Plibrico Company, LLC
1935 Techny Road - Unit 16
Northbrook, IL 60062
(312) 337-9000
www.plibrico.com

Technical Data Sheet

Plicast Al-Tuff Airlite 25 C/G

Product # 3317

Available Internationally As: Plico Castable A-T Airlite 25 C/G

Product Description:
A lightweight, insulating castable. Engineered as a "Liquid Board", this materials, low thermal conductivity makes the material a suitable alternative to insulation blocks, allowing it to be cast or gunned into place to conform to complex geometries. Non-wetting to aluminum.

Gunned information reflected below, Cast specific information can be found in Other Data Section.

Standard Packaging: 40 # / *18 kg* Bag

Shelf Life: 6 months

Service Limit: 2000 °F *1090 °C*

Contact Limit: N/A °F *N/A °C*

Bulk Density - In Service: 35 pcf *561 kg/m³*

Bulk Density - To Place: 35 pcf *561 kg/m³*

Minimum Time To Firing: 24 hr

Abrasion Loss after 1500°F / *815°C*
per ASTM C704
N/A *cc*

Chemistry (calcined) %					
Al_2O_3	33.5	Alk	2.8	MgO	1.0
SiO_2	37.0	TiO_2	1.1	ZrO_2	
CaO	20.0	P_2O_5		Other	
Fe_2O_3	4.6	SiC			

Water Range Per Standard Package		%	Quarts	*Liters*
Vib Casting	min			
	max			
Casting	min	140.0	26.9	*25.5*
	max	150.0	28.8	*27.3*
Pumping	min			
	max			

Coefficient of Thermal Expansion (reversable):

1.8 x 10^{-6} in/in/°F / *3.2 x 10^{-6} mm/mm/°C*

Thermal Conductivity	btu*in/hr*ft²*°F	*W/m°C*
500°F / *260°C*	1.1	*0.16*
1000°F / *540°C*	1.2	*0.17*
1500°F / *815°C*	1.3	*0.19*
2000°F / *1090°C*	1.5	*0.22*

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	114	*1.0*				
1500	*820*	-3.9	120	*1.0*				
1800	*980*	-4.9						
2000	*1090*	-5.5						

Other Data: **Cast Data:** Bulk Density: 25pcf, CCS: 230°F = 68psi, 1500°F = 88psi
Thermal Conductivity (btu*in/hr*ft2*°F): 500°F = 0.8, 1000°F = 1.0, 1500°F = 1.1, 2000°F = 1.3

Release/Revision Date: 1 Nov 2024

Heat Up Guide: Schedule B

ASTM Class: C 401 Class N
Insulating 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.