

**Plico Flow LC 3100 KK**

Product Number 14804

Date 2/10/2014

**Product Description**

An 80% alumina, bauxite based, self leveling, low cement castable.

**Service limit -** 3100°F 1,704 °C

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

**Density to place** 165 pcf 2,643 kg/m<sup>3</sup>

**Water range per std. package:**

**Density in service** 165 pcf 2,643 kg/m<sup>3</sup>

**Casting** 1.5 to 1.8 qts 1.4 to 1.7 l

**Min time before firing** 24 hr

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

**Chemistry % (calcined)**

Al <sub>2</sub> O <sub>3</sub>	82.2	P <sub>2</sub> O <sub>5</sub>	
SiO <sub>2</sub>	12.3	Alk.	0.2
Fe <sub>2</sub> O <sub>3</sub>	1.3	MgO	0.1
CaO	1.5	SiC	
TiO <sub>2</sub>	1.7	ZrO <sub>2</sub>	
		Other	

**Thermal Conductivity**

	btu*in/hr*ff <sup>2</sup> *°F	w/m°C
500F / 260C	14.1	2.03
1000F / 540C	13.6	1.95
1500F / 815C	13.6	1.95
2000F / 1090C	14.1	2.03

**Abrasion Loss**

per ASTM C 704  
after 1500 F

7 cc

**Coefficient of Thermal Expansion**

(reversible)

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

7.5 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	0.0%	1800	12.4	8000	55		
1500 F / 815 C	-0.2%	2200	15.2	9000	62	2800	19.3
2000 F / 1090C	-0.3%	2700	18.6		0	3100	21.4
2500 F / 1370 C	0.1%	3000	20.7		0	800	5.5
3000 F / 1650 C	-0.4%	3200	22.1		0		0.0

**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 self flow cast 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.*