Plibrico Company, LLC

1935 Techny Road - Unit 16
Northbrook, IL 60062
(312) 337-9000
www.plibrico.com

Technical Data Sheet
Redline Redcast 80A

Product # 52206

Available Internationally As: Redline Redcast 80A

Product Description:

A high alumina, bauxite based, low cement castable designed for aluminum contact. It has high strengths, resistance to aluminum penetration and has good abrasion and erosion resistance. It's low porosity reduces penetration and reaction by molten metal as well as providing oxide resistance.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 6 months

Service Limit: 3100 ^{o}F   1700 ^{o}C

Contact Limit: 1700 ^{o}F   927 ^{o}C

Bulk Density - In Service: 180 pcf   2884 kg/m³

Bulk Density - To Place: 180 pcf   2884 kg/m³

Minimum Time To Firing: 24 hr

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			
	max			

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

N/A cc

Chemistry (calcined) %					
Al$_2$O$_3$	78.2	Alk		MgO	0.1
SiO$_2$	16.9	TiO$_2$	0.6	ZrO$_2$	
CaO	2.1	P$_2$O$_5$		Other	
Fe$_2$O$_3$	0.5	SiC			

Coefficient of Thermal Expansion (reversable):	
x 10^{-6} in/in/^{o}F /	x 10^{-6} mm/mm/^{o}C

Thermal Conductivity	btu*in/hr*ft^2*^{o}F	W/m^{o}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	
^{o}F	^{o}C		psi	MPa	psi	MPa	psi	MPa
250	120	0.0	8400	58.0	2725	18.8		
1500	820	-0.2	11500	79.3	2240	15.4	4310	29.7
2500	1370	-0.1	12200	84.1	2430	16.8		

Other Data:

Release Date: 1 Mar 2016

Heat Up Guide: Redline Schedule 1

ASTM Class: C 401 Class F
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.