Photosensitive Single-Mode Fibers

Coherent photosensitive fibers are designed to reduce grating-writing times associated with industry-standard telecommunication fiber and can be easily spliced. These photosensitive fibers provide cost-savings for grating-writing because customers can write highly repeatable, quality gratings in a short time.

Typical Applications

- WDM
- Gain flattening filters
- Dispersion compensators
- Pump stabilizers

Features & Benefits

- Enhanced photosensitivity — Shorter grating writing time
- Mode-matched to transmission fibers — Low splice loss
- Tightly controlled specifications — Excellent uniformity

Optical Specifications	GF1	GF1AA	GF3	GF1B
Operating Wavelength	1500 – 1600 nm	1500 – 1600 nm	1500 – 1600 nm	1500 – 1600 nm
Core NA	0.130	0.130	0.160	0.130
Mode Field Diameter	9.3 ± 0.5 µm @ 1310 nm 10.5 ± 1.0 µm @ 1550 nm	10.5 ± 0.8 µm @ 1550 nm	7.5 ± 0.5 µm @ 1550 nm	10.4 ± 0.8 µm @ 1550 nm
Cutoff	1260 ± 75 nm	1350 ± 100 nm	1350.00 ± 50.00 nm	1260 ± 100 nm
Core Attenuation	N/A	N/A	N/A	≤ 0.50 dB/km @ 1550 nm
Geometrical & Mechanical Specifications				
Cladding Diameter	125.0 ± 1.5 µm	125.0 ± 1.5 µm	125.0 ± 1.0 µm	125.0 ± 1.0 µm
Core Diameter	9.0 µm	8.5 µm	7.0 µm	9.0 µm
Coating Diameter	250.0 ± 20.0 µm	250.0 ± 20.0 µm	245.0 ± 15.0 µm	245.0 ± 15.0 µm
Coating Concentricity	< 5.0 µm	< 5.0 µm	< 5.00 µm	< 5.0 µm
Core/Clad Offset	≤ 0.50 µm	≤ 1.00 µm	≤ 0.50 µm	≤ 0.50 µm
Coating Material	Acrylate	Acrylate	Acrylate	Acrylate
Operating Temperature Range	-55 to 85 °C	-55 to 85 °C	-55 to 85 °C	-55 to 85 °C
Short Term Bend Radius	≥ 12 mm	≥ 12 mm	≥ 12 mm	≥ 12 mm
Long Term Bend Radius	≥ 25 mm	≥ 25 mm	≥ 25 mm	≥ 25 mm
Prooftest Level	≥ 100 kpsi (0.7 GN/m²)	≥ 100 kpsi (0.7 GN/m²)	≥ 100 kpsi (0.7 GN/m²)	≥ 100 kpsi (0.7 GN/m²)

COHERENT

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www.coherent.com ; www.shop.coherent.com • Coherent products are manufactured under an ISO 9001:2008 certified quality management system.

RoHS compliant

Custom developed fiber (FUD) specifications are subject to change without notice. Other configurations such as alternative form factors, optimized cut-off and UV cured color coating may be available. Let us know how Coherent can assist with your requirements.

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