

# HIGH TEMPERATURE CASTABLE

## Product Data

Ref:33/11/06/13

Description: High Temperature Castable is a dense hydraulic bonded castable for use to 1650°C.

Features: ● It resists vetrification and exhibits excellent resistance to spalling throughout its temperature range.

Uses: ● Suitable for use where slagging is a problem.

### Chemical Analysis: Approximate (Calcined Basis)

Silica - SiO <sub>2</sub>	24.0%
Alumina - Al <sub>2</sub> O <sub>3</sub>	68.9%
Titania - TiO <sub>2</sub>	1.9%
Iron Oxide - Fe <sub>2</sub> O <sub>3</sub>	1.2%
Lime - CaO	3.5%
Magnesia - MgO	0.1%
Alkalies - Na <sub>2</sub> O + K <sub>2</sub> O	0.4%

### Physical Properties

Maximum Recommended Temperature	1650°C
Quantity Required	2210 Kgs/m <sup>3</sup>
Water required for mixing per 100 Kgs	10.0 - 13.0 Litres Approximately
Bulk Density	Kgs/m <sup>3</sup>
After Heating at 105°C	2200 - 2350
After Heating at 815°C	2160 - 2240
Modulus of Rupture - ASTM C133 and C865	MPa
After Heating at 105°C	5.17
After Heating at 815°C	3.45
After Heating at 1095°C	2.41
After Heating at 1370°C	4.83
Cold Crushing Strength - ASTM C133 and C865	MPa
After Heating at 105°C	20.68
After Heating at 815°C	13.79
After Heating at 1095°C	12.07
After Heating at 1370°C	27.58
Permanent Linear Change - ASTM C113 and C865	
After Heating at 105°C	<0.05% Shr
After Heating at 815°C	0 - 0.2% Shr
After Heating at 1095°C	0 - 0.2% Shr
After Heating at 1370°C	0 - 0.5% Exp
After Heating at 1600°C	0.5 - 1.5% Exp
Thermal Conductivity	W/mK
At 205°C	1.12
At 425°C	1.11
At 650°C	1.10
At 870°C	1.08
At 1095°C	1.07
At 1315°C	1.05
Shelf Life (Under Proper Storage Conditions)	365 days

Note: The test data shown are based on average results of control tests and are subject to normal variation on individual tests. These results cannot be taken as maximum or minimum requirements for specification purposes.

MSDS, Installation Guidelines and Dry Out Schedules are also available.