

Plico Castable A-T 36

Product Number 16509

Date 2/10/2014

Product Description

A 60% alumina, mullite based, high strength, non-wetting castable.

Typical Aluminum Applications

Aluminum melting and holding furnace lower sidewalls. Heated launders. Transfer ladles.

Service limit - 3100°F 1704 °C

Std. package 55 # / 25 kg Bag

Al contact limit - 1700 °F 926°C

Water range per std. package:

Density to place 150 pcf 2,403 kg/m³

Casting 2.2 to 2.5 qts 2.1 to 2.4 l

Density in service 150 pcf 2,403 kg/m³

Pumping to qts 0.0 to 0.0 l

Min time before firing 24 hr

Chemistry % (calcined)

Al ₂ O ₃	60.1	P ₂ O ₅	
SiO ₂	31.6	Alk.	0.3
Fe ₂ O ₃	0.9	MgO	0.1
CaO	4.9	SiC	
TiO ₂	1.6	ZrO ₂	
		Other	

Thermal Conductivity

	btu*in/hr*ft ² *°F	w/m°C
500F / 260C	8.6	1.23
1000F / 540C	8.7	1.25
1500F / 815C	8.9	1.28
2000F / 1090C	9.3	1.33

Abrasion Loss

per ASTM C 704
after 1500 F

cc

Coefficient of Thermal Expansion

(reversible)

3.7 x 10⁻⁶ in/in F

6.6 x 10⁻⁶ 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%	1000	6.9	6000	41		
1000 F / 540 C	-0.2%	750	5.2		0	800	5.5
1500 F / 815 C	-0.3%	800	5.5	4500	31	900	6.2
			0.0		0		0.0
			0.0		0		0.0

Other Data

Heat Up Guide

Schedule B

ASTM Class

C 401 Class F

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.