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Technical Data Sheet**Plicast HyMOR 3100 Special KK**

Product Number 2428

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Product Description

A versatile high strength, mullite based low cement castable with excellent resistance to thermal shock/cycling. May be vibration cast, cast or pumped.

Service Limit - 3100°F 1,704. °C**Std. package** 55 # / 25 kg Bag**Density to place** 152 pcf 2,435 kg/m³**Water range per std. package:****Density in service** 152 pcf 2,435 kg/m³**Casting** 1.6 to 1.8 qts 1.6 to 1.7 l**Min Time before firing** 16 hr**Pumping** 1.9 to 2.0 qts 1.8 to 1.9 l**Chemistry % (calined)**

Al ₂ O ₃	61.1	P ₂ O ₅	
SiO ₂	34.7	Alk.	0.2
Fe ₂ O ₃	0.9	MgO	0.1
CaO	1.6	SiC	
TiO ₂	1.6	ZrO ₂	
Other			

Thermal Conductivity

	btu-in/hr-ft ² • F ^o	w/m°C
500F / 260C	10.7	1.54
1000F / 540C	11.3	1.62
1500F / 815C	12.0	1.72
2000F / 1090C	12.6	1.81

Abrasion Lossper ASTM C 704
after 1500 F

7 cc

**Coefficient of
Thermal Expansion**
(reversible)3.6 x 10⁻⁶ in/in F6.4 x 10⁻⁶ mm/m C

Temperature per ASTM C113 / C865	Linear Change per ASTM C113 / C179	Cold MOR		CCS		Hot MOR	
		per ASTM C133 psi	MPa	per ASTM C133 psi	MPa	per ASTM C583 psi	MPa
230 F / 110 C	0.0%	2000	13.8	7000	48		
1500 F / 815 C	-0.2%	2500	17.2	8500	59	3900	26.9
2000 F / 1090C	-0.3%	2800	19.3		0	3600	24.8
2500 F / 1370 C	0.5%	3000	20.7		0	1000	6.9
3000 F / 1650 C	0.4%	3200	22.1		0		0.0

Other Data**Heat Up Guide**

Schedule C or C-Linear

ASTM Class

C 401 Class F

Low Cement Castable

Note:

All data are averaged results of ASTM tests (where applicable) on laboratory cast 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 / testing changes. Please consult your Plibrico representative to make sure you have the most current data.