



# Plibrico Company, LLC

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# Technical Data Sheet Plicast HyMOR 98V KK

Product # 14240

Available Internationally As: Plico Castable LC 98V KK

### Product Description:

Plicast® HyMOR® 98V KK is an ultra-high alumina, low cement castable. This strong castable was developed with high purity alumina aggregate and contains essentially no silica or iron oxides. The low cement technology admixtures that when combined with vibration casting installation methods allows for water reduction. This yields higher densities, lower porosity, and better physical attributes.

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

**Shelf Life:** 6 months

**Service Limit:** 3400 °F 1870 °C

**Contact Limit:** N/A °F N/A °C

**Bulk Density - In Service:** 195 pcf 3124 kg/m<sup>3</sup>

**Bulk Density - To Place:** 195 pcf 3124 kg/m<sup>3</sup>

**Minimum Time To Firing:** 16 hr

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

9 cc

Chemistry (calcined) %				
Al <sub>2</sub> O <sub>3</sub>	97.9	Alk	0.4	MgO
SiO <sub>2</sub>	0.1	TiO <sub>2</sub>		ZrO <sub>2</sub>
CaO	1.6	P <sub>2</sub> O <sub>5</sub>		Other
Fe <sub>2</sub> O <sub>3</sub>		SiC		

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min	4.5	1.2	1.1
	max	5.3	1.4	1.3
Casting	min			
	max			
Pumping	min			
	max			

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

5.0 x 10<sup>-6</sup> in/in/°F / 9.0 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	22.0	3.2
1000°F / 540°C	21.0	3.0
1500°F / 815°C	21.0	3.0
2000°F / 1090°C	22.0	3.2

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	0.0	11000	76.0	2000	13.8		
2000	1090	-0.1			1200	8.3	1200	8.3
2500	1370	-0.2			3000	20.7	2000	13.8
2700	1480	0.5			4000	27.6		
3000	1650	0.1			3000	20.7		

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule C or C-Linear

ASTM Class: C 401 Class G Low Cement 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.