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Plico Refractories

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Technical Data Sheet

Plico Castable LC APS 55 KK

Product Number 14291

Date 2/10/2014

Product Description

A 55% alumina, mullite matrix low cement castable.

Service limit - 3050°F 1676 °C

Std. package 55 # / 25 kg Bag

Density to place 145 pcf 2,322 kg/m³

Water range per std. package:

Density in service 145 pcf 2,323 kg/m³

Casting 1.75 to 2.00 qts 1.65 to 1.89 l

Min time before firing 16 hr

Pumping 1.85 to 2.20 qts 1.75 to 2.08 l

Chemistry % (calcined)

Al ₂ O ₃	56.6	P ₂ O ₅	
SiO ₂	38.4	Alk.	0.8
Fe ₂ O ₃	0.8	MgO	0.1
CaO	1.7	SiC	
TiO ₂	1.6	ZrO ₂	
		Other	

Thermal Conductivity

	btu*in/hr*ff ² *°F	w/m°C
500F / 260C	7.0	1
1000F / 540C	7.9	1.13
1500F / 815C	9.9	1.42
2000F / 1090C	10.5	1.51

Abrasion Loss

per ASTM C 704
after 1500 F

10 cc

Coefficient of Thermal Expansion
(reversible)

3.5 x 10⁻⁶ in/in F

6.3 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%	1400	9.7	7500	52		
1500 F / 815 C	-0.3%	1600	11.0	8000	55	2200	15.2
2000 F / 1090C	-0.4%	18000	124.1		0	3000	20.7
2500 F / 1370 C	0.5%	2200	15.2		0	500	3.4
2900 F / 1595 C	-0.3%	3000	20.7		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 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.