

# MILBRO REFRACTORIES, INC.

## MILPLAS 85 PB

MILPLAS 85 PB is a high purity, high alumina, chemically bonded plastic refractory. MILPLAS 85 PB exhibits high hot strengths throughout the temperature range. High density and low porosity make it resistant to ferrous and non-ferrous metal penetration and the effect of corrosive slags. Typical applications include hearths of reheat furnaces, soaking pit walls and bottoms, forge furnace hearths and lower side walls, hearths and ramps of aluminum melting and holding furnaces.

|   |                                |
|---|--------------------------------|
| <b>Service Temperature</b>              | <b>3200° F</b>                 |
| <b>Melting Point</b>                    | <b>3350° F</b>                 |
| <b>Material Required for Estimating</b> | <b>170 lbs./ft<sup>3</sup></b> |

### TYPICAL CHEMICAL ANALYSIS

|                                |      |
|--------------------------------|------|
| Al <sub>2</sub> O <sub>3</sub> | 84.6 |
| SiO <sub>2</sub>               | 6.5  |
| Fe <sub>2</sub> O <sub>3</sub> | 2.1  |
| TiO <sub>2</sub>               | 2.2  |
| MgO                            | 0.3  |
| CaO                            | 0.2  |
| P <sub>2</sub> O <sub>5</sub>  | 3.9  |

### TYPICAL PHYSICAL PROPERTIES

| Temperature<br>°F | Modulus of<br>Rupture, psi | Cold Crushing<br>Strength, psi | Linear change<br>% |
|-------------------|----------------------------|--------------------------------|--------------------|
| 220°F             | 600-800                    | 2000-2400                      | 0.2 S              |
| 1500°F            | 550-650                    | 1900-2300                      | 0.2 S              |
| 2000°F            | 950-1400                   | 3100-3800                      | 0.1 S              |
| 2500°F            | 1200-1600                  | 4100-4600                      | 0.4 E              |
| 3000°F            | 1300-1500                  | 3900-4300                      | 0.7 E              |

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