

Plico Shotcrete LC 3100 KK

Product Number 15248

Date 2/10/2014

Product Description

An 80% alumina, bauxite based, low cement castable designed for shotcrete application.

Service limit - 3100°F 1,704 °C

Std. package 55 # / 25 kg Bag

Density to place 164 pcf 2,627 kg/m³

Water range per std. package:

Density in service 164 pcf 2,627 kg/m³

Casting to qts 0.0 to 0.0 l

Min time before firing 16 hr

Pumping 1.8 to 2.0 qts 1.6 to 1.9 l

Chemistry % (calcined)

Al ₂ O ₃	74.1	P ₂ O ₅	
SiO ₂	20.4	Alk.	0.2
Fe ₂ O ₃	1.3	MgO	0.1
CaO	2.3	SiC	
TiO ₂	1.4	ZrO ₂	
		Other	

Thermal Conductivity

	btu*in/hr*ff ² *°F	w/m°C
500F / 260C	14.1	2.03
1000F / 540C	13.6	1.95
1500F / 815C	13.6	1.95
2000F / 1090C	14.1	2.03

Abrasion Loss

per ASTM C 704
after 1500 F

10 cc

Coefficient of Thermal Expansion
(reversible)

4.3 x 10⁻⁶ in/in F

7.7 x 10⁻⁶ m/m C

Temperature per <u>ASTM C113 / C865</u>	Linear Change per <u>ASTM C113 / C179</u>	Cold MOR		CCS		Hot MOR	
		per ASTM C133 <u>psi</u>	<u>MPa</u>	per ASTM C133 <u>psi</u>	<u>MPa</u>	per ASTM C583 <u>psi</u>	<u>MPa</u>
230 F / 110 C	-0.1%	1800	12.4	6000	41		
1500 F / 815 C	-0.3%	2000	13.8	7000	48	2900	20.0
2000 F / 1090C	-0.4%	2300	15.9		0	3200	22.1
2500 F / 1370 C	0.7%	2000	13.8		0	700	4.8
			0.0		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 shotcreted 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.