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Technical Data Sheet Pli-Shot HyMOR SiC 80 KK

Product # 15458

Available Internationally As:

Plico Shotcrete LC SiC 80 KK

Product Description:

An 80% silicon carbide based, low cement castable designed for shotcrete application.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 6 months

Service Limit: 2800 °F 1540 °C

Contact Limit: N/A °F N/A °C

Bulk Density - In Service: 156 pcf 2499 kg/m³

Bulk Density - To Place: 156 pcf 2499 kg/m³

Minimum Time To Firing: 16 hr

Abrasion Loss after 1500°F / 815°C per ASTM C704

10 cc

Chemistry (calcined) %					
Al ₂ O ₃	12.1	Alk	0.2	MgO	0.1
SiO ₂	7.1	TiO ₂	0.2	ZrO ₂	
CaO	2.1	P ₂ O ₅		Other	
Fe ₂ O ₃	0.2	SiC	77.9		

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min			
	max			
Pumping	min	7.1	1.9	1.8
	max	8.1	2.1	2.0

Coefficient of Thermal Expansion (reversible):

3.3 x 10⁻⁶ in/in/°F / 5.9 x 10⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	50.9	7.3
1000°F / 540°C	50.4	7.3
1500°F / 815°C	50.3	7.2
2000°F / 1090°C	50.4	7.3

Temperature		Linear Change% per ASTM C113	CCS per ASTM C133		Cold MOR per ASTM C133		Hot MOR per ASTM C583	
°F	°C		psi	MPa	psi	MPa	psi	MPa
230	110	0.0	6000	41.0	1400	9.7		
1500	820	-0.2	7500	52.0	1800	12.4	2400	16.6
1800	980	-0.3			2200	15.2	3000	20.7
2000	1090	-0.5			2700	18.6		

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule C or C-Linear

ASTM Class:

Low Cement Castable

Refractory material should be stored in a cool, dry environment.

Note: All data are averaged results of ASTM tests (where applicable) on laboratory 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 and/or testing changes. Please consult your Plibrico representative to make sure you have the most current data.