



Plibrico Company, LLC

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Technical Data Sheet Redline Redflow 50

Product # 52106

Available Internationally As:

Redline Redflow 50

Product Description:

This material is a high strength, super duty, low moisture castable designed to have good handling and flow characteristics. It will meet most severe service conditions. Applications include aluminum furnace roofs and upper sidewalls, forge and heat treating furnaces, kiln car tops, rotary kiln linings, and dryer furnaces.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 6 months

Service Limit: 3000 °F 1650 °C

Contact Limit: N/A °F N/A °C

Bulk Density - In Service: 147 pcf 2355 kg/m³

Bulk Density - To Place: 147 pcf 2355 kg/m³

Minimum Time To Firing: 24 hr

Abrasion Loss after 1500°F / 815°C
 per ASTM C704

N/A cc

Chemistry (calcined) %					
Al ₂ O ₃	50.0	Alk	0.5	MgO	0.2
SiO ₂	44.9	TiO ₂	1.6	ZrO ₂	
CaO	1.4	P ₂ O ₅		Other	
Fe ₂ O ₃	1.0	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 10⁻⁶ in/in/°F / x 10⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	9.7	1.40
1000°F / 540°C	10.6	1.53
1500°F / 815°C	11.2	1.61
2000°F / 1090°C	11.7	1.68

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	7700	53.0	1675	11.6		
1000	540	-0.2			1675	11.6		
1500	820	-0.3			2250	15.5		
2000	1090	-0.3			2870	19.8		
3000	1650	-0.5			3200	22.1		

Other Data:

Release Date: 1 Jul 1998

Heat Up Guide: Redline Schedule 1

ASTM Class: C 401 Class E

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.