



Plibrico Company, LLC
Plico Refractories

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Technical Data Sheet

Plico Castable LC 70 KK

Product Number 3222

Date 11/21/2016

Product Description

A 70% alumina, low cement castable with improved thermal shock resistance.

Service limit - 3100°F 1700 °C
Density to place 156 pcf 2,499 kg/m³
Density in service 156 pcf 2,499 kg/m³
Min time before firing 16 hr

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

	%	qts	liters
Casting	min 5.8	1.5	1.5
	max 6.6	1.7	1.7
Pumping	min 6.6	1.7	1.7
	max 7.0	1.9	1.8

Chemistry % (calcined)

Al ₂ O ₃	70.7	P ₂ O ₅	0.1
SiO ₂	24.1	Alk.	0.2
Fe ₂ O ₃	1.1	MgO	0.3
CaO	1.5	SiC	
TiO ₂	2.0	ZrO ₂	
		Other	

Thermal Conductivity

	btu*in/hr*ff ² *°F	w/m°C
500F / 260C	11.4	1.6
1000F / 540C	11.1	1.6
1500F / 815C	11.3	1.6
2000F / 1090C	11.8	1.7

Abrasion Loss
 per ASTM C 704
 after 1500 F

7 cc

Coefficient of Thermal Expansion
 (reversible)

4.1 x 10⁻⁶ in/in F
 7.4 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	0.0%	2000	13.8	9500	66.0		
1500 F / 820 C	-0.2%	1900	13.1	9500	66.0	3400	23.4
2000 F / 1090C	-0.3%	2200	12.2			3800	26.2
2500 F / 1370 C	0.9%	2400	16.6			850	5.9

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 Plibrico representative to make sure you have the most current data.