

ULTRA-GREEN® 80 AL



Product Data

Ref:61/31/10/12

Description: 80% Alumina, vibratable ultra low cement castable.

- Features:
- Very high strength.
 - High hot load bearing ability.
 - Low porosity and high density.
 - Resistance to corrosion by molten aluminium.

- Uses:
- Specially designed for the severest aluminium contact applications.

Chemical Analysis: Approximate (Calcined Basis)

Silica - SiO ₂	13.0%
Alumina - Al ₂ O ₃	82.5%
Titania - TiO ₂	2.4%
Iron Oxide - Fe ₂ O ₃	1.0%
Lime - CaO	1.1%
Magnesia - MgO	0.1%
Alkalies - Na ₂ O + K ₂ O	0.1%
Barium - BaO	5.9%

Physical Properties

	Vibration Cast
Maximum Recommended Temperature	1650°C
Quantity Required	2740 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	2700 - 2890
After Heating at 815°C	2720 - 2800
Modulus of Rupture - ASTM C133 and C865	MPa
After Heating at 105°C	6.0 - 13.0
After Heating at 815°C	10.0 - 17.0
After Heating at 1095°C	10.0 - 17.0
After Heating at 1370°C	9.0 - 14.0
Cold Crushing Strength - ASTM C133 and C865	MPa
After Heating at 105°C	65.0 - 105.0
After Heating at 815°C	85.0 - 105.0
After Heating at 1095°C	85.0 - 105.0
After Heating at 1370°C	85.0 - 95.0
Permanent Linear Change - ASTM C113 and C865	Up to
After Heating at 105°C	< -0.5%
After Heating at 815°C	-0.4%
After Heating at 1095°C	-0.5%
After Heating at 1370°C	-0.5%
Thermal Conductivity	W/mK
At 205°C	2.06
At 425°C	2.06
At 650°C	2.09
At 870°C	2.13
At 1095°C	2.21
At 1315°C	2.31

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.