

# **Technical Data Sheet**

## Plibrico SR-68

Product # 10068

Available Internationally As:

Plico SR-68

#### **Product Description:**

A 70% alumina, mullite based, soft, fine grained phosphate bonded plastic designed for thin applications and to patch and repair existing linings. Non wetting to aluminum alloys.

Standard Packaging: 55 # / 25 kg Carton

Shelf Life: 6 months

Service Limit:  $3100 \,^{\circ}\text{F}$   $_{1700 \,^{\circ}\text{C}}$ Contact Limit:  $N/A \,^{\circ}\text{F}$   $N/A \,^{\circ}\text{C}$ 

Bulk Density - In Service: 150 pcf 2403 kg/m<sup>3</sup>

Bulk Density - To Place: 165 pcf 2643 kg/m<sup>3</sup>

Minimum Time To Firing: 0 hr

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

### Abrasion Loss after 1500°F / 815°C

per ASTM C704

7 cc

Chemistry (calcined) %						
Al <sub>2</sub> O <sub>3</sub>	67.5	Alk	0.1	MgO	0.2	
SiO <sub>2</sub>	27.2	TiO <sub>2</sub>	1.4	ZrO <sub>2</sub>		
CaO	0.1	P <sub>2</sub> O <sub>5</sub>	2.8	Other		
Fe <sub>2</sub> O <sub>3</sub>	0.8	SiC				

## Coefficient of Thermal Expansion (reversable):

 $3.7 \times 10^{-6} \text{ in/in/}^{\circ}\text{F} / 6.7 \times 10^{-6} \text{ mm/mm/}^{\circ}\text{C}$ 

Thermal Conductivity	btu*in/hr*ft²*°F	W/m°C		
500°F / 260°C	8.1	1.17		
1000°F / <i>540</i> °C	8.3	1.20		
1500°F / <i>815</i> °C	9.1	1.31		
2000°F / 1090°C	10.5	1.51		

Temperature		Linear	CCS per ASTM C133		Cold MOR per ASTM C133		Hot MOR per ASTM C583	
°F	°C	Change% per ASTM C113	psi	MPa	psi	MPa	psi	MPa
230	110	-0.8	2800	19.0	1200	8.3		
1500	820	-0.6	4200	29.0	1600	11.0	3000	20.7
2000	1090	-0.5			2000	13.8	1000	6.9
2500	1370	-0.2			3000	20.7	700	4.8
		-1.5			4000	27.6		

Other Data: 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.