



# Plibrico Company, LLC

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# Technical Data Sheet Redline Cool Cast A

Product # 51202

Available Internationally As:

Redline Cool Cast A

### Product Description:

Formulation contains a unique naturally non-wetting mineralogy that contains 0% Free Silica. Exhibits high strength, excellent thermal shock resistance, outstanding resistance to molten aluminum and oxide formation, and high heat retention properties. It offers energy savings over low cement castables and can lower cold face temperatures without sacrificing durability. Applications: die cast holding furnaces, transfer troughs, ladles, and furnace covers.

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

**Shelf Life:** 6 months

**Service Limit:** 2400 °F 1320 °C

**Contact Limit:** 1700 °F 927 °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>	10.2	Alk		MgO	40.0
SiO <sub>2</sub>	37.3	TiO <sub>2</sub>		ZrO <sub>2</sub>	
CaO	2.6	P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	6.0	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min	4.5	1.2	1.1
	max			
Casting	min	4.5	1.2	1.1
	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		
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	0.0			2070	14.3		
1500	820	-0.1			1860	12.8		
2000	1090	0.7			2150	14.8		
2400	1320	-1.2			2500	17.2		

Other Data:

Release Date: 1 Jan 2014

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.