



Plibrico Company, LLC
Plico Refractories

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Technical Data Sheet

Plico Castable HyREZIST 3000 KK

Product Number 14099

Date 2/10/2014

Product Description

A low iron, high strength, abrasion resistant castable which may be vib cast, cast, or pumped.

Service limit - 3000°F 1,648 °C

Std. package 55 # / 25 kg Bag

Density to place 135 pcf 2,162 kg/m³

Water range per std. package:

Density in service 135 pcf 2,163 kg/m³

Casting 2.4 to 2.7 qts 2.3 to 2.5 l

Min time before firing 24 hr

Pumping 2.6 to 3.0 qts 2.5 to 2.8 l

Chemistry % (calcined)

Al ₂ O ₃	56.1	P ₂ O ₅	
SiO ₂	36.7	Alk.	0.6
Fe ₂ O ₃	0.8	MgO	0.1
CaO	4.1	SiC	
TiO ₂	1.5	ZrO ₂	
		Other	

Thermal Conductivity

	btu*in/hr*ff ² *°F	w/m°C
500F / 260C	8.7	1.25
1000F / 540C	9.1	1.31
1500F / 815C	9.6	1.38
2000F / 1090C	10.2	1.46

Abrasion Loss

per ASTM C 704
after 1500 F

7 cc

Coefficient of Thermal Expansion

(reversible)

3.3 x 10⁻⁶ in/in F

5.9 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%	2000	13.8	14000	97		
1500 F / 815 C	-0.3%	1650	11.4	13500	93	2200	15.2
2000 F / 1090C	-0.4%	1900	13.1		0	1800	12.4
2500 F / 1370 C	-0.7%	2500	17.2		0	450	3.1
3000 F / 1650 C	1.1%	3100	21.4		0		0.0

Other Data

Heat Up Guide

Schedule C or C-Linear

ASTM Class

C 401 Class E

Regular 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.