

Plico Castable A-T LW 28

Product Number 16506

Date 2/10/2014

Product Description

A high temperature, aluminum resistant insulating castable.

Typical Aluminum Applications

Back up application where non-wetting insulation is required, OTR and transfer ladle linings, and trough liners.

Service limit - 2800°F 1537 °C

Std. package 55 # / 25 kg Bag

Al contact limit - 1700 °F 926°C

Water range per std. package:

Density to place 80 pcf 1,281 kg/m³

Casting 6.8 to 7.8 qts 6.4 to 7.4 l

Density in service 80 pcf 1,282 kg/m³

Pumping to qts 0.0 to 0.0 l

Min time before firing 24 hr

Chemistry % (calcined)

Al ₂ O ₃	54.3	P ₂ O ₅	
SiO ₂	36.8	Alk.	1.5
Fe ₂ O ₃	0.7	MgO	0.1
CaO	5.8	SiC	
TiO ₂	0.8	ZrO ₂	
Other			

Thermal Conductivity

	btu*in/hr*ft ² *°F	w/m°C
500F / 260C	2.8	0.4
1000F / 540C	2.9	0.41
1500F / 815C	3.1	0.44
2000F / 1090C	3.5	0.5

Abrasion Loss

per ASTM C 704
after 1500 F

cc

Coefficient of Thermal Expansion

(reversible)

2.9 x 10⁻⁶ in/in F

5.2 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%	500	3.4	1100	8		
1500 F / 815 C	-0.4%	400	2.8	1000	7	450	3.1
2000 F / 1090C	-0.5%	300	2.1		0	225	1.6
2500 F / 1370 C	1.5%	275	1.9		0		0.0
2800 F / 1540 C	0.3%	800	5.5		0		0.0
Other Data							

Heat Up Guide

Schedule B

ASTM Class

C 401 Class S

Insulating 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.