



# EyeSafe Delivery Fibers

Nufern has specifically engineered a unique range of single-mode 2µm 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 has excellent uniformity and high fatigue failure resistance. These fibers are aimed at emerging fiber applications for the 2µm wavelength, including medical, military/aerospace and industrial fiber laser markets.

## Typical Applications

- Pigtailling 2µm components
- Tm-fiber lasers/amplifiers
- 2µm beam delivery

## Features & Benefits

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

### Optical Specifications

Operating Wavelength	1850 - 2200 nm	1850 - 2200 nm
Mode Field Diameter (nominal)	8.0 µm @ 1950 nm	8.0 µm @ 1950 nm
Second Mode Cut-Off	1720 ± 80 nm	1720 ± 80 nm
Core Numerical Aperture (nominal)	0.20	0.20
Beat Length (nominal)	NA	5.2 mm @ 1950 nm
Birefringence (nominal)	NA	3.5 x 10 <sup>-4</sup>

### SM1950

### PM1950

### Geometrical & Mechanical Specifications

Core Diameter (nominal)	7 µm	7 µm
Clad Diameter	125 ± 1 µm	125 ± 1 µm
Coating Diameter	245 ± 15 µm	245 ± 15 µm
Core-Clad Offset	≤ 0.5 µm	≤ 0.5 µm
Coating Clad Concentricity	≤ 5 µm	≤ 5 µm
Coating Material	UV Cured, Dual Acrylate	UV Cured, Dual Acrylate
Operating Temperature	- 40 to + 85°C	- 40 to + 85°C
Proof Test Level	≥ 100 kpsi (0.7 GN/m <sup>2</sup> )	≥ 100 kpsi (0.7 GN/m <sup>2</sup> )

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 Nufern products are manufactured under an ISO 9001:2000 certified quality management system.



Standard specifications and design parameters are listed above. 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 Nufern can assist with your requirements.