

KAST-O-LITE[®] 97L

Product Data

Ref:31/31/10/12

Description: 1800°C Insulating Castable.

- Features:
- Contains bubble alumina for high strength and moderate density.
 - Has a very low silica content to resist detrimental hydrogen atmospheres.

- Uses:
- Secondary ammonia reformer back-up linings.
 - Carbon black reactor back-up linings and very high temperature back-up linings.
 - Waste heat boiler tube sheets.
 - Controlled atmosphere furnace linings.

Chemical Analysis: Approximate (Calcined Basis)

Silica - SiO ₂	0.5%
Alumina - Al ₂ O ₃	94.5%
Titania - TiO ₂	0.1%
Iron Oxide - Fe ₂ O ₃	0.1%
Lime - CaO	4.4%
Magnesia - MgO	0.1%
Alkalies - Na ₂ O + K ₂ O	0.4%

Physical Properties

	Conventional Cast
Maximum Recommended Temperature	1800°C
Quantity Required	1425 Kgs/m ³
Water required for mixing per 100 Kgs	14 Litres Approximately
Bulk Density	Kgs/m ³
After Heating at 105°C	1550 - 1750
After Heating at 815°C	1250 - 1600
Modulus of Rupture - ASTM C133 and C 865	MPa
After Heating at 105°C	2.0 - 6.0
After Heating at 815°C	1.0 - 3.0
After Heating at 1095°C	1.0 - 3.0
After Heating at 1370°C	2.0 - 6.0
Cold Crushing Strength - ASTM C133 and C865	MPa
After Heating at 105°C	10.0 - 30.0
After Heating at 815°C	5.0 - 10.0
After Heating at 1095°C	5.0 - 10.0
After Heating at 1370°C	6.0 - 17.0
Permanent Linear Change - ASTM C113 and C865	
After Heating at 105°C	<0.05% Shr
After Heating at 815°C	0 - 0.3% Shr
After Heating at 1095°C	0.2% Shr - 0.2% Exp
After Heating at 1370°C	0 - 0.6% Exp
After Heating at 1600°C	0.1% Shr - 0.7% Exp
Thermal Conductivity	W/mK
At 205°C	1.26
At 425°C	0.96
At 650°C	0.86
At 870°C	0.80
At 1095°C	0.81
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.