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Technical Data Sheet Pli-Shot HyMOR CL 5Z-F KK

Product # 15410

Available Internationally As: Plico Shotcrete LC CL 5Z-F KK

Product Description:

A super duty low cement castable for casting or shotcrete application. Formulated for resistance to alkali attack in cement kiln preheater applications.

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: 135 pcf 2163 kg/m³

Bulk Density - To Place: 135 pcf 2163 kg/m³

Minimum Time To Firing: 16 hr

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

12 cc

Chemistry (calcined) %					
Al ₂ O ₃	46.4	Alk	0.6	MgO	0.1
SiO ₂	44.5	TiO ₂	1.7	ZrO ₂	3.3
CaO	2.5	P ₂ O ₅		Other	
Fe ₂ O ₃	0.8	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min	6.8	1.8	1.7
	max	7.9	2.1	2.0
Pumping	min	7.2	1.9	1.8
	max	8.7	2.3	2.2

Coefficient of Thermal Expansion (reversible):

2.9 x 10⁻⁶ in/in/°F / 5.2 x 10⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	10.5	1.5
1000°F / 540°C	11.2	1.6
1500°F / 815°C	11.9	1.7
2000°F / 1090°C	12.7	1.8

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	5800	40.0	1300	9.0		
1500	820	-0.2	5700	39.0	1200	8.3	1800	12.4
2000	1090	-0.3			1400	9.7	1900	13.1
2500	1370	-0.1			1800	12.4		

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule C or C-Linear

ASTM Class: C 401 Class D 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.