



EyeSafe Delivery Fibers

Nufern has specifically engineered a unique range of single-mode 2 μ m beam delivery fibers for the long wavelength EyeSafe window from 1850-2200nm, available in both PM and non-PM versions. By applying our extensive fiber manufacturing expertise, gained in the demanding telecommunications industry, this family of fibers have excellent uniformity and high fatigue failure resistance. These fibers are aimed at emerging fiber applications for the 2 μ m wavelength, including medical, military/aerospace and industrial fiber laser markets.

Typical Applications

- Pigtailling 2 μ m components
- Tm-fiber lasers/amplifiers
- 2 μ m beam delivery

Features & Benefits

- Optimized for 2 μ m wavelengths — Higher performance
- Low bend loss at 2 μ m — Tighter packaging
- Tight tolerances — High product yield

Optical Specifications

Operating Wavelength (nominal)	1850 - 2200 nm	1850 - 2200 nm
Mode Field Diameter (nominal)	8.0 μ m @ 1950 nm	8.0 μ m @ 1950 nm
Second Mode Cut-Off	1720 \pm 80 nm	1720 \pm 80 nm
Core Numerical Aperature (nominal)	0.20	0.20
Beat Length	NA	\leq 5.2 mm @ 1950 nm
Birefringence	NA	3.5×10^{-4}

SM1950

PM1950

Geometrical & Mechanical Specifications

Core Diameter (nominal)	7 μ m	7 μ m
Clad Diameter	125 \pm 1 μ m	125 \pm 1 μ m
Coating Diameter	245 \pm 15 μ m	245 \pm 15 μ m
Core-Clad Offset	< 0.5 μ m	< 0.5 μ m
Coating Clad Concentricity	\leq 5 μ m	\leq 5 μ m
Coating Material	UV Cured, Dual Acrylate	UV Cured, Dual Acrylate
Operating Temperature	- 40 to + 85°C	- 40 to + 85°C
Proof Test Level	\geq 100 kpsi (0.7 GN/m ²)	\geq 100 kpsi (0.7 GN/m ²)

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RoHS



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東京本社 〒160-0014 東京都新宿区内藤町1番地 内藤町ビルディング
 TEL: 03 (3356) 1064 FAX: 03 (3356) 3466 E-mail: info@optoscience.com
 大阪支店 〒532-0011 大阪市淀川区西中島7-7-2 新大阪ビル西館
 TEL: 06 (6305) 2064 FAX: 06 (6305) 1030 E-mail: osk@optoscience.com
 名古屋営業所 〒450-0002 名古屋市中村区名駅2-37-21 東海ソフトビル
 TEL: 052 (569) 6064 FAX: 052 (569) 8064 E-mail: ngo@optoscience.com