

Plico Castable A-T 27 C P KK

Product Number 14279

Date 2/10/2014

Product Description

An intermediate duty, high strength, non-wetting coarse grain castable designed for pump placement.

Typical Aluminum Applications

Aluminum Melting and Holding Furnaces: sub-hearths, floor splash pads

Service limit - 2500°F 1371 °C

Std. package 55 # / 25 kg Bag

Al contact limit - 1700 °F 926°C

Water range per std. package:

Density to place 130 pcf 2,082 kg/m³

Casting to qts 0.0 to 0.0 l

Density in service 130 pcf 2,083 kg/m³

Pumping 2.6 to 3.1 qts 2.5 to 2.9 l

Min time before firing 24 hr

Chemistry % (calcined)

Al ₂ O ₃	43.6	P ₂ O ₅	
SiO ₂	38.4	Alk.	0.6
Fe ₂ O ₃	2.8	MgO	0.3
CaO	12.2	SiC	
TiO ₂	2.1	ZrO ₂	
		Other	

Thermal Conductivity

	btu*in/hr*ft ² *°F	w/m°C
500F / 260C	6.5	0.93
1000F / 540C	6.6	0.95
1500F / 815C	6.7	0.96
2000F / 1090C	6.9	0.99

Abrasion Loss

per ASTM C 704
after 1500 F

cc

Coefficient of Thermal Expansion

(reversible)

3 x 10⁻⁶ in/in F

5.4 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%	950	6.5	4500	31		
1000 F / 540 C	-0.2%	450	3.1		0		0.0
1500 F / 815 C	-0.3%	600	4.1	3800	26	650	4.5
			0.0		0		0.0
			0.0		0		0.0

Other Data

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 pump 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.