JIOS AeroVa® Aerogel Powder is the ultimate additive choice for applications requiring thermal performance, fire resistance, high operating temperatures and hydrophobicity.

JIOS AeroVa® is cost effective and the tightly distributed particle sizes are excellent for use in diverse markets such as building and construction, aerospace, automotive, energy, cosmetics, performance textiles and general industrial applications.

Key Performance Attributes:
- Low thermal conductivity
- Superhydrophobic
- High resistance to shear
- Ultra low density
- Wide operating temperature range

### JIOS AeroVa® Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Particle Size Range</td>
<td>&lt;20 um [D95]</td>
</tr>
<tr>
<td>Pore Diameter</td>
<td>~20 nm</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>0.03 ~ 0.1 g/cm³</td>
</tr>
<tr>
<td>Surface Chemistry</td>
<td>Superhydrophobic</td>
</tr>
<tr>
<td>Thermal Conductivity</td>
<td>0.017 ~ 0.022 W/m·k</td>
</tr>
<tr>
<td>Surface Area</td>
<td>600 ~ 800 m²/g</td>
</tr>
<tr>
<td>Porosity</td>
<td>&gt; 90%</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-200ºC ~ 1,600ºC</td>
</tr>
</tbody>
</table>

### JIOS AeroVa® Particle Analysis

JIOS AeroVa® (D20 Grade) has a very tight d95 distribution within <20 um [D95]

![Particle Analysis Graph](image)

*Test conducted by KRICT in 2013*

### JIOS AeroVa® Aerogel Powder

**Structure**
- 3D Network Structure (SiO₂)
- High Porosity > 90%
- Open Pore Network

![Aerogel Structure](image)

### JIOS AeroVa® Applications

**Applications**
Silica Aerogel can be utilized in numerous applications
- Coatings - Insulation / Fireproof / Waterproof
- Blankets
- Tapes / Films
- Textiles
- Cosmetics
- Plaster
- Plastics / Masterbatch
- Compression Molding
- Cement and Perlite composites

![Applications Image](image)