

**Plico HR Super F AB**

Product Number 10041

Date 2/10/2014

**Product Description**

A super duty class, air bonded plastic designed for pneumatic application.

**Service limit -** 2900°F 1,593 °C

**Std. package** Variable wt piece

**Density to place** 153 pcf 2,451 kg/m<sup>3</sup>

**Water range per std. package:**

**Density in service** 142 pcf 2,275 kg/m<sup>3</sup>

**Casting** to qts 0.0 to 0.0 l

**Min time before firing** none

**Pumping** to qts 0.0 to 0.0 l

**Chemistry % (calcined)**

Al <sub>2</sub> O <sub>3</sub>	43.3	P <sub>2</sub> O <sub>5</sub>	
SiO <sub>2</sub>	52.5	Alk.	0.8
Fe <sub>2</sub> O <sub>3</sub>	1.1	MgO	0.1
CaO	0.2	SiC	
TiO <sub>2</sub>	1.9	ZrO <sub>2</sub>	
		Other	

**Thermal Conductivity**

	btu*in/hr*ff <sup>2</sup> *°F	w/m°C
500F / 260C	4.8	0.69
1000F / 540C	5.9	0.84
1500F / 815C	7.0	1
2000F / 1090C	8.2	1.18

**Abrasion Loss**

per ASTM C 704  
after 1500 F

cc

**Coefficient of Thermal Expansion**  
(reversible)

2.7 x 10<sup>-6</sup> in/in F

4.8 x 10<sup>-6</sup> 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%	500	3.4	600	4		
1500 F / 815 C	-0.6%	400	2.8	1000	7	550	3.8
2000 F / 1090C	-0.6%	700	4.8		0	800	5.5
2500 F / 1370 C	0.7%	900	6.2		0	150	1.0
2900 F / 1595 C	1.2%	1300	9.0		0		0.0

**Other Data**

**Heat Up Guide**

Schedule A

**ASTM Class**

C 673 Super Duty

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.*