

Plico Castable ULC 80 KK

Product Number 14606

Date 2/10/2014

Product Description

An 80% alumina, bauxite 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 168 pcf 2,691 kg/m³

Water range per std. package:

Density in service 168 pcf 2,691 kg/m³

Casting 1.4 to 1.6 qts 1.3 to 1.6 l

Min time before firing 16 hr

Pumping 1.5 to 1.9 qts 1.4 to 1.8 l

Chemistry % (calcined)

Al ₂ O ₃	77.6	P ₂ O ₅	
SiO ₂	18.8	Alk.	0.1
Fe ₂ O ₃	1.4	MgO	0.0
CaO	0.5	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

8 cc

Coefficient of Thermal Expansion
(reversible)

4.4 x 10⁻⁶ in/in F

7.9 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	0.0%	1600	11.0	7500	52		
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.