PANDA PM Bend Insensitive
Polarization Maintaining Fibers for Bend Sensitive Applications

Specialty Optical Fibers

PANDA PM Specialty Fibers are designed with the best polarization maintaining properties, and are the industry standard in the world today. PANDA PM Bend Insensitive Specialty Optical Fiber is designed with significantly improved bending capacity, suited to meet the needs of package size reductions and 100 Gbps systems.

PANDA PM fibers are optimized for high reliability, and our Boron-doped stress rod profile is field proven to support high growth applications over a wide temperature range.

PANDA PM Specialty Optical Fiber design uses two stress applying parts to create an extremely high birefringence, resulting in fiber with excellent polarization maintaining properties. This design was invented and patented by Corning Incorporated. Corning continues to have a manufacturing partnership with Fujikura Ltd.

Applications

- Small package size transponders, transceivers, modulators, and laser fiber assemblies
- Sensors
- Bend sensitive applications
- Miniaturized components
- Polarization sensitive components

Key Optical Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>PMBI 1550</th>
<th>PMSR 1550</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Wavelength (nm)</td>
<td>1550</td>
<td></td>
</tr>
<tr>
<td>Cutoff Wavelength (nm)</td>
<td>≤ 1440</td>
<td></td>
</tr>
<tr>
<td>Maximum Attenuation (dB/km)</td>
<td>≤ 3.0</td>
<td>≤ 0.50</td>
</tr>
<tr>
<td>Mode-field Diameter (μm)</td>
<td>9.0 ± 0.4</td>
<td>9.5 ± 0.4</td>
</tr>
<tr>
<td>Maximum Beat Length (mm)</td>
<td>3.0</td>
<td>2.0 - 5.0</td>
</tr>
<tr>
<td>Maximum Cross Talk at 100 m (dB)</td>
<td>≤ - 30</td>
<td></td>
</tr>
<tr>
<td>Maximum Bending Cross Talk (dB) (λ = 1550 nm, bending diameter = 15 mm, 10 turns)</td>
<td>≤ - 30</td>
<td></td>
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</tbody>
</table>

Features

- Significantly improved bending capacity
- Extremely high birefringence
- Single-mode design
- Fibers available with dual-layer UV acrylate and flame retardant polyester coatings
## Key Geometric, Mechanical, and Environmental Specifications

### 245 μm + 400 μm UV/UV Acrylate Coating

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<thead>
<tr>
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<tbody>
<tr>
<td>Bending Radius (mm)</td>
<td>R7.5</td>
<td>R15.0</td>
<td>R15.0</td>
</tr>
<tr>
<td>Cladding Outside Diameter (μm)</td>
<td>125 ± 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coating Outside Diameter (μm)</td>
<td>245 ± 15</td>
<td>245 ± 15</td>
<td>400 ± 15</td>
</tr>
<tr>
<td>Core-to-Cladding Concentricity (μm)</td>
<td></td>
<td>≤ 0.5</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature (°C)</td>
<td>- 40 to +85*</td>
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<td></td>
</tr>
<tr>
<td>Standard Lengths</td>
<td>100 m, 200 m, 300 m, 400 m, 500 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proof Test (kpsi)</td>
<td></td>
<td>200</td>
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</tbody>
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### Flame Retardant Coating

#### 500 μm + 900 μm Polyester-Elastomer Coating

*Polyester-Elastomer Coating is a UL® recognized component plastic with a flammability classification of V-O in accordance with UL94. Fibers with this coating have a VW-1 end product flammability classification in accordance with UL1581.*

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<td>500 ± 50</td>
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<td>900 ± 100</td>
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*Without coiling on a shipping reel

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For more information about Corning’s leadership in Specialty Fiber technology, visit our website at [www.corning.com/specialtyfiber](http://www.corning.com/specialtyfiber)

To obtain additional technical information, an engineering sample or to place an order for this product, please contact us at:

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