

Plico Gun Mix SiC HP8

Product Number 13074

Date 2/10/2014

Product Description

An 80% silicon carbide, high strength, high conductivity gun mix.

Service limit - 2700°F 1,482 °C

Density to place 150 pcf 2,403 kg/m³

Density in service 150 pcf 2,403 kg/m³

Min time before firing 24 hr

Std. package 55 # / 25 kg Bag

Water range per std. package:

Casting to qts 0.0 to 0.0 l

Pumping to qts 0.0 to 0.0 l

Chemistry % (calcined)

Al ₂ O ₃	11.5	P ₂ O ₅	
SiO ₂	3.6	Alk.	0.1
Fe ₂ O ₃	0.2	MgO	0.1
CaO	4.7	SiC	79.7
TiO ₂	0.2	ZrO ₂	
		Other	

Thermal Conductivity

	btu*in/hr*ff ² *°F	w/m°C
500F / 260C	41.2	5.93
1000F / 540C	31.6	4.55
1500F / 815C	37.6	5.41
2000F / 1090C	58.6	8.43

Abrasion Loss

per ASTM C 704
after 1500 F

14 cc

Coefficient of Thermal Expansion

(reversible)

3.3 x 10⁻⁶ in/in F

5.9 x 10⁻⁶ m/m C

Temperature per ASTM C113 / C865	Linear Change per ASTM C113 / C179	Cold MOR		CCS		Hot MOR	
		per ASTM C133 psi	MPa	per ASTM C133 psi	MPa	per ASTM C583 psi	MPa
230 F / 110 C	0.0%	2000	13.8	8000	55		
1000 F / 540 C	-0.2%	1500	10.3		0		0.0
1500 F / 815 C	-0.3%	1600	11.0	8000	55	2000	13.8
2000 F / 1090 C	-0.4%	2100	14.5		0	2100	14.5
2500 F / 1370 C	1.0%	3100	21.4		0		0.0

Other Data

Heat Up Guide

Schedule B

ASTM Class

C 401 Class D

Regular Castable

Note:

All data are averaged results of ASTM tests (where applicable) on laboratory gunned 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.