

**Plico Gun Mix LC 8A**

Product Number 13070

Date 2/10/2014

**Product Description**

An 80% alumina, high hot strength, abrasion resistant, low cement gun mix. Note: optimum gunned properties requires the use of a water booster pump (min. water pressure at the nozzle - 125psi.) and a 16 hole water ring.

**Service limit -** 3100°F 1,704 °C

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

**Density to place** 158 pcf 2,531 kg/m<sup>3</sup>

**Water range per std. package:**

**Density in service** 158 pcf 2,531 kg/m<sup>3</sup>

**Casting** to qts 0.0 to 0.0 l

**Min time before firing** 16 hr

**Pumping** to qts 0.0 to 0.0 l

**Chemistry % (calcined)**

Al <sub>2</sub> O <sub>3</sub>	81.7	P <sub>2</sub> O <sub>5</sub>	
SiO <sub>2</sub>	12.7	Alk.	0.2
Fe <sub>2</sub> O <sub>3</sub>	1.5	MgO	0.1
CaO	2.0	SiC	
TiO <sub>2</sub>	1.6	ZrO <sub>2</sub>	
		Other	

**Thermal Conductivity**

	btu*in/hr*ff <sup>2</sup> *°F	w/m°C
500F / 260C	11.1	1.59
1000F / 540C	9.6	1.38
1500F / 815C	9.3	1.33
2000F / 1090C	10.2	1.46

**Abrasion Loss**

per ASTM C 704  
after 1500 F

9 cc

**Coefficient of Thermal Expansion**

(reversible)

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

7 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%	1700	11.7	8500	59		
1500 F / 815 C	-0.3%	1500	10.3	8000	55	1800	12.4
1800 F / 980 C	-0.5%	1600	11.0		0	1700	11.7
2000 F / 1090 C	-0.4%	1100	7.6		0	1600	11.0
2500 F / 1370 C	0.5%	1300	9.0		0	250	1.7

**Other Data**

**Heat Up Guide**

Schedule C or C-Linear

**ASTM Class**

C 401 Class F

Low Cement 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 Plico representative to make sure you have the most current data.

*Plico Refractories are manufactured by Plibrico Company LLC, USA.*