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Plico Refractories

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Technical Data Sheet

Plico Shotcrete LC SiC 60 KK

Product Number 15264

Date 2/10/2014

Product Description

A 60% SiC, high strength, low cement, shotcrete.

Service limit - 2800°F 1537 °C

Std. package 55 # / 25 kg Bag

Density to place 154 pcf 2,467 kg/m³

Water range per std. package:

Density in service 154 pcf 2,467 kg/m³

Casting to qts 0 to 0 l

Min time before firing 16 hr

Pumping 1.80 to 2.00 qts 1.70 to 1.89 l

Chemistry % (calcined)

Al ₂ O ₃	22.3	P ₂ O ₅	
SiO ₂	13.1	Alk.	0.2
Fe ₂ O ₃	0.4	MgO	0.1
CaO	1.9	SiC	61.3
TiO ₂	0.5	ZrO ₂	
		Other	

Thermal Conductivity

	btu*in/hr*ff ² *°F	w/m°C
500F / 260C	39.9	5.74
1000F / 540C	37.8	5.44
1500F / 815C	36.7	5.28
2000F / 1090C	40.1	5.77

Abrasion Loss

per ASTM C 704
after 1500 F

9 cc

Coefficient of Thermal Expansion
(reversible)

3.1 x 10⁻⁶ in/in F

5.5 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%	1700	11.7	7500	52		
1500 F / 815 C	-0.2%	2000	13.8	8000	55	2800	19.3
2000 F / 1090C	-0.3%	2900	20.0		0	3500	24.1
2500 F / 1370 C	0.4%	3800	26.2		0	500	3.4
			0.0		0		0.0

Other Data

Heat Up Guide

Schedule C or C-Linear

ASTM Class

C 401 Class D

Low Cement Castable

Note:

All data are averaged results of ASTM tests (where applicable) on laboratory shotcreted 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 Plicobrico representative to make sure you have the most current data.