



# Plibrico Company, LLC

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# Technical Data Sheet Redline Redcon 45A

Product # 51201

Available Internationally As:

Redline Redcon 45A

### Product Description:

This first quality, conventionally bonded castable was designed for application in the subhearth of aluminum melting and holding furnaces. It contains a non-wetting additive for molten aluminum resistance.

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

**Shelf Life:** 12 months

**Service Limit:** 2500 °F 1370 °C

**Contact Limit:** 1700 °F 927 °C

**Bulk Density - In Service:** 128 pcf 2051 kg/m<sup>3</sup>

**Bulk Density - To Place:** 128 pcf 2051 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>	45.0	Alk	0.9	MgO	0.3
SiO <sub>2</sub>	37.8	TiO <sub>2</sub>	1.2	ZrO <sub>2</sub>	
CaO	10.3	P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	3.1	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min	12.0	3.2	3.0
	max			
Casting	min	12.0	3.2	3.0
	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	3.9	0.56
1000°F / 540°C	4.7	0.68
1500°F / 815°C	5.7	0.82
2000°F / 1090°C	7.3	1.05

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	4800	33.0	1380	9.5		
1000	540	-0.2			610	4.2		
1500	820	-0.3	3500	24.1	790	5.4		
2000	1090	-0.4			800	5.5		
2500	1370	-0.6			2020	13.9		

Other Data:

Release Date: 1 Jun 1998

Heat Up Guide: Redline Schedule 3

ASTM Class: C 401 Class C  
 Regular 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.