



# Plibrico Company, LLC

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# Technical Data Sheet Redline Redcast SC

Product # 52103

Available Internationally As:

Redline Redcast SC

### Product Description:

A high purity, mullite based low cement castable that contains a silicon carbide addition for increased abrasion and thermal shock resistance. It is designed for areas that are subjected to high degrees of impact and thermal shock from molten aluminum. This material can also be utilized in molten copper transfer troughs.

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

**Shelf Life:** 6 months

**Service Limit:** 3000 °F 1650 °C

**Contact Limit:** 1700 °F 927 °C

**Bulk Density - In Service:** 167 pcf 2675 kg/m<sup>3</sup>

**Bulk Density - To Place:** 167 pcf 2675 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>	64.4	Alk		MgO	0.1
SiO <sub>2</sub>	14.7	TiO <sub>2</sub>	1.1	ZrO <sub>2</sub>	
CaO	1.5	P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	0.7	SiC	17.0		

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			
	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	22.9	3.30
1000°F / 540°C	21.8	3.14
1500°F / 815°C	19.9	2.87
2000°F / 1090°C	17.8	2.56

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	7800	54.0	1900	13.1		
1000	540	-0.1			1855	12.8		
1500	820	-0.2			2135	14.7		
2000	1090	-0.2			2170	15.0		
3000	1650	-0.1			2700	18.6		

Other Data:

Release Date: 1 Jun 2005

Heat Up Guide: Redline Schedule 1

ASTM Class:

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.