



TDS - Brown Firebricks

1. Chemical Composition

Na ₂ O	MgO	Al ₂ O ₃	SiO ₂	SO ₃	K ₂ O	CaO	TiO ₂	MnO	Fe ₂ O ₃	NiO	CuO
1,1	1,5	16,0	53,1	0,6	4,0	2,1	1,4	6,1	11,8	1,2	1,2

2. Physical & Mechanical Properties

Apparent Density:	1.94 g/cm ³
Real Density:	2.67 g/cm ³
Open Porosity:	27.24 % p.v.
Water Absorption:	14.02 % p.w.
Cold Crushing Strength	17.45 Mpa
Flexural Strength (M.O.R)	2.61 Mpa

3. Thermal Properties

Refractoriness:	>1100°C
Permanent Linear Change:	<1%
Thermal Conductivity @ 200°C:	0.88 W/m·K
Thermal Conductivity @ 400°C:	0.90 W/m·K
Heat Capacity:	0.74 J/g·K
Thermal Diffusivity @ 200°C	6.1·10 ⁻⁷ m/s
Thermal Diffusivity @ 300°C	6.3·10 ⁻⁷ m/s