

# MILBRO REFRACTORIES, INC.

## ULTRA-RED<sup>®</sup>

ULTRA-RED<sup>®</sup> is a mullite based, chemically bonded plastic refractory. High hot strengths at elevated temperatures, low porosity and volume stability are essential features. ULTRA-RED<sup>®</sup> is used where resistance to severe abrasion and spalling is required. Applications include aluminum melting and holding furnaces, incinerators, boilers, ladle linings and rotary kilns.

<b>Service Temperature</b>	<b>3200° F</b>
<b>Melting Point</b>	<b>3275° 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>	73.9
SiO <sub>2</sub>	20.2
Fe <sub>2</sub> O <sub>3</sub>	0.9
TiO <sub>2</sub>	1.6
MgO	0.1
CaO	0.1
P <sub>2</sub> O <sub>5</sub>	3.0

### TYPICAL PHYSICAL PROPERTIES

Temperature °F	Modulus of Rupture, psi	Cold Crushing Strength, psi	Linear change %
600°F	1550	3875	0.2 S
2000°F	1900	5800	0.1 S
2500°F	2750	8300	0.2 S
3000°F	3550	13200	0.5 S

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.