



Plibrico Company, LLC

1935 Techny Road - Unit 16
 Northbrook, IL 60062
 (312) 337-9000
 www.plibrico.com

Technical Data Sheet Pli-Shot HyMOR 31BX KK

Product # 15412

Available Internationally As:

Plico Shotcrete LC 31BX KK

Product Description:

A slag resistant, 70% alumina low cement castable for shotcrete application. Advance data.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 6 months

Service Limit: 3100 °F 1700 °C

Contact Limit: N/A °F N/A °C

Bulk Density - In Service: 160 pcf 2563 kg/m³

Bulk Density - To Place: 160 pcf 2563 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	67.6	Alk	0.3	MgO	0.2
SiO ₂	26.1	TiO ₂	2.2	ZrO ₂	
CaO	2.5	P ₂ O ₅		Other	
Fe ₂ O ₃	1.0	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min			
	max			
Pumping	min	6.2	1.6	1.6
	max	7.2	1.9	1.8

Coefficient of Thermal Expansion (reversible):

4.1 x 10⁻⁶ in/in/°F / 7.4 x 10⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	11.4	1.6
1000°F / 540°C	11.1	1.6
1500°F / 815°C	11.3	1.6
2000°F / 1090°C	11.8	1.7

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	8500	59.0	1800	12.4		
1500	820	-0.2	6500	45.0	2200	15.2	3000	20.7
2000	1090	-0.4			2400	16.6	3200	22.1
2500	1370	0.2			2800	19.3	650	4.5

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule C or C-Linear

ASTM Class: C 401 Class F

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.