



**Plibrico Company, LLC**  
**Plico Refractories**

1935 Techny Road - Unit 16  
 Northbrook, IL 60062  
 Phone: 312-337-9000 Fax: 312-337-9003  
 www.plico-refractories.com.com

**Technical Data Sheet**

**Plico Gun Mix 48**

Product Number 13003

Date 2/10/2014

**Product Description**

A super duty gun mix designed for hot or cold gunning repairs.

**Service limit -** 2900°F 1593 °C

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

**Density to place** 115 pcf 1,842 kg/m<sup>3</sup>

**Water range per std. package:**

**Density in service** 115 pcf 1,842 kg/m<sup>3</sup>

**Casting** to qts 0 to 0 l

**Min time before firing** none

**Pumping** to qts 0.00 to 0 l

**Chemistry % (calcined)**

Al <sub>2</sub> O <sub>3</sub>	43.2	P <sub>2</sub> O <sub>5</sub>	
SiO <sub>2</sub>	48.1	Alk.	0.8
Fe <sub>2</sub> O <sub>3</sub>	1.6	MgO	0.2
CaO	3.9	SiC	
TiO <sub>2</sub>	2.1	ZrO <sub>2</sub>	
		Other	

**Thermal Conductivity**

	btu*in/hr*ff <sup>2</sup> *°F	w/m°C
500F / 260C	5.1	0.73
1000F / 540C	5.2	0.74
1500F / 815C	5.5	0.79
2000F / 1090C	5.8	0.83

**Abrasion Loss**

per ASTM C 704  
after 1500 F

cc

**Coefficient of Thermal Expansion**  
(reversible)

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

5.2 x 10<sup>-6</sup> m/m C

Temperature per ASTM C113 / C865	Linear Change per ASTM C113 / C179	Cold MOR		CCS		Hot MOR	
		per ASTM C133 psi	MPa	per ASTM C133 psi	MPa	per ASTM C583 psi	MPa
230 F / 110 C	-0.2%	125	0.9	300	2		
1500 F / 815 C	-0.4%	150	1.0	300	2	150	1.0
2000 F / 1090C	-0.5%	250	1.7		0	150	1.0
2500 F / 1370 C	-0.2%	600	4.1		0		0.0
2900 F / 1595 C	-1.4%	1200	8.3		0		0.0

**Other Data**

**Heat Up Guide**

Schedule B

**ASTM Class**

C 401 Class E

Regular Castable

**Note:**

All data are averaged results of ASTM tests (where applicable) on laboratory gunned 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 Plibrico representative to make sure you have the most current data.