

# VERSAFLOW<sup>®</sup> 65/AL PLUS

## Product Data

Ref:216/31/10/12

### Description: 65% Alumina low cement castable

- Features:
- Designed specifically for aluminium metal contact applications.
  - Contains aluminium inhibitor for increased metal penetration resistance.
  - Has high hot strength at 815°C.
  - Can be vibration cast, conventionally cast, or pumped with slight adjustment to water content.

- Uses:
- Metal contact applications including aluminium furnace hearths, ramps, sidewalls, door sills / jambs, troughs and transport crucibles, diecast furnaces.

### Chemical Analysis: Approximate (Calcined Basis)

Silica - SiO <sub>2</sub>	29.7%
Alumina - Al <sub>2</sub> O <sub>3</sub>	63.5%
Titania - TiO <sub>2</sub>	2.0%
Iron Oxide - Fe <sub>2</sub> O <sub>3</sub>	0.9%
Lime - CaO	3.6%
Magnesia - MgO	0.1%
Alkalies - Na <sub>2</sub> O + K <sub>2</sub> O	0.2%

### Physical Properties

	Vibration Cast
Maximum Recommended Temperature	1427°C
Quantity Required	2483 Kgs/m <sup>3</sup>
Water required for mixing per 100 Kgs	5.0 - 5.5 Litres Approximately
Bulk Density	Kgs/m <sup>3</sup>
After Heating at 105°C	2500 - 2600
After Heating at 815°C	2450 - 2500
After Heating at 1095°C	2450 - 2500
Modulus of Rupture - ASTM C133 and C865	MPa
After Heating at 105°C	10.0 - 14.0
After Heating at 815°C	15.0 - 20.0
After Heating at 1095°C	20.0 - 25.0
Hot Modulus of Rupture	MPa
At 815°C	24.1
Cold Crushing Strength - ASTM C133 and C865	MPa
After Heating at 105°C	80.0 - 105.0
After Heating at 815°C	70.0 - 90.0
After Heating at 1095°C	75.0 - 95.0
Permanent Linear Change - ASTM C113 and C865	
After Heating at 105°C	None
After Heating at 815°C	0 - 0.15% Shr
After Heating at 1095°C	0 - 0.3% Shr
Thermal Conductivity	W/mK
At 200°C	1.88
At 400°C	1.66
At 600°C	1.61
At 800°C	1.67
At 1000°C	1.79
Shelf Life (Under Proper Storage Conditions)	180 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.