



# REFRACTORY PRODUCT DATA SHEET

Data date: 8/17/2006

Product # 16510

## PLICAST AL-TUFF 27 C

**Product Description:**

An intermediate duty, aluminum resistant, high strength, coarse grain refractory castable.

**Recommended Aluminum Applications**

Aluminum melting & holding furnaces: sub-hearths. Floor splash pads.

**Max. Service Limit::** 2500 F / 1370 C

**Aluminum Contact Limit:** 1700 F / 925 C

**Packaging:** 50 lb / 22.7 kg Bag

**Required Water:** 3 qt. / 2.8 l per bag

**Density: To Place**

132 pcf

2114 kg/m<sup>3</sup>

**In Service**

132 pcf

2114 kg/m<sup>3</sup>

**Min. Time Before Firing:** 24 Hrs.

**Chemistry - % (calined)**

Al <sub>2</sub> O <sub>3</sub> 44.6	CaO 13.8	SiC
SiO <sub>2</sub> 35.6	MgO 0.3	ZrO <sub>2</sub>
Fe <sub>2</sub> O <sub>3</sub> 3	Alk. 0.5	Other
TiO <sub>2</sub> 2.2	P <sub>2</sub> O <sub>5</sub>	

**Abrasion Loss**

(ASTM C704)  
1500 F / 815 C

NA cc

**Thermal Conductivity**

	btu*in/hr*ft <sup>2</sup> *F	w / m*C
500 F / 260 C	6.5	0.9
1000 F / 540 C	6.6	1
1500 F / 815 C	6.7	1
2000 F / 1095 C	6.9	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	-0.1	1050	7.2			5000	34
1000 F / 540 C	-0.2	325	2.2	300	2.1		0
1500 F / 815 C	-0.3	400	2.8	400	2.8	5000	34
		0		0			0
		0		0			0
		0		0			0

Bake out: Schedule B      ASTM classification: C      Regular 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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