



Plibrico Company, LLC

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

Technical Data Sheet Plicast Al-Shield 2765 KK

Product # 16903

Available Internationally As: Plico Castable A-S 2765KK

Product Description:

Plicast Al-Shield 2765 KK is a 56% alumina low cement castable with a modified matrix incorporating a high temperature aluminum resistant additive system. The product meets aluminum contact resistance requirements at elevated temperatures. Plicast Al-Shield 2765 KK has product advantages such as good aluminum reaction/wetting resistance to 2000°F, relatively high constant hot MOR from 1500° to 2000°F as compared to other aluminum contact castables, excellent

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 6 months

Service Limit: 2800 °F 1540 °C

Contact Limit: 2000 °F 1093 °C

Bulk Density - In Service: 162 pcf 2595 kg/m³

Bulk Density - To Place: 162 pcf 2595 kg/m³

Minimum Time To Firing: 16 hr

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

8 cc

Chemistry (calcined) %					
Al ₂ O ₃	56.6	Alk	0.1	MgO	0.1
SiO ₂	25.3	TiO ₂	1.3	ZrO ₂	6.4
CaO	1.8	P ₂ O ₅		Other	7.4
Fe ₂ O ₃	1.0	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min	4.8	1.3	1.2
	max	6.4	1.7	1.6
Pumping	min	5.6	1.5	1.4
	max	7.6	2.0	1.9

Coefficient of Thermal Expansion (reversible):	
3.4	x 10 ⁻⁶ in/in/°F / 6.1 x 10 ⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	12.0	1.7
1000°F / 540°C	13.0	1.9
1500°F / 815°C	13.9	2.0
2000°F / 1090°C	14.7	2.1

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	0.0	8500	59.0	2100	14.5		
1500	820	-0.2	8000	55.0	2000	13.8	3200	22.1
1800	980	-0.3			1800	12.4	3300	22.8
2000	1090	-0.4			1750	12.1	2100	14.5
2300	1260	-0.6					1600	11.0

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule AT AS or AT AS

ASTM Class: C 401 Class D 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.