



# Plibrico Company, LLC

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# Technical Data Sheet Redline Redflow 80A

Product # 52209

Available Internationally As:

Redline Redflow 80A

### Product Description:

A high alumina, bauxite based, low cement castable designed for aluminum contact. It has high strengths, resistance to aluminum penetration and has good abrasion and erosion resistance. It's low porosity reduces penetration and reaction by molten metal as well as providing oxide resistance.

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

**Shelf Life:** 6 months

**Service Limit:** 3100 °F 1700 °C

**Contact Limit:** 1700 °F 927 °C

**Bulk Density - In Service:** 180 pcf 2884 kg/m<sup>3</sup>

**Bulk Density - To Place:** 180 pcf 2884 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>	78.6	Alk		MgO	0.1
SiO <sub>2</sub>	16.9	TiO <sub>2</sub>	0.6	ZrO <sub>2</sub>	
CaO	2.3	P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	0.5	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	5.5	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		
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	6500	45.0	2150	14.8		
1500	820	-0.1	9000	62.1	1710	11.8		
2500	1370	-0.0	8670	59.8	2155	14.9		

Other Data:

Release Date: 1 Mar 2016

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.