



# Plibrico Company, LLC

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# Technical Data Sheet Redline Redlite G 28A

Product # 55402

Available Internationally As:

Redline Redlite G 28A

### Product Description:

This material is a high temperature insulating castable that exhibits excellent properties and gunning characteristics. It contains a non-wetting additive for molten aluminum contact applications. It can be used in melting and holding furnace subhearth and over-the-road ladle linings and covers. It also has application in petrochemical heaters and vessels, boiler and incinerator stack linings, and door liners.

**Standard Packaging:** 30 # / 14 kg Bag

**Shelf Life:** 12 months

**Service Limit:** 2800 °F 1540 °C

**Contact Limit:** 1700 °F 927 °C

**Bulk Density - In Service:** 85 pcf 1362 kg/m<sup>3</sup>

**Bulk Density - To Place:** 85 pcf 1362 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> | 55.3 | Alk                           | 1.6 | MgO              | 0.2 |
| SiO <sub>2</sub>               | 36.0 | TiO <sub>2</sub>              | 0.6 | ZrO <sub>2</sub> |     |
| CaO                            | 5.5  | P <sub>2</sub> O <sub>5</sub> |     | Other            |     |
| Fe <sub>2</sub> O <sub>3</sub> | 0.7  | SiC                           |     |                  |     |

| Water Range Per Standard Package |     | % | Quarts | Liters |
|----------------------------------|-----|---|--------|--------|
| Vib Casting                      | min |   |        |        |
|                                  | max |   |        |        |
| Casting                          | min |   |        |        |
|                                  | 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        | 2.4                           | 0.35  |
| 1000°F / 540°C       | 2.6                           | 0.37  |
| 1500°F / 815°C       | 3.0                           | 0.43  |
| 2000°F / 1090°C      | 3.8                           | 0.55  |

| Temperature |      | Linear Change%<br>per ASTM C113 | CCS<br>per ASTM C133 |     | Cold MOR<br>per ASTM C133 |     | Hot MOR<br>per ASTM C583 |     |
|-------------|------|---------------------------------|----------------------|-----|---------------------------|-----|--------------------------|-----|
| °F          | °C   |                                 | psi                  | MPa | psi                       | MPa | psi                      | MPa |
| 250         | 120  | -0.1                            | 1150                 | 8.0 | 480                       | 3.3 |                          |     |
| 1000        | 540  | -0.2                            |                      |     | 360                       | 2.5 |                          |     |
| 1500        | 820  | -0.3                            |                      |     | 540                       | 3.7 |                          |     |
| 2000        | 1090 | -0.4                            |                      |     | 420                       | 2.9 |                          |     |
| 2500        | 1370 | 1.8                             |                      |     | 720                       | 5.0 |                          |     |

Other Data:

Release Date: 1 Nov 2011

Heat Up Guide: Redline Schedule 3

ASTM Class:

Insulating 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.