

Product Data

Ref: 214/31/10/12

Description: 86% alumina, ultra-low cement, vibrating castable.

- Features:
- High-purity alumina based.
 - High hot strength for resistance to hot load deformation and hot abrasion.
 - Maximum operating temperature is 1870°C.
 - Addition of andalusite provides thermal shock resistance superior to conventional ultra-low cement tabular alumina castables.

- Uses:
- Immersion lances for molten steel refining.
 - Impingement pads.
 - Electric furnace roofs.
 - High temperature incinerator linings.
 - Burner pipes.
 - Nose rings.

Chemical Analysis: Approximate (Calcined Basis)

| | |
|---|-------|
| Silica - SiO ₂ | 13.2% |
| Alumina - Al ₂ O ₃ | 85.8% |
| Titania - TiO ₂ | 0.1% |
| Iron Oxide - Fe ₂ O ₃ | 0.1% |
| Lime - CaO | 0.5% |
| Magnesia - MgO | 0.1% |
| Alkalies - Na ₂ O + K ₂ O | 0.3% |

Physical Properties

| | Vibration Cast |
|--|--------------------------------|
| Maximum Recommended Temperature | 1870°C |
| Quantity Required | 2880 Kgs/m ³ |
| Water required for mixing per 100 Kgs | 4.0 - 5.0 Litres Approximately |
| Bulk Density | Kgs/m ³ |
| After Heating at 105°C | 2800 - 2950 |
| After Heating at 815°C | 2800 - 2900 |
| Modulus of Rupture - ASTM C133 and C865 | MPa |
| After Heating at 105°C | 9.0 - 13.0 |
| After Heating at 815°C | 10.0 - 20.0 |
| After Heating at 1095°C | 15.0 - 25.0 |
| After Heating at 1370°C | 10.0 - 20.0 |
| After Heating at 1600°C | 8.0 - 16.0 |
| Cold Crushing Strength - ASTM C133 and C865 | MPa |
| After Heating at 105°C | 50.0 - 70.0 |
| After Heating at 815°C | 55.0 - 75.0 |
| After Heating at 1095°C | 70.0 - 90.0 |
| After Heating at 1370°C | 70.0 - 90.0 |
| After Heating at 1600°C | 40.0 - 60.0 |
| Permanent Linear Change - ASTM C113 and C865 | |
| After Heating at 105°C | Nil |
| After Heating at 815°C | 0.1% Shr |
| After Heating at 1095°C | 0.3% Shr |
| After Heating at 1370°C | 0.1% Shr |
| After Heating at 1600°C | 0.5% Exp |
| After Heating at 1760°C | 1.5% Exp |
| Thermal Conductivity | W/mK |
| At 205°C | 2.80 |
| At 425°C | 2.58 |
| At 650°C | 2.42 |
| At 870°C | 2.47 |
| At 1095°C | 2.61 |
| At 1315°C | 2.60 |

Shelf Life (Under Proper Storage Conditions)

120 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.