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Technical Data Sheet

Plistix ABR

Product # 14265

Available Internationally As:

Plico Stix ABR

Product Description:

Plistix ABR is an ultra abrasion-resistant castable refractory. This castable utilizes a hybrid calcium aluminate/phosphate bond and is designed to yield high strength and abrasion resistance over a wide temperature range. Product advantages include low uniform abrasion loss of 3cc or less from room temperature to over 2000°F, high crushing strength and hot MOR, and a single component system.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 3 months

Service Limit: 2500 °F 1370 °C

Contact Limit: N/A °F N/A °C

Bulk Density - In Service: 174 pcf 2787 kg/m³

Bulk Density - To Place: 174 pcf 2787 kg/m³

Minimum Time To Firing: 8 hr

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

3 cc

Chemistry (calcined) %					
Al ₂ O ₃	83.4	Alk	0.2	MgO	0.1
SiO ₂	10.3	TiO ₂	1.0	ZrO ₂	
CaO	2.2	P ₂ O ₅	1.7	Other	
Fe ₂ O ₃	1.1	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min	5.0	1.3	1.3
	max	5.5	1.5	1.4
Casting	min	5.8	1.5	1.5
	max	6.2	1.6	1.6
Pumping	min			
	max			

Coefficient of Thermal Expansion (reversible):

4.8 x 10⁻⁶ in/in/°F / 8.6 x 10⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	11.9	1.7
1000°F / 540°C	12.4	1.8
1500°F / 815°C	12.8	1.8
2000°F / 1090°C	13.0	1.9

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	11000	76.0	2800	19.3		
1500	820	-0.5	12500	86.0	3300	22.8	4000	27.6
1800	980	-0.6					2500	17.2
2000	1090	-0.7					2500	17.2

Other Data: Abrasion Loss - after drying 4.0 cc, after 500F 3.5 cc, after 1000F 3.3 cc

Release Date: 1 Aug 2019

Heat Up Guide: Schedule C or C-Linear

ASTM Class:

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.