



# Plibrico Company, LLC

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# Technical Data Sheet Plicast Al-Tuff C/G 25 KK

Product # 18013

Available Internationally As:

Plico Castable A-T C/G 25 KK

### Product Description:

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

**Standard Packaging:** 55 # / 25 kg Bag

**Shelf Life:** 12 months

**Service Limit:** 2500 °F 1370 °C

**Contact Limit:** 1500 °F 816 °C

**Bulk Density - In Service:** 118 pcf 1890 kg/m<sup>3</sup>

**Bulk Density - To Place:** 118 pcf 1890 kg/m<sup>3</sup>

**Minimum Time To Firing:** 24 hr

**Abrasion Loss after 1500°F / 815°C**  
 per ASTM C704

N/A cc

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

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min	12.0	3.2	3.0
	max	13.0	3.4	3.3
Pumping	min			
	max			

**Coefficient of Thermal Expansion (reversible):**

2.8 x 10<sup>-6</sup> in/in/°F / 5.0 x 10<sup>-6</sup> mm/mm/°C

Thermal Conductivity	btu*in/hr*ft <sup>2</sup> *°F	W/m°C
500°F / 260°C	5.3	0.8
1000°F / 540°C	5.4	0.8
1500°F / 815°C	5.6	0.8
2000°F / 1090°C	6.0	0.9

Temperature		Linear Change% per ASTM C113	CCS per ASTM C133		Cold MOR per ASTM C133		Hot MOR per ASTM C583	
°F	°C		psi	MPa	psi	MPa	psi	MPa
230	110	-0.1	2200	15.0	700	4.8		
1500	820	-0.5	1500	10.0	400	2.8	400	2.8
2000	1090	-1.0			400	2.8		
2500	1370	1.5			1200	8.3		

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

Release Date: 1 Aug 2019

Heat Up Guide: Schedule B

ASTM Class: C 401 Class C  
 Regular Castable

Refractory material should be stored in a cool, dry environment.

**Note:** All data are averaged results of ASTM tests (where applicable) on laboratory 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 and/or testing changes. Please consult your Plibrico representative to make sure you have the most current data.