

Plico HR 68 S

Product Number 10047

Date 2/10/2014

Product Description

A 70% alumina, mullite based, phosphate bonded plastic designed for pneumatic application. Non wetting to aluminum alloys.

Service limit - 3100°F 1,704 °C

Density to place 160 pcf 2,563 kg/m³

Density in service 152 pcf 2,435 kg/m³

Min time before firing none

Std. package Variable wt piece

Water range per std. package:

Casting to qts 0.0 to 0.0 l

Pumping to qts 0.0 to 0.0 l

Chemistry % (calcined)

Al ₂ O ₃	67.6	P ₂ O ₅	2.7
SiO ₂	27.1	Alk.	0.2
Fe ₂ O ₃	0.8	MgO	0.1
CaO	0.1	SiC	
TiO ₂	1.4	ZrO ₂	
Other			

Thermal Conductivity

	btu*in/hr*ff ² *°F	w/m°C
500F / 260C	8.1	1.16
1000F / 540C	8.3	1.19
1500F / 815C	9.1	1.31
2000F / 1090C	10.5	1.51

Abrasion Loss

per ASTM C 704
after 1500 F

12 cc

**Coefficient of
Thermal Expansion**
(reversible)

3.7 x 10⁻⁶ in/in F

6.6 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	-0.5%	1100	7.6	2000	14		
1500 F / 815 C	-0.6%	1300	9.0	8000	55	1700	11.7
2000 F / 1090C	-0.7%	1400	9.7		0	1600	11.0
2500 F / 1370 C	0.3%	2000	13.8		0	650	4.5
3000 F / 1650 C	-0.8%	2400	16.6		0		0.0

Other Data

Heat Up Guide

Schedule A

ASTM Class

C 673 70% Alumina

Plastic Refractory

Note:

All data are averaged results of ASTM tests (where applicable) on laboratory pressed 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.