

Plico Castable Si-Bond SP

Product Number 14794

Date 2/10/2014

Product Description

A spinel enriched, high alumina, cement free castable.

Service limit - 3100°F 1,704 °C

Std. package 55 # / 25 kg Bag

Density to place 182 pcf 2,915 kg/m³

Water range per std. package:

Density in service 182 pcf 2,916 kg/m³

Casting 1.4 to 1.6 qts 1.3 to 1.5 l

Min time before firing 24 hr

Pumping to qts 0.0 to 0.0 l

Chemistry % (calcined)

Al ₂ O ₃	84.3	P ₂ O ₅	
SiO ₂	7.9	Alk.	0.5
Fe ₂ O ₃	0.1	MgO	7.2
CaO	0.1	SiC	
TiO ₂		ZrO ₂	
		Other	

Thermal Conductivity

	btu*in/hr*ff ² *°F	w/m°C
500F / 260C	18.0	2.59
1000F / 540C	17.5	2.52
1500F / 815C	17.0	2.44
2000F / 1090C	18.0	2.59

Abrasion Loss

per ASTM C 704
after 1500 F

cc

Coefficient of Thermal Expansion

(reversible)

4.9 x 10⁻⁶ in/in F

8.8 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		850	5.9	1800	12		
1500 F / 815 C		1600	11.0	7500	52	1500	10.3
1800 F / 980 C			0.0		0	3200	22.1
2000 F / 1090 C		2500	17.2		0	4500	31.0
2500 F / 1370 C		3500	24.1		0	1000	6.9

Other Data

Heat Up Guide

Schedule E

ASTM Class

C 401 Class F

No 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.