

Plico Castable A-S H8SD KK

Product Number 14280

Date 2/10/2014

Product Description

A high alumina, high strength aluminum resistant refractory castable. Preliminary Data.

Typical Aluminum Applications

Aluminum furnace hearths & sidewalls.

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 180 pcf 2,883 kg/m³

Casting 1.5 to 1.6 qts 1.4 to 1.6 l

Density in service 180 pcf 2,884 kg/m³

Pumping to qts 0.0 to 0.0 l

Min time before firing 16 hr

Chemistry % (calcined)

Al ₂ O ₃	82.6	P ₂ O ₅	
SiO ₂	4.2	Alk.	0.3
Fe ₂ O ₃	0.1	MgO	0.0
CaO	3.0	SiC	
TiO ₂	0.0	ZrO ₂	
		Other	9.7

Thermal Conductivity

	btu*in/hr*ft ² *°F	w/m°C
500F / 260C	25.0	3.6
1000F / 540C	20.3	2.92
1500F / 815C	17.6	2.53
2000F / 1090C	17.8	2.56

Abrasion Loss

per ASTM C 704
after 1500 F

6 cc

Coefficient of Thermal Expansion

(reversible)

5 x 10⁻⁶ in/in F

9 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%	2100	14.5	11000	76		
1500 F / 815 C	-0.3%	2500	17.2	10000	69	3000	20.7
1800 F / 980 C	-0.4%	2200	15.2		0	2000	13.8
			0.0		0		0.0
			0.0		0		0.0

Other Data

Heat Up Guide

Schedule AT AS or AT AS Linear

ASTM Class

C 401 Class E

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.