**General Product Description**

Wire saw cut plates can be made from any base material and are available in round and rectangular geometry.

Due to the wire saw technology the roughness of the surface is less than Ra 0.8 µm. Also the plates have outstanding flatness and parallelism.

This cutting method produces no sub-surface damage in the material thus allowing the plates to be mechanically polished directly without a fine grinding step.

No sub-surface damage also permits firepolishing to be easily accomplished with a light flame thus minimizing warping.

A further advantage for our customers is cost effectiveness because of negligible material loss during cutting.

The thickness of the plates range from 0.675 mm to 15.85 mm.

Heraeus offers wire saw cut plates in proven material qualities. These include high purity OM 100 opaque material as well as clear electrically fused materials (HSQ 300 / 700) and clear flame fused materials (HSQ 351 / 751).

More detailed information about the individual material grades are available upon request.

*Heraeus Quarzglas*
Available Dimensions
Standard dimensions of plates and discs are shown in the table to the right. Other dimensions are available on request. Heraeus can offer customers the additional possibility to cut the plates to any desired shapes via water-jet or laser machining.

<table>
<thead>
<tr>
<th></th>
<th>Size</th>
<th>Thickness</th>
<th>Thickness Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plates HSQ 300 / 700 / 351 / 751</td>
<td>up to 500 x 500 mm</td>
<td>2 - 10 mm</td>
<td>+0.3 mm</td>
</tr>
<tr>
<td>Plates OM 100</td>
<td>up to 400 x 400 mm</td>
<td>3 - 6 mm</td>
<td>+0.3 mm</td>
</tr>
<tr>
<td>Discs HSQ 300 / 700 / 351 / 751</td>
<td>Ø 235 - 350 mm</td>
<td>3 - 6 mm</td>
<td>+0.3 mm</td>
</tr>
<tr>
<td>Discs OM 100</td>
<td>Ø 235 - 355 mm</td>
<td>2 - 6 mm</td>
<td>2 - 8 mm</td>
</tr>
</tbody>
</table>

Chemical Purities
Typical trace elements and OH-Content (ppm by weight oxide)

<table>
<thead>
<tr>
<th>Elements</th>
<th>Al</th>
<th>Ca</th>
<th>Cr</th>
<th>Cu</th>
<th>Fe</th>
<th>K</th>
<th>Li</th>
<th>Mg</th>
<th>Mn</th>
<th>Na</th>
<th>Ti</th>
<th>Zr</th>
<th>OH Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSQ 300</td>
<td>15</td>
<td>0.5</td>
<td>&lt; 0.05</td>
<td>&lt; 0.05</td>
<td>0.1</td>
<td>0.4</td>
<td>0.6</td>
<td>0.05</td>
<td>&lt; 0.05</td>
<td>0.3</td>
<td>1.1</td>
<td>0.7</td>
<td>&lt; 30</td>
</tr>
<tr>
<td>HSQ 700</td>
<td>15</td>
<td>0.5</td>
<td>&lt; 0.05</td>
<td>&lt; 0.05</td>
<td>0.1</td>
<td>0.1</td>
<td>0.05</td>
<td>0.05</td>
<td>&lt; 0.05</td>
<td>0.05</td>
<td>1.1</td>
<td>0.7</td>
<td>&lt; 30</td>
</tr>
<tr>
<td>HSQ 351</td>
<td>15</td>
<td>0.6</td>
<td>&lt; 0.05</td>
<td>0.07</td>
<td>0.2</td>
<td>0.7</td>
<td>0.4</td>
<td>0.1</td>
<td>0.05</td>
<td>0.8</td>
<td>1.1</td>
<td>1.1</td>
<td>175</td>
</tr>
<tr>
<td>HSQ 751</td>
<td>8</td>
<td>0.5</td>
<td>&lt; 0.05</td>
<td>&lt; 0.06</td>
<td>0.2</td>
<td>&lt; 0.1</td>
<td>0.2</td>
<td>&lt; 0.05</td>
<td>0.05</td>
<td>&lt; 0.05</td>
<td>1.4</td>
<td>0.1</td>
<td>175</td>
</tr>
<tr>
<td>OM 100</td>
<td>15</td>
<td>1.2</td>
<td>&lt; 0.01</td>
<td>&lt; 0.05</td>
<td>0.2</td>
<td>0.4</td>
<td>0.6</td>
<td>0.05</td>
<td>&lt; 0.03</td>
<td>0.2</td>
<td>1.2</td>
<td>0.8</td>
<td>-</td>
</tr>
</tbody>
</table>

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