

Plico Castable A-S GHC 7 KK

Product Number 14911

Date 2/10/2014

Product Description

An 70% alumina, mullite based, low cement castable with excellent aluminum resistance at elevated temperatures.

Typical Aluminum Applications

Furnace lower sidewalls, belly bands and division walls. Transfer ladles.

Service limit - 3000°F 1648 °C

Std. package 55 # / 25 kg Bag

Al contact limit - 2000 °F 1093°C

Water range per std. package:

Density to place 165 pcf 2,643 kg/m³

Casting 1.6 to 1.8 qts 1.5 to 1.6 l

Density in service 165 pcf 2,643 kg/m³

Pumping 1.8 to 2.0 qts 1.7 to 1.9 l

Min time before firing 16 hr

Chemistry % (calcined)

Al ₂ O ₃	69.7	P ₂ O ₅	
SiO ₂	17.2	Alk.	0.1
Fe ₂ O ₃	1.2	MgO	0.1
CaO	2.1	SiC	
TiO ₂	1.4	ZrO ₂	
		Other	8.1

Thermal Conductivity

	btu*in/hr*ft ² *°F	w/m°C
500F / 260C	11.1	1.59
1000F / 540C	10.6	1.52
1500F / 815C	10.5	1.51
2000F / 1090C	10.9	1.56

Abrasion Loss

per ASTM C 704
after 1500 F

9 cc

Coefficient of Thermal Expansion

(reversible)

4 x 10⁻⁶ in/in F
7.2 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	0.0%	1800	12.4	9000	62		
1000 F / 540 C	-0.1%	1300	9.0		0	1900	13.1
1500 F / 815 C	-0.2%	1400	9.7	9000	62	2600	17.9
1800 F / 980 C	-0.2%	1700	11.7		0	2800	19.3
2000 F / 1090 C	-0.3%	2000	13.8		0	2000	13.8

Other Data

Heat Up Guide

Schedule AT AS or AT AS Linear

ASTM Class

C 401 Class E

Low Cement 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.