



Plibrico Company, LLC

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Technical Data Sheet

Plibrico 68-S

Product # 10037

Available Internationally As:

Plico 68-S

Product Description:

Plibrico 68 S is mullite based, phosphate bond, plastic refractory. Product attributes include high hot strength, good refractoriness under load (RUL), good volume stability through its service temperature range, excellent abrasion resistance, good slag resistance, and non-wetting to aluminum. Plibrico 68 S is available in standard, stiff and soft consistencies to conform with installation and storage requirements.

Standard Packaging: 55 # / 25 kg Carton

Shelf Life: 6 months

Service Limit: 3100 °F 1700 °C

Contact Limit: N/A °F N/A °C

Bulk Density - In Service: 152 pcf 2435 kg/m³

Bulk Density - To Place: 167 pcf 2675 kg/m³

Minimum Time To Firing: 0 hr

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

7 cc

Chemistry (calcined) %					
Al ₂ O ₃	67.8	Alk	0.1	MgO	0.2
SiO ₂	26.9	TiO ₂	1.3	ZrO ₂	
CaO	0.1	P ₂ O ₅	2.7	Other	
Fe ₂ O ₃	0.8	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min			
	max			
Pumping	min			
	max			

Coefficient of Thermal Expansion (reversible):

3.7 x 10⁻⁶ in/in/°F / 6.7 x 10⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	8.1	1.17
1000°F / 540°C	8.3	1.20
1500°F / 815°C	9.1	1.31
2000°F / 1090°C	10.5	1.51

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	-0.4	2000	14.0	1500	10.3		
1500	820	-0.5	6000	41.0	1600	11.0	2200	15.2
2000	1090	-0.5			2100	14.5	1800	12.4
2500	1370	-0.2			2400	16.6	1500	10.3
3000	1650	0.6			3350	23.1		

Other Data: Material ordered in either Stiff (SF), Standard (SD), or Export (EX) workability. PREVENT MATERIAL FROM FREEZING: During cold weather this material must be shipped and stored in a warm place to prevent freezing. In warm weather, store in a cool dry place to prevent drying out.

Release Date: 1 Aug 2019

Heat Up Guide: Schedule A

ASTM Class: C 673 70% Alumina
 Plastic Refractory

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.