Issue: 1th November 2014

TDS - Black Firebricks

1. Chemical Composition

Na_2O	MgO	Al_2O_3	SiO_2	SO_3	K_2O	CaO	TiO_2	MnO	Fe_2O_3	NiO	CuO	C
0,5	1,2	11,4	45,3	1,8	3,0	17,9	0,7	8,7	8,2	0,6	0,5	0,4

2. Physical & Mechanical Properties

Apparent Density:	2.07 g/cm^3
Real Density:	2.86 g/cm^3
Open Porosity:	27.41 % p.v.
Water Absorption:	13.45 % p.w.
Cold Crushing Strength	38.44 Mpa
Flexural Strength (M.O.R)	9.53 Mpa

3. Thermal Properties

Refractoriness:	>1100°C
Permanent Linear Change:	<1%
Thermal Conductivity @ 200°C:	1.15 W/m·K
Thermal Conductivity @ 400°C:	1.04 W/m·K
Heat Capacity:	0.76 J/g·K
Thermal Diffusivity @ 200°C	$7.7 \cdot 10^{-7}$ m/s
Thermal Diffusivity @ 300°C	$7.0 \cdot 10^{-7}$ m/s