



# Plibrico Company, LLC

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

# Technical Data Sheet Pli-Shot HyREZIST 3000 KK

Product # 15251

Available Internationally As: Plico Shotcrete HyREZIST

### Product Description:

Pli-shot HyREZIST 3000 KK was designed to improve installation characteristics such as pumpability, working time and rebound in shotcrete applications. Physical characteristics include excellent cold and hot strength from room temperature through intermediate temperatures (<2000°F), consistent abrasion resistance though the same range, and a low iron content for use in reducing environments.

**Standard Packaging:** 55 # / 25 kg Bag

**Shelf Life:** 6 months

**Service Limit:** 3000 °F 1650 °C

**Contact Limit:** N/A °F N/A °C

**Bulk Density - In Service:** 130 pcf 2083 kg/m<sup>3</sup>

**Bulk Density - To Place:** 130 pcf 2083 kg/m<sup>3</sup>

**Minimum Time To Firing:** 24 hr

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

12 cc

Chemistry (calcined) %					
Al <sub>2</sub> O <sub>3</sub>	59.2	Alk	0.5	MgO	0.1
SiO <sub>2</sub>	33.6	TiO <sub>2</sub>	1.5	ZrO <sub>2</sub>	
CaO	4.1	P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	0.9	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min			
	max			
Pumping	min	9.1	2.4	2.3
	max	10.6	2.8	2.7

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

3.4 x 10<sup>-6</sup> in/in/°F / 6.1 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	8.7	1.3
1000°F / 540°C	9.1	1.3
1500°F / 815°C	9.6	1.4
2000°F / 1090°C	10.2	1.5

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	7000	48.0	1300	9.0		
1500	820	-0.3	7500	52.0	1100	7.6	2000	13.8
2000	1090	-0.5			1200	8.3	1700	11.7
2500	1370	-0.7					300	2.1

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule C or C-Linear

ASTM Class: C 401 Class E Regular 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.