

**Plico Castable A-T C/G 25**

Product Number 18013

Date 2/10/2014

**Product Description**

An economical aluminum non-wetting fireclay castable. Cast data - see "other data" for gunned density and strength.

**Typical Aluminum Applications**

Aluminum furnace subhearth, non-critical backup / fill.

**Service limit -** 2500°F 1371 °C

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

**Al contact limit -** 1500 °F 815°C

**Water range per std. package:**

**Density to place** 118 pcf 1,890 kg/m<sup>3</sup>

**Casting** 3.5 to 4.2 qts 3.3 to 4.0 l

**Density in service** 118 pcf 1,890 kg/m<sup>3</sup>

**Pumping** to qts 0.0 to 0.0 l

**Min time before firing** 24 hr

**Chemistry % (calcined)**

Al <sub>2</sub> O <sub>3</sub>	40.6	P <sub>2</sub> O <sub>5</sub>	
SiO <sub>2</sub>	45.9	Alk.	0.6
Fe <sub>2</sub> O <sub>3</sub>	2.2	MgO	0.2
CaO	8.6	SiC	
TiO <sub>2</sub>	2.1	ZrO <sub>2</sub>	
		Other	

**Thermal Conductivity**

	btu*in/hr*ft <sup>2</sup> *°F	w/m°C
<b>500F / 260C</b>	5.3	0.76
<b>1000F / 540C</b>	5.4	0.77
<b>1500F / 815C</b>	5.6	0.8
<b>2000F / 1090C</b>	6.0	0.86

**Abrasion Loss**

per ASTM C 704  
after 1500 F

cc

**Coefficient of Thermal Expansion**

(reversible)

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

5 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%	700	4.8	2200	15		
1500 F / 815 C	-0.5%	400	2.8	1500	10	400	2.8
2000 F / 1090C	-1.0%	400	2.8		0		0.0
2500 F / 1370 C	1.5%	1200	8.3		0		0.0
			0.0		0		0.0

**Other Data**

Gunned - density to place & in service 116 pcf, 230F - CCS 1800psi CMOR 650psi

**Heat Up Guide**

Schedule B

**ASTM Class**

C 401 Class C

Regular 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.*