



# Plibrico Company, LLC

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# Technical Data Sheet Redline Redflow 70

Product # 52111

Available Internationally As:

Redline Redflow 70

### Product Description:

This high purity mullite based castable exhibits excellent flow properties. This material can be pumped. Designed for applications where molten aluminum processing operations require high resistance to corrosion, high strength and abrasion resistance. Applications include upper sidewalls and roofs of aluminum melting furnaces.

**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

N/A cc

Chemistry (calcined) %					
Al <sub>2</sub> O <sub>3</sub>	70.7	Alk	0.2	MgO	0.1
SiO <sub>2</sub>	24.9	TiO <sub>2</sub>	1.2	ZrO <sub>2</sub>	
CaO	1.8	P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	0.9	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min	4.8	1.3	1.2
	max			
Casting	min	4.8	1.3	1.2
	max			
Pumping	min	5.7	1.5	1.4
	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	11.3	1.63
1000°F / 540°C	11.6	1.67
1500°F / 815°C	12.2	1.76
2000°F / 1090°C	12.9	1.86

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			2600	17.9		
1000	540	-0.2						
1500	820	-0.3			2550	17.6		
2000	1090	-0.6			2975	20.5		

Other Data:

Release Date: 1 Nov 2005

Heat Up Guide: Redline Schedule 1

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.