



Plibrico Company, LLC

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Technical Data Sheet Redline Rapidcast AL

Product # 53201

Available Internationally As:

Redline Rapidcast AL

Product Description:

This high purity mullite based castable features a unique chemical bonding system. It provides fast setting times for quick turnaround and bake out. Excellent strengths, non-wetting properties, and thermal shock resistance. A great choice for molten aluminum contact applications: furnace linings and patches, transfer troughs, ladles, degas boxes. Excellent for precast shapes that require fast turnaround. Adheres extremely well to existing refractory surfaces.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 9 months

Service Limit: 2500 °F 1370 °C

Contact Limit: 1700 °F 927 °C

Bulk Density - In Service: 160 pcf 2563 kg/m³

Bulk Density - To Place: 160 pcf 2563 kg/m³

Minimum Time To Firing: 4 hr

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

N/A cc

Chemistry (calcined) %					
Al ₂ O ₃	63.5	Alk	0.1	MgO	
SiO ₂	27.1	TiO ₂	1.6	ZrO ₂	
CaO		P ₂ O ₅	4.8	Other	
Fe ₂ O ₃	0.8	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min	6.1	1.6	1.5
	max			
Casting	min	6.1	1.6	1.5
	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	11.5	1.66
1000°F / 540°C		
1500°F / 815°C	12.1	1.74
2000°F / 1090°C	12.9	1.86

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
750	400	-0.1	7200	50.0				
1500	820	-0.2	8100	55.9	1200	8.3		
2000	1090	-0.2			1580	10.9		

Other Data:

Release Date: 1 May 2013

Heat Up Guide: Redline Schedule 2

ASTM Class:

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.