Fiberguide’s Solarguide fiber is hydrogen infused to improve long-term attenuation stability at short UV wavelengths (190nm – 230nm). Solarguide fibers are the ideal choice for UV Spectroscopy, Lithography, Excimer Laser Systems, and UV curing applications that use Deuterium Lamps or other UV sources below 230nm.

**FIBER SPECIFICATIONS**

- **Fiber Type:** Step Index Multimode
- **Fiber Construction:** Silica Core / Silica Clad / Polymer or Metal Coated
- **Trade Name:** Solarguide™
- **Fibers:** UV-VIS (High OH) 190nm – 1250nm
- **Polyimide Coating**
- **Doped Silica Clad**
- **Pure Silica Core**
- **Aluminum Coating**
- **Doped Silica Clad**
- **Pure Silica Core**

**Applications:**
- Laser Surgery
- Semiconductor Manufacturing
- UV Illumination

**Recommended Bend Radius:**
- Short Term: 100 X Clad Diameter
- Long Term: 200 X Clad Diameter

Please note that these figures represent best practice recommendations. In applications where tighter bends are required, Fiberguide can assist you in estimating what impact they may have on fiber reliability.

- 100% Proof Test Using 4-Axis Bend Method
- Standard Core/Clad Ratio: 1.1
- Thermocoat (Polyimide) certified to Namsa Class VI

**Applications:**
- Photo Initiated Chemistry
- UV Curing
- Analytical Instruments
Fiber Type: Solarguide™ Pure Fused Silica Core/Fluorine Doped Silica Cladding - Step Index Multimode
Wavelength: UV-VIS (High OH): 190 nm - 1250 nm
Coating: Polyimide

Note: Fiberguide’s metallized coatings increase the attenuation of the fiber. The values/charts in this document are for polymer coated fibers only. Please contact us for specifics.
### Solarguide™

**Solarization Resistant UV Fiber**

**Fiber Type:** Step Index Multimode

**Construction:**
- Silica Core/Silica Clad/
- Polymer or Metal Coated

**Trade Name:**
- Solarguide™
- UV-VIS (High OH)
  - 190nm – 1250nm

### Index of Refraction (IOR) @ 633 nm

<table>
<thead>
<tr>
<th>Fiber Type</th>
<th>Layer</th>
<th>Numerical Aperture (NA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solarguide™ Pure Fused Silica Core/ Fluorine Doped Silica Cladding - Step Index Multimode</td>
<td>Core</td>
<td>1.457</td>
</tr>
<tr>
<td></td>
<td>Cladding</td>
<td>1.410</td>
</tr>
</tbody>
</table>

### Polyimide/Thermocoat Coating

**Temperature:** -190°C to +350°C / -310°F to +662°F

**Fiber Type:** Solarguide™ Pure Fused Silica Core/ Fluorine Doped Silica Cladding - Step Index Multimode

**Wavelength:** UV-VIS (High OH): 190 nm - 1250 nm

**Numerical Aperture (NA):**
- Standard: 0.22 ± 0.02 (Full acceptance Angle 25˚)

**Proof Test:** 50 KPSI 4-Axis Bend Test

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Core Diameter (µm)</th>
<th>Cladding Diameter (µm)</th>
<th>Coating Diameter (µm)</th>
<th>Bend Radius Short Term/Long Term (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UVS50/125/145THY</td>
<td>50 ± 2</td>
<td>125 + 1/-3</td>
<td>145 ± 5</td>
<td>≥ 13/25</td>
</tr>
<tr>
<td>UVS100/110/130THY</td>
<td>100 ± 2</td>
<td>110 ± 2.2</td>
<td>130 ± 5</td>
<td>≥ 11/22</td>
</tr>
<tr>
<td>UVS200/220/245THY</td>
<td>200 ± 4</td>
<td>220 ± 4.4</td>
<td>245 ± 5</td>
<td>≥ 22/44</td>
</tr>
<tr>
<td>UVS300/330/355THY</td>
<td>300 ± 6</td>
<td>330 ± 6.6</td>
<td>355 ± 10</td>
<td>≥ 33/66</td>
</tr>
<tr>
<td>UVS400/440/480THY</td>
<td>400 ± 8</td>
<td>440 ± 8.8</td>
<td>480 ± 10</td>
<td>≥ 44/88</td>
</tr>
<tr>
<td>UVS600/660/710/1200THY</td>
<td>600 ± 12</td>
<td>660 ± 13.2</td>
<td>710 ± 15</td>
<td>≥ 66/132</td>
</tr>
</tbody>
</table>

### Aluminum Coating

**Temperature:** -269°C to +400°C / -452°F to +752°F

**Fiber Type:** Solarguide™ Pure Fused Silica Core/ Fluorine Doped Silica Cladding - Step Index Multimode

**Wavelength:** UV-VIS (High OH): 190 nm - 1250 nm

**Numerical Aperture (NA):**
- Standard: 0.22 ± 0.02 (Full acceptance Angle 25˚)

**Proof Test:** 100 KPSI 4-Axis Bend Test

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Core Diameter (µm)</th>
<th>Cladding Diameter (µm)</th>
<th>Coating Diameter (µm)</th>
<th>Bend Radius Short Term/Long Term (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UVS100/110/140H2A</td>
<td>100 ± 2</td>
<td>110 ± 2.2</td>
<td>150 ± 15</td>
<td>≥ 11/22</td>
</tr>
<tr>
<td>UVS200/220/280H2A</td>
<td>200 ± 4</td>
<td>220 ± 4.4</td>
<td>280 ± 28</td>
<td>≥ 22/44</td>
</tr>
<tr>
<td>UVS300/330/430H2A</td>
<td>300 ± 6</td>
<td>330 ± 6.6</td>
<td>430 ± 43</td>
<td>≥ 33/66</td>
</tr>
<tr>
<td>UVS400/440/530H2A</td>
<td>400 ± 8</td>
<td>440 ± 8.8</td>
<td>530 ± 53</td>
<td>≥ 44/88</td>
</tr>
</tbody>
</table>