

Plico Castable Firehearth

Product Number 14034

Date 2/10/2014

Product Description

A low duty, fireclay castable formulated for application in fireplaces and wood burning stoves. Suitable for both poured in place linings and precast lining components.

Service limit - 1800°F 982 °C

Std. package 55 # / 25 kg Bag

Density to place 118 pcf 1,890 kg/m³

Water range per std. package:

Density in service 118 pcf 1,890 kg/m³

Casting 3.3 to 3.8 qts 3.1 to 3.6 l

Min time before firing 24 hr

Pumping to qts 0.0 to 0.0 l

Chemistry % (calcined)

Al ₂ O ₃	33.5	P ₂ O ₅	
SiO ₂	45.8	Alk.	0.7
Fe ₂ O ₃	1.5	MgO	0.8
CaO	16.2	SiC	
TiO ₂	1.8	ZrO ₂	
		Other	

Thermal Conductivity

	btu*in/hr*ff ² *°F	w/m°C
500F / 260C	5.2	0.74
1000F / 540C	5.3	0.76
1500F / 815C	5.5	0.79
2000F / 1090C		0

Abrasion Loss

per ASTM C 704
after 1500 F

cc

Coefficient of Thermal Expansion

(reversible)

3 x 10⁻⁶ in/in F
5.4 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	-0.1%	950	6.5	4000	28		
1000 F / 540 C	-0.2%	500	3.4		0	800	5.5
1500 F / 815 C	-0.3%	175	1.2	1000	7	200	1.4
1800 F / 980 C	-0.5%	150	1.0		0	150	1.0
			0.0		0		0.0

Other Data

Heat Up Guide
Schedule B

ASTM Class

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.