



# Plibrico Company, LLC

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

# Technical Data Sheet Redline Redflow FS-A

Product # 52210

Available Internationally As:

Redline Redflow FS-A

### Product Description:

A low cement, fused silica castable which exhibits excellent flow properties. It contains a non-wetting additive package for molten aluminum contact applications that are subject to high degrees of thermal shock such as filter bowls, casting troughs, and some transfer troughs.

**Standard Packaging:** 45 # / 20 kg Bag

**Shelf Life:** 6 months

**Service Limit:** 2200 °F 1200 °C

**Contact Limit:** 1700 °F 927 °C

**Bulk Density - In Service:** 131 pcf 2099 kg/m<sup>3</sup>

**Bulk Density - To Place:** 131 pcf 2099 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>	16.9	Alk	0.2	MgO	0.1
SiO <sub>2</sub>	79.2	TiO <sub>2</sub>	0.3	ZrO <sub>2</sub>	
CaO	1.7	P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	0.3	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min	6.4	1.4	1.3
	max			
Casting	min	6.4	1.4	1.3
	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	9.3	1.34
1000°F / 540°C	10.1	1.45
1500°F / 815°C	10.7	1.54
2000°F / 1090°C	11.1	1.60

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	-0.1	4800	33.0	1090	7.5		
1000	540	-0.2			1685	11.6		
1500	820	-0.2			1770	12.2		
2000	1090	-0.4			1340	9.2		

Other Data:

Release Date: 1 Oct 2003

Heat Up Guide: Redline Schedule 1

ASTM Class: C 401 Class C  
 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.