



# Plibrico Company, LLC

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# Technical Data Sheet

## Pli-Bric IFB 23

Product # 20230/20231

Available Internationally As:

Pli-Bric IFB 23

### Product Description:

A 2300°F insulating firebrick  
 Sizes available: 9" x 4.5" x 2.5" and 9" x 4.5" x 3"

<b>Standard Packaging:</b>	# /	kg	12/10 bricks/box
<b>Shelf Life:</b>		months	
<b>Service Limit:</b>	2300 °F	1260 °C	
<b>Contact Limit:</b>	N/A °F	N/A °C	
<b>Bulk Density - In Service:</b>	44 pcf	705 kg/m <sup>3</sup>	
<b>Bulk Density - To Place:</b>	44 pcf	705 kg/m <sup>3</sup>	
<b>Minimum Time To Firing:</b>	N/A		

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

N/A cc

Chemistry (calcined) %					
Al <sub>2</sub> O <sub>3</sub>	41.6	Alk	1.2	MgO	0.1
SiO <sub>2</sub>	54.5	TiO <sub>2</sub>	1.6	ZrO <sub>2</sub>	
CaO	0.1	P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	0.1	SiC			

Water Range Per Standard Package		%	Quarts	Liters
<b>Vib Casting</b>	min			
	max			
<b>Casting</b>	min			
	max			
<b>Pumping</b>	min			
	max			

### Coefficient of Thermal Expansion (reversible):

0.6 x 10<sup>-6</sup> in/in/°F / 1.1 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	1.6	0.23
1000°F / 540°C	2.0	0.29
1500°F / 815°C	2.4	0.35
2000°F / 1090°C	2.6	0.37

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
		0.0	140	1.0	115	0.8		

Other Data: Hot Load Deformation (ASTM C16) - % -0.5, @ 2000°F / 1090°C 10 psi load for 1.5 hr

Release Date: 1 Aug 2019

Heat Up Guide: N/A

ASTM Class: ASTM C155, 23

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.