SL Grade Graphite

Product Overview
Densified prior to graphitization, GRAFSTAR™ SL graphite is for applications requiring higher densities and good mechanical strength.

Applications
- CZ silicon crystal growth
- Quartz
- Casting molds and furnace parts for hot metal

Sizes*
- 20” & 22” diameter rounds
- 500 mm & 550 mm diameter rounds
- 20” and 22” cross-section rounds
- 500 and 550 mm cross-section rounds

Typical Properties at Room Temperature**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Unit</th>
<th>WG</th>
<th>AG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>lbs/ft³</td>
<td>110</td>
<td>g/cm³</td>
</tr>
<tr>
<td>Maximum Particle Size</td>
<td>inches</td>
<td>0.030</td>
<td>mm</td>
</tr>
<tr>
<td>Specific Resistance</td>
<td>10⁻⁴Ωin</td>
<td>2.9</td>
<td>3.4</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>psi</td>
<td>2900</td>
<td>2465</td>
</tr>
<tr>
<td>Young’s Modulus</td>
<td>10⁶ psi</td>
<td>1.45</td>
<td>1.23</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>psi</td>
<td>2030</td>
<td>1740</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>psi</td>
<td>8000</td>
<td>8000</td>
</tr>
<tr>
<td>Permeability</td>
<td>Darcy</td>
<td>0.02</td>
<td>Darcy</td>
</tr>
<tr>
<td>Hardness</td>
<td>Rockwell “R”</td>
<td>93</td>
<td>Rockwell “R”</td>
</tr>
<tr>
<td>C.T.E. (to 100 °C)</td>
<td>10⁻⁶/°F</td>
<td>1.8</td>
<td>2.1</td>
</tr>
<tr>
<td>Thermal Conductivity</td>
<td>BTU-ft/hr ft² °F</td>
<td>90</td>
<td>81</td>
</tr>
<tr>
<td>Ash Content</td>
<td>ppm</td>
<td>1500</td>
<td>ppm</td>
</tr>
</tbody>
</table>

Notes:
* Other sizes available upon request
** Properties listed are typical and cannot be used as accept/reject specifications