

# ARMORKAST 65AL

## Product Data

Ref:246/31/10/12

**Description:** 65% Alumina low cement dense castable.

- Features:**
- Non wetting to Aluminium Metal.
  - Can be vibrocast or pumped into place.

- Uses:**
- Aluminium furnace hearths, ramps and sidewalls.
  - Launderers or troughs, ladles and crucibles for molten aluminum contact.

### Chemical Analysis: Approximate (Calcined Basis)

Silica - SiO <sub>2</sub>	29.0%
Alumina - Al <sub>2</sub> O <sub>3</sub>	61.0%
Titania - TiO <sub>2</sub>	1.8%
Iron Oxide - Fe <sub>2</sub> O <sub>3</sub>	0.8%
Lime - CaO	1.5%
Magnesia - MgO	0.1%
Alkalies - Na <sub>2</sub> O + K <sub>2</sub> O	0.2%
Others	5.6%

### Physical Properties

	Vibration Cast
Maximum Recommended Temperature	1760°C
Maximum Aluminium-Resistant Recommended Temperature	1200°C
Quantity Required	2550Kgs/m <sup>3</sup>
Water required for mixing per 100 Kgs	4.6 - 5.4 Litres Approximately
Bulk Density	Kgs/m <sup>3</sup>
After Heating at 105°C	2500 - 2650
After Heating at 815°C	2450 - 2600
Modulus of Rupture - ASTM C133 and C865	MPa
After Heating at 105°C	7.0 - 15.0
After Heating at 815°C	8.0 - 16.0
After Heating at 1095°C	12.0 - 20.0
Hot Modulus of Rupture	MPa
At 815°C	22.1
Cold Crushing Strength - ASTM C133 and C865	MPa
After Heating at 105°C	60.0 - 95.0
After Heating at 815°C	60.0 - 95.0
After Heating at 1095°C	70.0 - 105.0
Permanent Linear Change - ASTM C113 and C865	
After Heating at 815°C	0.0 - 0.2% Shr
After Heating at 1095°C	0.0 - 0.4% Shr
Abrasion Loss - ASTM C704	cc
After Heating at 815°C	13.5
Apparent Porosity	
After Heating at 815°C	16.2%
Thermal Conductivity	W/mK
At 200°C	1.61
At 400°C	1.66
At 600°C	1.73
At 800°C	1.80
At 1000°C	1.85
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.