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**REFRACTORY PRODUCT  
 DATA SHEET**

Data date: 5/24/2007

Product # 16903

**PLICAST AL-SHIELD 2765 KK**

**Product Description:**

A high strength, low cement castable with excellent molten aluminum resistance which maintains hot strength at elevated temperatures.

**Recommended Aluminum Applications**

Aluminum melting & holding furnaces: lower sidewalls, hearths, ramps, and sills. Transfer ladles. OTR ladle bottoms. Troughs & launders. Tap out block.

<b>Max. Service Limit::</b>	2800 F / 1540 C	<b>Density:</b>	<b>To Place</b>	<b>In Service</b>
<b>Aluminum Contact Limit:</b>	2000 F / 1090 C		162 pcf	162 pcf
			2594 kg/m <sup>3</sup>	2594 kg/m <sup>3</sup>
<b>Packaging:</b>	50 lb / 22.7 kg Bag			
<b>Required Water:</b>	1.5 qt. / 1.4 l per bag	<b>Min. Time Before Firing:</b>	24 Hrs.	

**Chemistry - % (calcined)**

Al <sub>2</sub> O <sub>3</sub> 56.5	CaO 1.8	SiC	
SiO <sub>2</sub> 25.2	MgO 0.1	ZrO <sub>2</sub> 6.4	
Fe <sub>2</sub> O <sub>3</sub> 1	Alk. 0.1	Other 7.6	
TiO <sub>2</sub> 1.3	P <sub>2</sub> O <sub>5</sub>		

**Abrasion Loss**

(ASTM C704)  
 1500 F / 815 C  
 8 cc

**Thermal Conductivity**

	btu*in/hr*ft <sup>2</sup> *F	w / m*C
500 F / 260 C	12	1.7
1000 F / 540 C	13	1.9
1500 F / 815 C	13.9	2
2000 F / 1095 C	14.7	2.1

Temperature	Linear Change - % ASTM C113	Cold MOR		Hot MOR		CCS	
		psi / MPa	ASTM C133	psi / MPa	ASTM C583	psi / MPa	ASTM C133
230 F / 110 C	0	2000	13.8			12000	83
1000 F / 540 C	-0.1	2000	13.8	3500	24.1		0
1500 F / 815 C	-0.2	2100	14.5	3900	26.9	12000	83
1800 F / 980 C	-0.3	2000	13.8	2800	19.3		0
2000 F / 1095 C	-0.3	1800	12.4	2400	16.6		0
			0		0		0

Bake out: Schedule AT-AS    ASTM classification: D    Low-Cement Castable

Note: Data should not be used for specification purposes. Product data is periodically updated to reflect product / raw material / process changes. Please consult with your Plibrico representative to insure you have the most current data.

All data are averaged results of laboratory ASTM tests on laboratory cast specimens. Reasonable variations can be expected.

Thermal conductivity will vary depending upon measurement method, installed density, and thermal treatment.

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