maintaining a robust structural envelope.

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