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Technical Data Sheet

Plicast HyREZIST 3000 C KK

Product # 14154

Available Internationally As: Plico Castable HyREZIST 3000

Product Description:

A low iron, high strength, coarse grain, abrasion resistant castable.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: months

Service Limit: 3000 °F 1650 °C

Contact Limit: N/A °F N/A °C

Bulk Density - In Service: 134 pcf 2147 kg/m³

Bulk Density - To Place: 134 pcf 2147 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	55.2	Alk	0.1	MgO	0.0
SiO ₂	37.1	TiO ₂	1.5	ZrO ₂	
CaO	4.2	P ₂ O ₅		Other	
Fe ₂ O ₃	0.1	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min	9.8	2.6	2.5
	max	11.0	2.9	2.8
Pumping	min			
	max			

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	-0.1	9000	62.0	1400	9.7		
1000	540	-0.3	7500	52.0	1450	10.0		
1500	820	-0.5			1450	10.0	2400	16.6
2000	1090	-0.6			1000	6.9	1500	10.3
2500	1370	-0.9			1600	11.0	400	2.8

Other Data:

Release Date: 30 Nov 2016

Heat Up Guide: Schedule C or C-Linear

ASTM Class: C 401 Class E

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.