



# Plibrico Company, LLC

1935 Techny Road - Unit 16  
 Northbrook, IL 60062  
 (312) 337-9000  
 www.plibrico.com

# Technical Data Sheet

## Plicast 36

Product # 14008

Available Internationally As:

Plico Castable 36

### Product Description:

A 60% alumina, mullite based, high strength castable.

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

**Shelf Life:** 9 months

**Service Limit:** 3100 °F 1700 °C

**Contact Limit:** N/A °F N/A °C

**Bulk Density - In Service:** 148 pcf 2371 kg/m<sup>3</sup>

**Bulk Density - To Place:** 148 pcf 2371 kg/m<sup>3</sup>

**Minimum Time To Firing:** 24 hr

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

N/A cc

### Chemistry (calcined) %

Al <sub>2</sub> O <sub>3</sub>	61.3	Alk	0.3	MgO	0.1
SiO <sub>2</sub>	31.9	TiO <sub>2</sub>	1.6	ZrO <sub>2</sub>	
CaO	4.0	P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	0.9	SiC			

### Coefficient of Thermal Expansion (reversible):

3.7 x 10<sup>-6</sup> in/in/°F / 6.7 x 10<sup>-6</sup> mm/mm/°C

Water Range Per Standard Package		%	Quarts	Liters
<b>Vib Casting</b>	min			
	max			
<b>Casting</b>	min	8.3	2.2	2.1
	max	9.4	2.5	2.4
<b>Pumping</b>	min			
	max			

Thermal Conductivity	btu*in/hr*ft <sup>2</sup> *°F	W/m°C
500°F / 260°C	8.6	1.2
1000°F / 540°C	8.7	1.3
1500°F / 815°C	8.9	1.3
2000°F / 1090°C	9.3	1.3

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	-0.1	6000	41.0	1000	6.9		
1500	820	-0.3	4500	31.0	800	5.5	900	6.2
2000	1090	-0.1			650	4.5	700	4.8
2500	1370	0.5			1000	6.9	400	2.8
3000	1650	1.4			2200	15.2		

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule B

ASTM Class: C 401 Class F Regular 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.