Eye Safe 9/125 Thulium-Doped Single-Mode Single Clad Fibers

This single clad, small core diameter fiber is designed specifically for use in core-pumped cavities. As the fiber is polarization maintaining, it is also suitable for applications requiring linearly polarized output.

Typical Applications

- Low/mid power 2 µm CW & pulsed Eye Safe lasers & amplifiers
- Eye Safe industrial & medical lasers
- Military & commercial LIDAR
- 2 µm fiber lasers for pumping crystal lasers

Features & Benefits

- Small diameter Tm-doped core design — Robust single mode beam quality
- May be pumped with 793 nm diodes or resonantly pumped using a fiber laser
- High pump absorption — Short fiber length, efficient lasing in the ~2 µm window
- Core pumping facilitates access to shorter lasing wavelengths below 1900 nm

Optical Specifications	**PM-TSF-9/125**
Operating Wavelength	1900 – 2100 nm
Core NA	0.150
Mode Field Diameter (predicted)	10.5 µm @ 2000 nm (nominal)
Cutoff	1750 ± 100 nm
Core Absorption	9.00 ± 2.00 dB/m at 1180 nm 27.00 dB/m at 793 nm
Birefringence (predicted)	nominal 2.5×10^{-4}
Geometrical & Mechanical Specifications	
Cladding Diameter	125.0 ± 1.0 µm
Core Diameter	9.0 µm
Coating Diameter	245.0 ± 15.0 µm
Coating Concentricity	< 20.0 µm
Core/Clad Offset	≤ 0.50 µm
Coating Material	Acrylate
Prooftest Level	≥ 100 kpsi (0.7 GN/m²)

The passive version of each fiber is also available.

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RoHS

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 Nufern can assist with your requirements.