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Technical Data Sheet Plicast Al-Rezist 70 KK

Product # 3294

Available Internationally As:

Plico Castable Al-Rezist 70 KK

Product Description:

A 70% alumina, mullite based, low cement castable with an advanced multi-component additive system. Plicast Al-Rezist 70 offers excellent aluminum resistance at elevated temperatures.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 6 months

Service Limit: 3000 °F 1650 °C

Contact Limit: 1800 °F 982 °C

Bulk Density - In Service: 163 pcf 2611 kg/m³

Bulk Density - To Place: 163 pcf 2611 kg/m³

Minimum Time To Firing: 16 hr

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

8 cc

Chemistry (calcined) %					
Al ₂ O ₃	68.4	Alk	0.2	MgO	0.1
SiO ₂	19.6	TiO ₂	1.2	ZrO ₂	
CaO	2.5	P ₂ O ₅		Other	1.0
Fe ₂ O ₃	1.0	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min	5.6	1.5	1.4
	max	6.2	1.6	1.6
Casting	min	6.2	1.6	1.6
	max	6.8	1.8	1.7
Pumping	min	6.6	1.7	1.7
	max	7.3	1.9	1.8

Coefficient of Thermal Expansion (reversible):

4.0 x 10⁻⁶ in/in/°F / 7.2 x 10⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	11.1	1.60
1000°F / 540°C	10.6	1.53
1500°F / 815°C	10.5	1.51
2000°F / 1090°C	10.6	1.53

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	6620	46.0	1702	11.7		
1000	540							
1500	820	-0.2	7420	51.2	1129	7.8	2422	16.7
1800	980	-0.2					1350	9.3
2000	1090	-0.3					1300	9.0

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule AT AS or AT AS Linear

ASTM Class: C 401 Class E

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.