

**Plico Castable A-S 2765 KK**

Product Number 16903

Date 2/10/2014

**Product Description**

A high strength low cement castable with excellent resistance to aluminum, maintains hot strength at elevated temperature and has good thermal shock resistance.

**Typical Aluminum Applications**

Furnace lower sidewalls, hearths, ramps, & sills. Transfer & OTR ladles. Troughs & launders. Tap out block.

**Service limit -** 2800°F 1537 °C

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

**Al contact limit -** 2000 °F 1093°C

**Water range per std. package:**

**Density to place** 162 pcf 2,595 kg/m<sup>3</sup>

**Casting** 1.3 to 1.7 qts 1.2 to 1.6 l

**Density in service** 162 pcf 2,595 kg/m<sup>3</sup>

**Pumping** 1.5 to 2.0 qts 1.4 to 1.9 l

**Min time before firing** 16 hr

**Chemistry % (calcined)**

Al <sub>2</sub> O <sub>3</sub>	56.6	P <sub>2</sub> O <sub>5</sub>	
SiO <sub>2</sub>	25.3	Alk.	0.1
Fe <sub>2</sub> O <sub>3</sub>	1.0	MgO	0.1
CaO	1.8	SiC	
TiO <sub>2</sub>	1.3	ZrO <sub>2</sub>	6.4
		Other	7.4

**Thermal Conductivity**

	btu*in/hr*ft <sup>2</sup> *°F	w/m°C
<b>500F / 260C</b>	12.0	1.72
<b>1000F / 540C</b>	13.0	1.87
<b>1500F / 815C</b>	13.9	2
<b>2000F / 1090C</b>	14.7	2.11

**Abrasion Loss**

per ASTM C 704  
after 1500 F

8 cc

**Coefficient of Thermal Expansion**

(reversible)

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

6.1 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	0.0%	2100	14.5	8500	59		
1500 F / 815 C	-0.2%	2000	13.8	8000	55	3200	22.1
1800 F / 980 C	-0.3%	1800	12.4		0	3300	22.8
2000 F / 1090 C	-0.4%	1750	12.1		0	2100	14.5
2300 F / 1260 C	-0.6%		0.0		0	1600	11.0

**Other Data**

**Heat Up Guide**

Schedule AT AS or AT AS Linear

**ASTM Class**

C 401 Class D

Low Cement Castable

**Note:**

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