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Technical Data Sheet Plicast Al-Tuff 85 BF C

Product # 3269

Available Internationally As:

Plico Castable A-T 85 BF C

Product Description:

A brown fused alumina based, non-wetting, low cement castable. May be vibration cast, cast or pumped.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 6 months

Service Limit: 3100 °F 1700 °C

Contact Limit: 1700 °F 927 °C

Bulk Density - In Service: 184 pcf 2948 kg/m³

Bulk Density - To Place: 184 pcf 2948 kg/m³

Minimum Time To Firing: 16 hr

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

< 5 cc

Chemistry (calcined) %					
Al ₂ O ₃	86.4	Alk	0.2	MgO	0.1
SiO ₂	9.6	TiO ₂	1.7	ZrO ₂	
CaO	2.0	P ₂ O ₅		Other	
Fe ₂ O ₃	0.2	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min	4.5	1.2	1.1
	max	6.0	1.6	1.5
Pumping	min			
	max			

Coefficient of Thermal Expansion (reversible):

4.3 x 10⁻⁶ in/in/°F / 7.7 x 10⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	14.1	2.03
1000°F / 540°C	13.6	1.96
1500°F / 815°C	13.6	1.96
2000°F / 1090°C	14.1	2.03

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	2470	17.0	10000	69.0		
1500	820	-0.4	3260	22.0	12000	82.8	3500	24.1

Other Data:

Release Date: 1 May 2020

Heat Up Guide: Schedule C or C-Linear

ASTM Class: C 401 Class F

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.