

**Plico Shotcrete HyREZIST 3000 KK**

Product Number 15251

Date 2/10/2014

**Product Description**

A low iron, high strength, abrasion resistant castable for shotcrete application.

**Service limit -** 3000°F 1,648 °C

**Std. package** 55 # / 25 kg Bag

**Density to place** 130 pcf 2,082 kg/m<sup>3</sup>

**Water range per std. package:**

**Density in service** 130 pcf 2,083 kg/m<sup>3</sup>

**Casting** to qts 0.0 to 0.0 l

**Min time before firing** 24 hr

**Pumping** 2.4 to 2.8 qts 2.3 to 2.6 l

**Chemistry % (calcined)**

Al <sub>2</sub> O <sub>3</sub>	59.2	P <sub>2</sub> O <sub>5</sub>	
SiO <sub>2</sub>	33.6	Alk.	0.5
Fe <sub>2</sub> O <sub>3</sub>	0.9	MgO	0.1
CaO	4.1	SiC	
TiO <sub>2</sub>	1.5	ZrO <sub>2</sub>	
		Other	

**Thermal Conductivity**

	btu*in/hr*ff <sup>2</sup> *°F	w/m°C
500F / 260C	8.7	1.25
1000F / 540C	9.1	1.31
1500F / 815C	9.6	1.38
2000F / 1090C	10.2	1.46

**Abrasion Loss**

per ASTM C 704  
after 1500 F

12 cc

**Coefficient of  
Thermal Expansion**  
(reversible)

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

6.1 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	-0.1%	1300	9.0	7000	48		
1500 F / 815 C	-0.3%	1100	7.6	7500	52	2000	13.8
2000 F / 1090C	-0.5%	1200	8.3		0	1700	11.7
2500 F / 1370 C	-0.7%		0.0		0	300	2.1
			0.0		0		0.0

**Other Data**

**Heat Up Guide**

Schedule C or C-Linear

**ASTM Class**

C 401 Class E

Regular Castable

**Note:**

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