Zirconiа  Mg-PSZ

**CHEMICAL COMPOSITION**

<table>
<thead>
<tr>
<th>Component</th>
<th>wt%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZrO₂</td>
<td>94%</td>
</tr>
<tr>
<td>HfO₂</td>
<td>&lt;2%</td>
</tr>
<tr>
<td>MgO</td>
<td>3.65%</td>
</tr>
<tr>
<td>Al₂O₃</td>
<td>0.02%</td>
</tr>
<tr>
<td>SiO₂</td>
<td>0.2%</td>
</tr>
<tr>
<td>Fe₂O₃</td>
<td>0.09</td>
</tr>
</tbody>
</table>

* by difference

**PHYSICAL PROPERTIES**

- Mean grain size: 20±5 µm
- Sintered density: 5.74 g/cm³
- Bending strength at 20° C: 400 MPa
- Hardness H₉₀.₅: 1200 Hv

**THERMAL PROPERTIES**

- Thermal conductivity at 20°C: 3 W.m⁻¹.k⁻¹

**ELECTRICAL PROPERTIES**

- Dielectric constant at 25°C-1MHz: 27 (1MHz)
- tan δ: 2.10⁻³ (1GHz)
- DC Volume resistivity at 25°C: 5.10¹² Ω.cm
- Dielectric strength at 3mm: 19 kV/mm

**MICROSTRUCTURE**

- Good wear and mechanical properties

**TYPICAL APPLICATIONS**

Textile yarn guides, wear and corrosion in applications requiring thermal shock resistance, tooling in metal forming, guide rollers for welded tube production.