

# 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

	SM1950	PM1950
Operating Wavelength	1850 – 2200 nm	1850 – 2200 nm
Core NA	0.200	0.200
Mode Field Diameter	8.0 µm @ 1950 nm (nominal)	8.0 µm @ 1950 nm (nominal)
Cutoff	1720 ± 80 nm	1720 ± 80 nm
Beat Length (nominal)	N/A	5.2 mm @ 1950 nm
Birefringence	N/A	nominal $3.5 \times 10^{-4}$

## Geometrical & Mechanical Specifications

Cladding Diameter	125.0 ± 1.0 µm	125.0 ± 1.0 µm
Core Diameter	7.0 µm	7.0 µm
Coating Diameter	245.0 ± 15.0 µm	245.0 ± 15.0 µm
Coating Concentricity	< 5.0 µm	< 5.0 µm
Core/Clad Offset	≤ 0.50 µm	≤ 0.50 µm
Coating Material	UV Cured, Dual Acrylate	UV Cured, Dual Acrylate
Operating Temperature Range	-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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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.