**j-BDSR - Boron Doped Silica Rods**

j-fiber BDSR – boron doped silica rods are used for the fabrication of Panda style polarization maintaining fiber (PM). Boron doped rods are inserted into a preform as stress applying parts. The special designed preform offers fiber manufacturers a high yield for a highly birefringence waveguide structure that preserves the linear polarization of the input beam along the length of the fiber.

**Features**
- High Boron content available
- Large core diameters available
- Tight geometrical tolerances
- Custom geometry stress rods for easy insertion in Panda style preforms

**Specification**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Spec. Values</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refractive index profile</td>
<td>Inverse step index</td>
<td></td>
</tr>
<tr>
<td>Core composition</td>
<td>B₂O₃– SiO₂</td>
<td></td>
</tr>
<tr>
<td>Core diameter</td>
<td>3 - 13</td>
<td>mm</td>
</tr>
<tr>
<td>Tolerance of core diameter within a preform</td>
<td>≤ 10</td>
<td>%</td>
</tr>
<tr>
<td>Core non-circularity¹</td>
<td>≤ 6</td>
<td>%</td>
</tr>
<tr>
<td>Boron B₂O₃ concentration</td>
<td>up to 20</td>
<td>wt.%</td>
</tr>
<tr>
<td>Refractive index delta²</td>
<td>- 1.0 x 10⁻³ up to - 8.4 x 10⁻³</td>
<td></td>
</tr>
<tr>
<td>Tolerance of refractive Index delta within a rod</td>
<td>≤ 15</td>
<td>%</td>
</tr>
<tr>
<td>Rod length</td>
<td>200 - 600</td>
<td>mm</td>
</tr>
<tr>
<td>Bow</td>
<td>&lt; 0.7</td>
<td>mm/m</td>
</tr>
<tr>
<td>Roughness of surface</td>
<td>&lt; 0.2</td>
<td>µm</td>
</tr>
<tr>
<td>Appearance: Bubbles (&gt;100µm)</td>
<td>dustfree and flawless</td>
<td></td>
</tr>
<tr>
<td>Optional cladding: Stress Rods can be supplied with undoped clad layer on demand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Related to boron concentration measured by DIN EN ISO 21078-1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ordering Information**

To order j-fiber BDSR please call, fax or email us and specify the following parameters:

- **Preform type**: j-BDSR - Boron doped silica rods
- **Core diameter**: mm
- **Optional cladding**: mm
- **Refractive index delta or boron content**: wt. %
- **Length**: mm

For further information about j-fiber products and services, please contact us:

**j-fiber GmbH**
Im Semmichit 1
07751 Jena, Germany
Tel.: +49-3641-352 100
Fax: +49-3641-352 101
Email: info@j-fiber.com
Internet: www.j-fiber.com

All fibers and preforms are subject to j-fiber's ongoing process and quality improvement programs ensuring excellent performance and high reliability. We reserve the right to make changes to the above specifications without notice.

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