Exo-Set UNO M G

Product Description
An one component, rapid hardening, chemically bonded, mullite based refractory castable. Exhibits excellent bonding adherence to old refractory. May be gunned hot or cold. Do not predampen. Non wetting to aluminum.

Typical Applications
As a primary lining or for maintenance repairs of metal contact areas in aluminum melting and holding furnaces, ladles, troughs and launders.

Technical Data Sheet

Date: 2/10/2014
Product Number: 17437

Service limit - 2500°F / 1371 °C
Std. package  55 # / 25 kg Bag
Density to place  142 pcf  2,274 kg/m³
Water range per std. package:
Density in service  142 pcf  2,275 kg/m³
Casting to qts 0.0 to 0.0 l
Min time before firing none

Chemistry % (calcined)
\[ \begin{align*}
\text{Al}_2\text{O}_3 & : 58.7 \\
\text{P}_2\text{O}_5 & : 4.8 \\
\text{SiO}_2 & : 26.2 \\
\text{Other} & : 10.7
\end{align*} \]

Thermal Conductivity
\[ \begin{align*}
\text{btu/in/hr/ft}^2/\grad\F & \text{ w/m°C} \\
500\grad F / 260\grad C & : 8.0/1.15 \\
1000\grad F / 540\grad C & : 8.2/1.18 \\
1500\grad F / 815\grad C & : 9.0/1.29 \\
2000\grad F / 1090\grad C & : 10.3/1.48
\end{align*} \]

Abrasions Loss
per ASTM C 704
after 1500 F
12 cc

Coefficient of Thermal Expansion
(reversible)
3.6 \times 10^{-6} \text{ in/in F}
6.4 \times 10^{-6} \text{ m/m C}

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Linear Change</th>
<th>Cold MOR</th>
<th>CCS</th>
<th>Hot MOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>per ASTM C113 / C865</td>
<td>per ASTM C113 / C179</td>
<td>psi</td>
<td>MPa</td>
<td>psi</td>
</tr>
<tr>
<td>230 F / 110 C</td>
<td>0.0%</td>
<td>1100</td>
<td>7.6</td>
<td>0</td>
</tr>
<tr>
<td>1000 F / 540 C</td>
<td>-0.2%</td>
<td>800</td>
<td>5.5</td>
<td>0</td>
</tr>
<tr>
<td>1500 F / 815 C</td>
<td>-0.3%</td>
<td>1000</td>
<td>6.9</td>
<td>0</td>
</tr>
<tr>
<td>1800 F / 980 C</td>
<td>-0.4%</td>
<td>1300</td>
<td>9.0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note:
All data are averaged results of ASTM tests (where applicable) on laboratory gunned 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 / testing changes. Please consult your Plico representative to make sure you have the most current data.

Plico Refractories are manufactured by Plibrico Company LLC, USA.