GREENCAST ® 94

Product Data

Ref:27/31/10/12

Description: High-Alumina, Low-Silica Castable for Severe Abrasion.

Features:
- Fine grained.
- Outstanding abrasion resistance from dust erosion, rubbing, and heavy impact.
- High temperature resistance for hydrogen service.

Uses:
- Lining areas subjected to rubbing, grinding, or high-velocity, dust-laden gases.
- Hydrogen transfer lines and secondary ammonia reformer linings.
- High temperature burner blocks and high temperature thermal combustors.
- Waste heat boiler high temperature boiler inlets.
- Upper case sections of copper and iron vertical channel induction units.

Chemical Analysis: Approximate (Calcined Basis)	
Silica - SiO_2	0.1%
Alumina - Al_2O_3	94.3%
Iron Oxide - Fe_2O_3	0.1%
Lime - CaO	5.0%
Magnesia - MgO	0.1%
Alkalies - $Na_2O + K_2O$	0.4%

Physical Properties	Vibration Cast
Maximum Recommended Temperature	1870°C
Quantity Required	2500 Kgs/m^3
Water required for mixing per 100 Kgs	9.5 - 12.0 Litres Approximately
Bulk Density	Kgs/m^3
After Heating at 105°C	2550 - 2700
After Heating at 815°C	2450 - 2550
Modulus of Rupture - ASTM C133 and C865	MPa
After Heating at 105°C	7.0 - 15.0
After Heating at 815°C	6.0 - 10.0
After Heating at 1095°C	5.0 - 9.0
After Heating at 1370°C	6.0 - 10.0
Cold Crushing Strength - ASTM C133 and C865	MPa
After Heating at 105°C	40.0 - 75.0
After Heating at 815°C	35.0 - 58.0
After Heating at 1095°C	25.0 - 42.0
After Heating at 1370°C	35.0 - 58.0
Permanent Linear Change - ASTM C113 and C865	
After Heating at 105°C	Nil
After Heating at 815°C	0.05 - 0.2% Shr
After Heating at 1095°C	0 - 0.2% Shr
After Heating at 1370°C	0.1 - 0.5% Shr
After Heating at 1600°C	0 - 0.3% Shr
After Heating at 1820°C	1.0 - 2.0% Shr
Abrasion Loss - ASTM C704	cc
After Heating at 815°C	<12.0
Thermal Conductivity	W/mK
At 205°C	4.41
At 425°C	3.04
At 650°C	2.35
At 870°C	2.03
At 1095°C	1.96
At 1315°C	2.09
Shelf Life (Under Proper Storage Conditions)	365 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.

ANH Refractories Europe is part of the ANH group a family of companies incorporating AP Green, Narco and Harbison Walker.
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