

Plico HR 80 AB

Product Number 10080

Date 2/10/2014

Product Description

A 60% alumina, air bonded plastic designed for pneumatic application.

Service limit - 3200°F 1,760 °C

Density to place 175 pcf 2,803 kg/m³

Density in service 165 pcf 2,643 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	77.8	P ₂ O ₅	
SiO ₂	18.6	Alk.	0.3
Fe ₂ O ₃	1.5	MgO	0.1
CaO	0.1	SiC	
TiO ₂	1.6	ZrO ₂	
		Other	

Thermal Conductivity

	btu*in/hr*ff ² *°F	w/m°C
500F / 260C	10.2	1.46
1000F / 540C	9.5	1.36
1500F / 815C	10.0	1.44
2000F / 1090C	11.5	1.65

Abrasion Loss

per ASTM C 704
after 1500 F

cc

Coefficient of Thermal Expansion

(reversible)

4.2 x 10⁻⁶ in/in F

7.5 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	-0.4%	550	3.8	700	5		
1500 F / 815 C	-0.5%	400	2.8	1000	7	700	4.8
2000 F / 1090C	-0.6%	650	4.5		0	1000	6.9
2500 F / 1370 C	-0.1%	700	4.8		0	350	2.4
3000 F / 1650 C	1.8%	1100	7.6		0		0.0

Other Data

Heat Up Guide

Schedule A

ASTM Class

C 673 80% 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.