



# Plibrico Company, LLC

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# Technical Data Sheet Pligun Al-Shield 65 KK

Product # 16301

Available Internationally As:

Plico Gun Mix A-S 65 KK

### Product Description:

Pligun Al-Shield 65 KK is a mullite based dry gunning mix with a high temperature aluminum resistant additive system. Product advantages include good aluminum reaction/wetting resistance to 1800°F, excellent hot and cold gunning characteristics, good water range, reduced rebound, excellent adherence/bonding, and good hot strength.

**Standard Packaging:** 55 # / 25 kg Bag

**Shelf Life:** 6 months

**Service Limit:** 2800 °F 1540 °C

**Contact Limit:** 1800 °F 982 °C

**Bulk Density - In Service:** 140 pcf 2243 kg/m<sup>3</sup>

**Bulk Density - To Place:** 140 pcf 2243 kg/m<sup>3</sup>

**Minimum Time To Firing:** 16 hr

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

N/A cc

Chemistry (calcined) %					
Al <sub>2</sub> O <sub>3</sub>	62.1	Alk	0.2	MgO	0.1
SiO <sub>2</sub>	24.1	TiO <sub>2</sub>	1.6	ZrO <sub>2</sub>	
CaO	4.7	P <sub>2</sub> O <sub>5</sub>		Other	5.9
Fe <sub>2</sub> O <sub>3</sub>	1.2	SiC			

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

**Coefficient of Thermal Expansion (reversible):**

3.4 x 10<sup>-6</sup> in/in/°F / 6.1 x 10<sup>-6</sup> mm/mm/°C

Thermal Conductivity	btu*in/hr*ft <sup>2</sup> *°F	W/m°C
500°F / 260°C	7.7	1.1
1000°F / 540°C	7.8	1.1
1500°F / 815°C	8.0	1.2
2000°F / 1090°C	8.4	1.2

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	2600	18.0	650	4.5		
1000	540						600	4.1
1500	820	-0.3	2500	17.2	600	4.1	650	4.5
1800	980						700	4.8
2000	1090	-0.5			750	5.2		

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule B

ASTM Class: C 401 Class F Regular 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.