

FIRE BRICK SK-38

Dense High-Alumina Refractory Brick

1. PRODUCT DESCRIPTION

Fire Brick SK-38 is a fired refractory brick for high-temperature industrial lining applications where higher thermal resistance is required. It is intended for compatible furnace, kiln and heating equipment zones where service conditions are within the recommended operating range. Final selection should consider temperature, thermal cycling, mechanical load, atmosphere, abrasion, chemical exposure and lining design.

2. KEY PERFORMANCE

Property	Typical / Recommended Value
Recommended service temperature	Up to approx. 1,600°C*

*Service temperature is application-dependent. Actual safe operating temperature can be lower depending on load, atmosphere, thermal cycling, abrasion, chemical attack and lining design.

3. TYPICAL CHEMICAL ANALYSIS

Component	Typical wt. %
Al ₂ O ₃	64 – 70
SiO ₂	21 – 27
Fe ₂ O ₃	2.0 – 3.2
TiO ₂	2.2 - 3.2

Indicative chemical values for product reference; not contractual or batch-specific limits.

4. TYPICAL PHYSICAL & MECHANICAL PROPERTIES

Property	Typical value / range
Bulk Density	2.30 - 2.45 g/cm ³
Apparent Porosity	19 - 23 %
Water Absorption	8 - 11 %
Cold Crushing Strength (CCS)	220 - 250 kgf/cm ²
Modulus of Rupture (MOR)	115 - 130 kgf/cm ²

Typical values may vary with production batch, brick size and test condition (CCS: 50 mm cube specimens cut from fired brick; MOR: three-point bending, 200 mm span). CCS and MOR are cold-strength properties and are not a measure of strength at operating temperature.

5. TYPICAL APPLICATIONS

Application	Typical use
Industrial furnaces	High-temperature refractory lining zones subject to operating conditions and lining design
Kilns and heating equipment	Refractory lining in compatible high-temperature thermal zones
Incinerators / thermal treatment equipment	Selected high-temperature zones where chemical and thermal conditions are suitable
Combustion / process heaters	High-temperature refractory areas depending on atmosphere and operating cycle

NOTE

The information in this TDS is provided as a general product guide. Typical values may vary with production batch and test conditions. Final product selection and lining design remain the responsibility of the user based on actual operating conditions.