

## **Technical Data Sheet**

## Redline Redgun 50A

Product # 52405

Available Internationally As:

Redline Redgun 50A

## **Product Description:**

A super duty gun mix that exhibits excellent hot strength combined with good resistance to abrasion and mechanical abuse. It can be used in non-metal contact areas of aluminum melting and holding equipment, high temperature stack linings, cement kiln linings and firing hoods, and reheat furnaces.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 9 months

Service Limit:  $3000 \,^{\circ}\text{F}$   $1650 \,^{\circ}\text{C}$ Contact Limit:  $1700 \,^{\circ}\text{F}$   $927 \,^{\circ}\text{C}$ 

Bulk Density - In Service: 130 pcf 2083 kg/m<sup>3</sup>

Bulk Density - To Place: 130 pcf 2083 kg/m<sup>3</sup>

Minimum Time To Firing: 24 hr

| Water Range Per<br>Standard Package |     | % | Quarts | Liters |
|-------------------------------------|-----|---|--------|--------|
| Vib<br>Casting                      | min |   |        |        |
|                                     | max |   |        |        |
| Casting                             | min |   |        |        |
|                                     | max |   |        |        |
| Pumping                             | min |   |        |        |
|                                     | max |   |        |        |

per ASTM C704

N/A cc

| Chemistry (calcined) %         |          |                               |     |                  |     |  |
|--------------------------------|----------|-------------------------------|-----|------------------|-----|--|
| Al <sub>2</sub> O <sub>3</sub> | 50.3 Alk |                               | 0.4 | MgO              | 0.2 |  |
| SiO <sub>2</sub>               | 40.8     | TiO <sub>2</sub>              | 1.3 | ZrO <sub>2</sub> |     |  |
| CaO                            | 2.7      | P <sub>2</sub> O <sub>5</sub> |     | Other            |     |  |
| Fe <sub>2</sub> O <sub>3</sub> | 1.2      | SiC                           |     |                  |     |  |

## Coefficient of Thermal Expansion (reversable):

 $x 10^{-6} in/in/^{\circ}F / x 10^{-6} mm/mm/^{\circ}C$ 

| Thermal<br>Conductivity | btu*in/hr*ft²*°F | W/m°C |
|-------------------------|------------------|-------|
| 500°F / 260°C           |                  |       |
| 1000°F / <i>540</i> °C  |                  |       |
| 1500°F / <i>815</i> °C  |                  |       |
| 2000°F / 1090°C         |                  |       |

| Temperature |      | Linear                   | CCS<br>per ASTM C133 |      | Cold MOR per ASTM C133 |     | Hot MOR per ASTM C583 |     |
|-------------|------|--------------------------|----------------------|------|------------------------|-----|-----------------------|-----|
| °F          | °C   | Change%<br>per ASTM C113 | psi                  | MPa  | psi                    | MPa | psi                   | MPa |
| 250         | 120  | -0.1                     | 4300                 | 30.0 | 730                    | 5.0 |                       |     |
|             |      |                          |                      |      |                        |     |                       |     |
| 1500        | 820  | -0.3                     |                      |      | 665                    | 4.6 |                       |     |
| 2000        | 1090 | -0.3                     |                      |      | 500                    | 3.4 |                       |     |
| 2500        | 1370 | 1.4                      |                      |      | 870                    | 6.0 |                       |     |

Other Data:

Release Date: 1 Aug 2000

Heat Up Guide: Redline Schedule 3

**ASTM Class:** 

Regular 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.