



# PLIBRICO COMPANY LLC

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# REFRACTORY PRODUCT DATA SHEET

Data date: 8/17/2006

## PLICAST HyMOR 3100 SPECIAL KK

Product # 2428

### Product Description:

A 60% alumina, mullite based, low cement refractory castable.

<b>Max. Service Limit::</b>	3100 F / 1705 C	<b>Density:</b>	<b>To Place</b>	<b>In Service</b>
			155 pcf 2482 kg/m <sup>3</sup>	155 pcf 2482 kg/m <sup>3</sup>

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

**Required Water:** 1.5 qt. / 1.4 l per bag      **Min. Time Before Firing:** 24 Hrs.

### Chemistry - % (calcined)

Al <sub>2</sub> O <sub>3</sub> 61	CaO 1.6	SiC
SiO <sub>2</sub> 34.6	MgO 0.1	ZrO <sub>2</sub>
Fe <sub>2</sub> O <sub>3</sub> 0.9	Alk. 0.2	Other
TiO <sub>2</sub> 1.6	P <sub>2</sub> O <sub>5</sub>	

### Abrasion Loss

(ASTM C704)  
 1500 F / 815 C  
 6 cc

### Thermal Conductivity

	btu*in/hr*ft <sup>2</sup> *F	w / m*C
500 F / 260 C	10.7	1.5
1000 F / 540 C	11.3	1.6
1500 F / 815 C	12	1.7
2000 F / 1095 C	12.6	1.8

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	-0.2	2000	13.8	3000	20.7		0
1500 F / 815 C	-0.3	2700	18.6	3800	26.2	12000	83
2000 F / 1095 C	-0.4	3100	21.4	4200	29		0
2500 F / 1370 C	0.6	3800	26.2	1000	6.9		0
3000 F / 1650 C	0.4	3500	24.1		0		0

Bake out: Schedule C      ASTM classification: F      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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