

Plico Castable ULC 65 KK

Product Number 14607

Date 2/10/2014

Product Description

A 65% alumina, mullite based ultra low cement castable which may be vib cast, cast or pumped.

Service limit - 3100°F 1,704 °C

Std. package 55 # / 25 kg Bag

Density to place 155 pcf 2,483 kg/m³

Water range per std. package:

Density in service 155 pcf 2,483 kg/m³

Casting 1.5 to 1.7 qts 1.4 to 1.6 l

Min time before firing 16 hr

Pumping 1.6 to 1.9 qts 1.5 to 1.8 l

Chemistry % (calcined)

Al ₂ O ₃	64.3	P ₂ O ₅	
SiO ₂	32.3	Alk.	0.2
Fe ₂ O ₃	0.9	MgO	0.1
CaO	0.6	SiC	
TiO ₂	1.5	ZrO ₂	
		Other	

Thermal Conductivity

	btu*in/hr*ff 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

10 cc

Coefficient of Thermal Expansion

(reversible)

3.7 x 10⁻⁶ in/in F

6.6 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%	1600	11.0	7000	48		
1500 F / 815 C	-0.2%	1500	10.3	7000	48	3500	24.1
2000 F / 1090C	-0.4%	2800	19.3		0	4000	27.6
2500 F / 1370 C	1.0%	2400	16.6		0	1250	8.6
3000 F / 1650 C	0.6%	3000	20.7		0		0.0

Other Data

Heat Up Guide

Schedule C or C-Linear

ASTM Class

C 401 Class F

Ultra 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.