

VERSAFLOW[®] 45 PLUS

Product Data

Ref: 222/31/10/12

Description: Fireclay based low cement castable for use in high abrasion environments up to 1480°C.

- Features:**
- Good volume stability resulting in less shrinkage cracking in service.
 - Better abrasion resistance than conventional extra-strength castables or fireclay plastics.
 - Easy to install by vibration casting and conventional casting techniques; can be pumped for large installations.

- Uses:**
- Iron and Steel Foundries - Reheat furnaces, forge furnace car decks.
 - Minerals Processing Rotary Kilns - Lifters, feed-end and chain sections, cooler walls.
 - Chemical Processing Industry - Boiler applications, incineration (ash hoppers).
 - Aluminium - Flue caps, precast shapes for carbon bake furnaces, subhearths and lower sidewall back-up castable.

Chemical Analysis: Approximate (Calcined Basis)

Silica - SiO ₂	50.1%
Alumina - Al ₂ O ₃	45.4%
Titania - TiO ₂	1.1%
Iron Oxide - Fe ₂ O ₃	1.0%
Lime - CaO	1.7%
Magnesia - MgO	0.1%
Alkalies - Na ₂ O + K ₂ O	0.1%

Physical Properties

	Vibration Cast
Maximum Recommended Temperature	1480°C
Quantity Required	2200 Kgs/m ³
Water required for mixing per 100 Kgs	6.0 - 7.0 Litres Approximately
Bulk Density	Kgs/m ³
After Heating at 105°C	2180 - 2280
After Heating at 815°C	2150 - 2250
Modulus of Rupture - ASTM C133 and C865	MPa
After Heating at 105°C	7.0 - 11.0
After Heating at 815°C	8.0 - 12.0
After Heating at 1095°C	9.0 - 15.0
Cold Crushing Strength - ASTM C133 and C865	MPa
After Heating at 105°C	50.0 - 70.0
After Heating at 815°C	40.0 - 60.0
After Heating at 1095°C	50.0 - 70.0
Permanent Linear Change - ASTM C113 and C865	
After Heating at 815°C	0.1% Shr
After Heating at 1371°C	0.4% Shr
Thermal Conductivity	W/mK
At 200°C	1.34
At 400°C	1.39
At 600°C	1.46
At 800°C	1.54
At 1000°C	1.65
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.