Product Integrity

Z-BLOK™ II Modules are formed from a continuous length of top quality ceramic fiber blanket, accordion folded and banded to maximize compression in the furnace lining.

Available in large format up to 24” x 24”, the large Z-BLOK™ II format is recommended for reduced shrinkage, minimal joints, maximized stability and lower overall costs.

Z-BLOK™ II Ceramic Fiber Module System features a patented internal hardware design that is installed within 1.25” of the module cold face to increase high temperature stability.

Engineered Systems

Relative to furnace variables such as hot face temperature, velocity, chemical attach, geometry, penetrations and movement, Thorpe engineers will design the Z-BLOK™II module lining to meet the demands of the operation. Some design options include numerous densities, temperatures, module size configurations and anchor attachment. Standard temperature ratings for the Z-BLOK™II Modules include 2300°F and 2600°F, with special designs available up to 3000°F.

Depending on the furnace design, a Z-BLOK™II Module System can use a variety of attachment options to increase the stability of the lining.

Relative to the customer needs, Thorpe’s capabilities range from providing a turnkey, installed package to working with the OEM or end user to design a specific Z-BLOK™II System to meet your schedule.

Thorpe’s engineered approach includes detailed installation drawings, thereby facilitating a rapid installation process on jobs ranging from complete rebuilds to quick patch jobs.

Physical Properties

<table>
<thead>
<tr>
<th></th>
<th>2300</th>
<th>2600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>white</td>
<td>white</td>
</tr>
<tr>
<td>Typical Density, pcf (kg/m³)</td>
<td>8, 9.3, 10.7, 12 (128, 149, 171, 192)</td>
<td>8, 9.3, 10.7, 12 (128, 149, 171, 192)</td>
</tr>
<tr>
<td>Thickness, in. (mm) (standard)</td>
<td>3.5 (88.9) min.</td>
<td>3.5 (88.9) min.</td>
</tr>
<tr>
<td>Maximum temp rating, °F (°C)</td>
<td>2300 (1260)</td>
<td>2600 (1427)</td>
</tr>
<tr>
<td>Continuous use limit, up to, °F (°C)</td>
<td>2150 (1177)</td>
<td>2450 (1343)</td>
</tr>
</tbody>
</table>

Chemical Analysis

<table>
<thead>
<tr>
<th></th>
<th>2300</th>
<th>2600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alumina, Al₂O₃</td>
<td>42 - 48</td>
<td>28 - 32</td>
</tr>
<tr>
<td>Silica, SiO₂</td>
<td>52 - 56</td>
<td>52 - 56</td>
</tr>
<tr>
<td>Zirconia, ZrO₂</td>
<td>–</td>
<td>14 - 18</td>
</tr>
<tr>
<td>Chromia, Cr₂O₃</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Other</td>
<td>trace</td>
<td>trace</td>
</tr>
</tbody>
</table>

Thermal Conductivity

<table>
<thead>
<tr>
<th></th>
<th>8.0 pcf</th>
<th>9.3 pcf</th>
<th>10.7 pcf</th>
<th>12.0 pcf</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(128 kg/m³)</td>
<td>(149 kg/m³)</td>
<td>(171 kg/m³)</td>
<td>(192 kg/m³)</td>
</tr>
<tr>
<td>Mean Temperature</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>@ 500°F (260°C)</td>
<td>0.46 (0.07)</td>
<td>0.47 (0.07)</td>
<td>0.42 (0.06)</td>
<td>0.42 (0.06)</td>
</tr>
<tr>
<td>@ 1000°F (538°C)</td>
<td>1.07 (0.15)</td>
<td>1.02 (0.15)</td>
<td>0.97 (0.14)</td>
<td>0.93 (0.13)</td>
</tr>
<tr>
<td>@ 1500°F (816°C)</td>
<td>2.06 (0.29)</td>
<td>1.88 (0.27)</td>
<td>1.76 (0.25)</td>
<td>1.64 (0.23)</td>
</tr>
<tr>
<td>@ 2000°F (1093°C)</td>
<td>3.38 (0.48)</td>
<td>3.04 (0.43)</td>
<td>2.78 (0.40)</td>
<td>2.53 (0.36)</td>
</tr>
</tbody>
</table>

The values given herein are typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Therefore, the data contained herein should not be used for specification purposes. Check with your Thorpe office to obtain current information.

Z-BLOK™II is a trademark of Thorpe Specialty Services.

www.ThorpePME.com
USA OPERATIONS

Manufacturing Locations

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Louisiana Plant
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Phone: (225) 642-8060

Texas Plant
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Houston, TX 77047
Phone: (713) 433-7200

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Phone: (713) 644-1247

Houston-Ranger Plant
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Phone: (713) 671-2458

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Abbottsford, BC
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V2K 2W7
Phone: (250) 962-2322

Vancouver Island Office
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Parksville, BC
V9P 2T3
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