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Technical Data Sheet Redline Redcast 50A

Product # 52201

Available Internationally As:

Redline Redcast 50A

Product Description:

This material is a high strength, super duty, low moisture castable designed to meet most 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: 1700 °F 927 °C

Bulk Density - In Service: 148 pcf 2371 kg/m³

Bulk Density - To Place: 148 pcf 2371 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	49.8	Alk	0.5	MgO	0.2
SiO ₂	45.0	TiO ₂	1.6	ZrO ₂	
CaO	1.3	P ₂ O ₅		Other	
Fe ₂ O ₃	1.1	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min	5.7	1.5	1.4
	max			
Casting	min	5.7	1.5	1.4
	max			
Pumping	min			
	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	8500	59.0	1750	12.1		
1000	540	-0.1			1750	12.1		
1500	820	-0.2			2500	17.2		
2000	1090	-0.2			2990	20.6		
3000	1650	-0.4			3360	23.2		

Other Data:

Release Date: 1 Jun 2007

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.