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Technical Data Sheet

Plico Castable LC 3100 Special KK

Product Number 2428 Date 2/10/2014

Product Description
A versatile high strength, mullite based low cement castable with excellent resistance to thermal shock/cycling. May be vibration cast, cast or pumped.

Service limit - 3100°F *1,704 °C*
Density to place 152 pcf *2,435 kg/m3*
Density in service 152 pcf *2,435 kg/m3*
Min time before firing 16 hr

Std. package 55 # / 25 kg Bag
Water range per std. package:

Casting	1.6 to 1.8 qts	*1.6 to 1.7 l*
Pumping	1.9 to 2.0 qts	*1.8 to 1.9 l*

Chemistry % (calcined)

Al_2O_3	61.1	P_2O_5	
SiO_2	34.7	Alk.	0.2
Fe_2O_3	0.9	MgO	0.1
CaO	1.6	SiC	
TiO_2	1.6	ZrO_2	
		Other	

Thermal Conductivity

	btu*in/hr*ft^2*°F	*w/m°C*
500F / 260C	10.7	*1.54*
1000F / 540C	11.3	*1.62*
1500F / 815C	12.0	*1.72*
2000F / 1090C	12.6	*1.81*

Abrasion Loss
per ASTM C 704
after 1500 F
5 cc

Coefficient of Thermal Expansion
(reversable)
3.6 x 10^-6 in/in F
6.4 x 10^-6 m/m C

Temperature per ASTM C113 / C865	Linear Change per ASTM C113 / C179	Cold MOR per ASTM C133 psi	Cold MOR per ASTM C133 MPa	CCS per ASTM C133 psi	CCS per ASTM C133 MPa	Hot MOR per ASTM C583 psi	Hot MOR per ASTM C583 MPa
230 F / 110 C	0.0%	2000	*13.8*	12500	*86*		
1500 F / 815 C	-0.2%	2500	*17.2*	10500	*72*	3900	*26.9*
2000 F / 1090C	-0.3%	2800	*19.3*		*0*	3600	*24.8*
2500 F / 1370 C	0.5%	3000	*20.7*		*0*	1000	*6.9*
3000 F / 1650 C	0.4%	3200	*22.1*		*0*		*0.0*

Other Data

Heat Up Guide
Schedule C or C-Linear

ASTM Class
C 401 Class F

Low Cement Castable

Note:
All data are averaged results of ASTM tests (where applicable) on laboratory cast specimens.
Reasonable variations in data can be expected. Data is not to be used for specification purposes. Product data is periodically updated to reflect product / raw material / process / testing changes. Please consult your Plico representative to make sure you have the most current data.

Plico Refractories are manufactured by Plibrico Company LLC, USA.