



Plibrico Company, LLC

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Technical Data Sheet

Plibrico 80 AB

Product # 10016

Available Internationally As:

Plico 80 AB

Product Description:

Plibrico 80 AB utilizes a bauxite aggregate in an alumina fortified air bonding matrix. Product attributes include good volume stability at high temperatures, good thermal shock and crack resistance, moderate slag resistance, and contains an air bonding agent for better low temperature strength and shrinkage control.

Standard Packaging: 55 # / 25 kg Carton

Shelf Life: 12 months

Service Limit: 3200 °F 1760 °C

Contact Limit: N/A °F N/A °C

Bulk Density - In Service: 157 pcf 2515 kg/m³

Bulk Density - To Place: 170 pcf 2723 kg/m³

Minimum Time To Firing: 0 hr

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

N/A cc

Chemistry (calcined) %					
Al ₂ O ₃	78.1	Alk	0.5	MgO	0.1
SiO ₂	17.6	TiO ₂	1.7	ZrO ₂	
CaO	0.1	P ₂ O ₅		Other	
Fe ₂ O ₃	1.7	SiC			

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

Coefficient of Thermal Expansion (reversible):

4.2 x 10⁻⁶ in/in/°F / 7.6 x 10⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	10.2	1.5
1000°F / 540°C	9.2	1.3
1500°F / 815°C	10.0	1.4
2000°F / 1090°C	11.5	1.7

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	-0.7	550	4.0	275	1.9		
1500	820	-0.8	850	6.0	300	2.1	750	5.2
2000	1090	-1.0			400	2.8	900	6.2
2500	1370	0.2			550	3.8	250	1.7
3000	1650	1.3			1100	7.6		

Other Data: Material ordered in either Stiff (SF), Standard (SD), or Export (EX) workability.

Release Date: 1 Aug 2019

Heat Up Guide: Schedule A

ASTM Class: C 673 80% 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.