

**Plico Castable LC 90 MA7-V KK**

Product Number 14236

Date 2/10/2014

**Product Description**

A high alumina, magnesium aluminate spinel enriched, low cement castable. Vibration cast only.

**Service limit -** 3300°F 1,815 °C

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

**Density to place** 183 pcf 2,931 kg/m<sup>3</sup>

**Water range per std. package:**

**Density in service** 183 pcf 2,932 kg/m<sup>3</sup>

**Casting** 1.1 to 1.3 qts 1.0 to 1.2 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>	91.7	P <sub>2</sub> O <sub>5</sub>	
SiO <sub>2</sub>	0.2	Alk.	0.3
Fe <sub>2</sub> O <sub>3</sub>	0.0	MgO	6.3
CaO	1.6	SiC	
TiO <sub>2</sub>	0.0	ZrO <sub>2</sub>	
		Other	

**Thermal Conductivity**

	btu*in/hr*ff <sup>2</sup> *°F	w/m°C
500F / 260C	20.0	2.88
1000F / 540C	19.0	2.73
1500F / 815C	19.0	2.73
2000F / 1090C	20.0	2.88

**Abrasion Loss**

per ASTM C 704  
after 1500 F

cc

**Coefficient of Thermal Expansion**  
(reversible)

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

9.7 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%	1500	10.3	8000	55	1300	9.0
2000 F / 1090C	-0.2%	2000	13.8		0	1350	9.3
2500 F / 1370 C	0.2%	2500	17.2		0	2200	15.2
3000 F / 1650 C	-0.3%	2800	19.3		0		0.0

**Other Data**

**Heat Up Guide**

Schedule C or C-Linear

**ASTM Class**

C 401 Class G

Low Cement Castable

**Note:**

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