



Plibrico Company, LLC

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

Technical Data Sheet Plicast HyREZIST 3000 KK

Product # 14099

Available Internationally As: Plico Castable HyREZIST 3000 KK

Product Description:

A low iron, high strength, abrasion resistant castable which may be vib cast, cast, or pumped.

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: 135 pcf 2163 kg/m³

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

Minimum Time To Firing: 24 hr

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

9 cc

Chemistry (calcined) %					
Al ₂ O ₃	56.1	Alk	0.6	MgO	0.1
SiO ₂	36.7	TiO ₂	1.5	ZrO ₂	
CaO	4.1	P ₂ O ₅		Other	
Fe ₂ O ₃	0.8	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min	8.6	2.3	2.2
	max	9.2	2.4	2.3
Casting	min	9.2	2.4	2.3
	max	9.8	2.6	2.5
Pumping	min	9.6	2.5	2.4
	max	10.6	2.8	2.7

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	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	0.0	9000	62.0	2000	13.8		
1500	820	-0.3	9000	62.0	1850	12.8	2200	15.2
2000	1090	-0.4			1800	12.4	1800	12.4
2500	1370	-0.7			2400	16.6	450	3.1
3000	1650	1.1			3000	20.7		

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.