



Plibrico Company, LLC
Plico Refractories

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Technical Data Sheet

Plico Shotcrete LC 3000 KK

Product Number 15249

Date 2/10/2014

Product Description

A super duty low cement castable designed for shotcrete application.

Service limit - 3000°F 1,648 °C

Std. package 55 # / 25 kg Bag

Density to place 136 pcf 2,178 kg/m³

Water range per std. package:

Density in service 136 pcf 2,179 kg/m³

Casting to qts 0.0 to 0.0 l

Min time before firing 16 hr

Pumping 1.9 to 2.3 qts 1.8 to 2.2 l

Chemistry % (calcined)

Al ₂ O ₃	49.3	P ₂ O ₅	
SiO ₂	44.9	Alk.	0.6
Fe ₂ O ₃	0.8	MgO	0.1
CaO	2.5	SiC	
TiO ₂	1.8	ZrO ₂	
		Other	

Thermal Conductivity

	btu*in/hr*ff ² *°F	w/m°C
500F / 260C	9.3	1.33
1000F / 540C	10.0	1.44
1500F / 815C	10.7	1.54
2000F / 1090C	11.5	1.65

Abrasion Loss

per ASTM C 704
after 1500 F

11 cc

Coefficient of Thermal Expansion
(reversible)

3.1 x 10⁻⁶ in/in F

5.5 x 10⁻⁶ m/m C

Temperature per ASTM C113 / C865	Linear Change per ASTM C113 / C179	Cold MOR		CCS		Hot MOR	
		per ASTM C133 psi	MPa	per ASTM C133 psi	MPa	per ASTM C583 psi	MPa
230 F / 110 C	-0.1%	1200	8.3	8000	55		
1500 F / 815 C	-0.3%	1200	8.3	5500	38	2000	13.8
2000 F / 1090C	-0.4%	1500	10.3		0	1900	13.1
2500 F / 1370 C	0.5%	1900	13.1		0		0.0
			0.0		0		0.0

Other Data

Heat Up Guide

Schedule C or C-Linear

ASTM Class

C 401 Class E

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.