

**Plico Shotcrete LC CL AZS KK**

Product Number 15411

Date 2/10/2014

**Product Description**

An alkali resistant, AZS based castable for casting or shotcreting.

**Service limit -** 2800°F 1,537 °C

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

**Density to place** 175 pcf 2,803 kg/m<sup>3</sup>

**Water range per std. package:**

**Density in service** 175 pcf 2,804 kg/m<sup>3</sup>

**Casting** 1.6 to 1.9 qts 1.5 to 1.8 l

**Min time before firing** 16 hr

**Pumping** 1.7 to 2.0 qts 1.6 to 1.9 l

**Chemistry % (calcined)**

Al <sub>2</sub> O <sub>3</sub>	51.8	P <sub>2</sub> O <sub>5</sub>	
SiO <sub>2</sub>	19.2	Alk.	0.2
Fe <sub>2</sub> O <sub>3</sub>	0.3	MgO	0.0
CaO	1.6	SiC	4.8
TiO <sub>2</sub>	0.4	ZrO <sub>2</sub>	21.8
Other			

**Thermal Conductivity**

	btu*in/hr*ff <sup>2</sup> *°F	w/m°C
500F / 260C	13.2	1.9
1000F / 540C	13.8	1.98
1500F / 815C	14.5	2.08
2000F / 1090C	15.1	2.17

**Abrasion Loss**

per ASTM C 704  
after 1500 F

9 cc

**Coefficient of Thermal Expansion**  
(reversible)

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

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

Temperature per ASTM C113 / C865	Linear Change per ASTM C113 / C179	Cold MOR per ASTM C133		CCS per ASTM C133		Hot MOR per ASTM C583	
		psi	MPa	psi	MPa	psi	MPa
230 F / 110 C	0.0%	1500	10.3	8500	59		
1500 F / 815 C	-0.2%	1700	11.7	8500	59	2000	13.8
2000 F / 1090C	-0.3%	2100	14.5		0	2400	16.6
2500 F / 1370 C	-0.4%	2600	17.9		0		0.0
			0.0		0		0.0

**Other Data**

**Heat Up Guide**

Schedule C or C-Linear

**ASTM Class**

C 401 Class D

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.*