



# Plibrico Company, LLC

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

# Technical Data Sheet Pli-Shot HyMOR 3100 KK

Product # 15248

Available Internationally As:

Plico Shotcrete LC 3100 KK

### Product Description:

An 80% alumina, bauxite based, low cement castable designed for shotcrete application.

**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:** 164 pcf 2627 kg/m<sup>3</sup>

**Bulk Density - To Place:** 164 pcf 2627 kg/m<sup>3</sup>

**Minimum Time To Firing:** 16 hr

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

10 cc

Chemistry (calcined) %					
Al <sub>2</sub> O <sub>3</sub>	74.1	Alk	0.2	MgO	0.1
SiO <sub>2</sub>	20.4	TiO <sub>2</sub>	1.4	ZrO <sub>2</sub>	
CaO	2.3	P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	1.3	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min			
	max			
Pumping	min	5.9	1.6	1.5
	max	6.9	1.8	1.7

**Coefficient of Thermal Expansion (reversible):**

4.3 x 10<sup>-6</sup> in/in/°F / 7.7 x 10<sup>-6</sup> mm/mm/°C

Thermal Conductivity	btu*in/hr*ft <sup>2</sup> *°F	W/m°C
500°F / 260°C	14.1	2.0
1000°F / 540°C	13.6	2.0
1500°F / 815°C	13.6	2.0
2000°F / 1090°C	14.1	2.0

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	-0.1	6000	41.0	1800	12.4		
1500	820	-0.3	7000	48.0	2000	13.8	2900	20.0
2000	1090	-0.4			2300	15.9	3200	22.1
2500	1370	0.7			2000	13.8	700	4.8

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.