### PHYSICAL DATA

<table>
<thead>
<tr>
<th></th>
<th>Vibration Cast</th>
<th>Self-Leveling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Service Temperature</td>
<td>3100°F</td>
<td>3100°F</td>
</tr>
<tr>
<td>Water by Weight Required for Casting</td>
<td>5.0%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Bulk Density</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After Drying at 250°F</td>
<td>160 pcf</td>
<td>156 pcf</td>
</tr>
<tr>
<td>Modulus of Rupture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After Drying at 250°F</td>
<td>2,000 psi</td>
<td>1,600 psi</td>
</tr>
<tr>
<td>After Heating to 1500°F</td>
<td>3,100 psi</td>
<td>2,700 psi</td>
</tr>
<tr>
<td>At 2550°F</td>
<td>1,600 psi</td>
<td>1,250 psi</td>
</tr>
<tr>
<td>At 2700°F</td>
<td>800 psi</td>
<td>600 psi</td>
</tr>
<tr>
<td>Cold Crushing Strength</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After Heating to 1500°F</td>
<td>15,000 psi</td>
<td>12,000 psi</td>
</tr>
<tr>
<td>Permanent Linear Change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After Heating to 1500°F</td>
<td>-0.1%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>After Heating to 2550°F</td>
<td>+0.4%</td>
<td>+0.4%</td>
</tr>
<tr>
<td>After Heating to 2700°F</td>
<td>+0.3%</td>
<td>+0.3%</td>
</tr>
</tbody>
</table>

### CHEMICAL ANALYSIS

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica [SiO₂]</td>
<td>29.9%</td>
</tr>
<tr>
<td>Alumina [Al₂O₃]</td>
<td>65.8%</td>
</tr>
<tr>
<td>Iron Oxide [Fe₂O₃]</td>
<td>0.9%</td>
</tr>
<tr>
<td>Lime [CaO]</td>
<td>1.5%</td>
</tr>
<tr>
<td>Titania [TiO₂]</td>
<td>1.7%</td>
</tr>
<tr>
<td>Other</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

NOTE: All data are based on averages and subject to reasonable deviation and should not be used for specification purposes.

3180