

# MILBRO REFRACTORIES, INC.

## MILCAST 85

A high alumina, castable mix. Good strength, volume stable and resistant to thermal shock. MILCAST 85 high refractoriness is a result of blending highly refractory aggregates with a high purity binder having a low silica content. Ramps and bottoms of aluminum melting and holding furnaces are typical applications.

|   |                                |
|---|--------------------------------|
| <b>Service Temperature</b>              | <b>3250°F</b>                  |
| <b>Material Required for Estimating</b> | <b>155 lbs./ft<sup>3</sup></b> |
| <b>Mixing Water Required</b>            | <b>4.0-4.5 qt./80lbs</b>       |

### TYPICAL CHEMICAL ANALYSIS

|                                |      |
|--------------------------------|------|
| Al <sub>2</sub> O <sub>3</sub> | 84.8 |
| SiO <sub>2</sub>               | 5.2  |
| Fe <sub>2</sub> O <sub>3</sub> | 1.7  |
| TiO <sub>2</sub>               | 2.2  |
| MgO                            | 0.1  |
| CaO                            | 5.4  |
| Alkalies                       | 0.2  |

### TYPICAL PHYSICAL PROPERTIES

| Temperature<br>°F | Modulus of<br>Rupture, psi | Cold Crushing<br>Strength, psi | Linear change<br>% |
|-------------------|----------------------------|--------------------------------|--------------------|
| 220°F             | 900-1200                   | 4100-4500                      | 0.0                |
| 500°F             | 1000-1200                  | 4300-4600                      | 0.1 S              |
| 1000°F            | 700-1000                   | 3800-4100                      | 0.1 S              |
| 1500°F            | 700-1000                   | 3800-4100                      | 0.2 S              |
| 2000°F            | 800-1100                   | 4000-4300                      | 0.2 S              |
| 2500°F            | 1400-1600                  | 4700-5000                      | 0.7 S              |

All data shown is based on average results of standard ASTM procedures, unless otherwise indicated. Results are subject to reasonable deviation and should not be used for specification purposes.

2900°F

2500-3000

5300-5600

1.4 S