



# Plibrico Company, LLC

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

# Technical Data Sheet Redline Firebrand

Product # 50102

Available Internationally As:

Redline Firebrand

### Product Description:

A medium aggregate, low duty fireclay castable which features good strengths at low temperatures. This material is specially formulated for use in wood burning stoves and fireplaces. It can be placed in situ or used in the manufacture of pre-cast shapes.

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

**Shelf Life:** 12 months

**Service Limit:** 1800 °F 980 °C

**Contact Limit:** N/A °F N/A °C

**Bulk Density - In Service:** 120 pcf 1922 kg/m<sup>3</sup>

**Bulk Density - To Place:** 120 pcf 1922 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>	34.4	Alk	0.7	MgO	0.8
SiO <sub>2</sub>	44.7	TiO <sub>2</sub>	1.8	ZrO <sub>2</sub>	
CaO	16.2	P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	1.4	SiC			

Water Range Per Standard Package		%	Quarts	Liters
<b>Vib Casting</b>	min	13.8	3.6	3.5
	max			
<b>Casting</b>	min	13.8	3.6	3.5
	max			
<b>Pumping</b>	min			
	max			

Coefficient of Thermal Expansion (reversible):	
x 10 <sup>-6</sup> in/in/°F	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		
1000°F / 540°C		
1500°F / 815°C		
2000°F / 1090°C		

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
250	120	-0.1	4300	30.0	930	6.4		
1000	540	-0.2			540	3.7		
1500	820	-0.4	1050	7.2	260	1.8		

Other Data:

Release Date: 1 Jun 2008

Heat Up Guide:

ASTM Class:

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.