



# Plibrico Company, LLC

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# Technical Data Sheet Pliflow HyMOR 3100 KK

Product # 14804

Available Internationally As:

Plico Flow LC 3100 KK

### Product Description:

An 80% alumina, bauxite based, self leveling, low cement castable.

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

**Shelf Life:** 6 months

**Service Limit:** 3100 °F 1700 °C

**Contact Limit:** N/A °F N/A °C

**Bulk Density - In Service:** 165 pcf 2643 kg/m<sup>3</sup>

**Bulk Density - To Place:** 165 pcf 2643 kg/m<sup>3</sup>

**Minimum Time To Firing:** 24 hr

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

7 cc

Chemistry (calcined) %					
Al <sub>2</sub> O <sub>3</sub>	82.2	Alk	0.2	MgO	0.1
SiO <sub>2</sub>	12.3	TiO <sub>2</sub>	1.7	ZrO <sub>2</sub>	
CaO	1.5	P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	1.3	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min	5.6	1.5	1.4
	max	6.8	1.8	1.7
Pumping	min	6.0	1.6	1.5
	max	7.2	1.9	1.8

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

4.2 x 10<sup>-6</sup> in/in/°F / 7.6 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	14.1	2.0
1000°F / 540°C	13.6	2.0
1500°F / 815°C	13.6	2.0
2000°F / 1090°C	14.1	2.0

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	8000	55.0	1800	12.4		
1500	820	-0.2	9000	62.0	2200	15.2	2800	19.3
2000	1090	-0.3			2700	18.6	3100	21.4
2500	1370	0.1			3000	20.7	800	5.5
3000	1650	-0.4			3200	22.1		

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule C or C-Linear

ASTM Class: C 401 Class F 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.