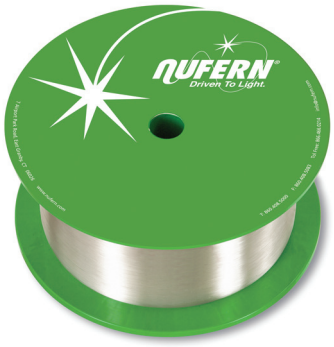


Triple Clad Ytterbium–Doped Polarization Maintaining Fibers

Nufern's Yb-doped triple-clad fibers are specifically designed to match industry standard diode power delivery fibers. As with our highly successful double clad fiber series these fibers are available with either single-mode or Nufern's robustly single-mode LMA core technology. These fibers incorporate PANDA-style stress elements for superior polarization maintaining properties. The triple clad fibers utilize an additional 0.23 NA inner glass cladding waveguide. This additional feature ensures splice-ability with beam or pump delivery fibers and high power connectorization. It additionally provides an all glass primary waveguide for highest long-term power level capacity.

Typical Applications

- PM fiber lasers and amplifier
- Very high power PM fiber lasers & amplifiers
- Lasers & amplifiers with classically spliced pumps
- Connectorized lasers & amplifiers

Features & Benefits

LMA core technology — Robustly single-mode high output power with reduced non-linearities

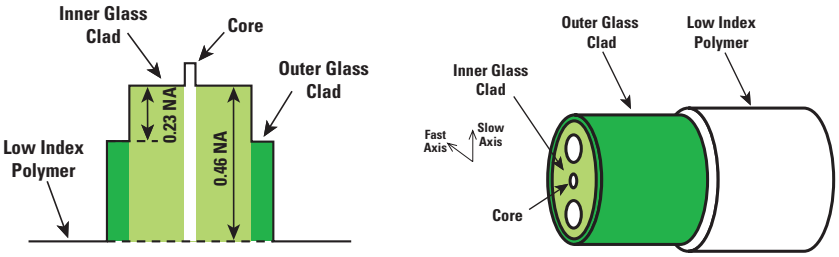
0.23 NA inner glass cladding — Compatibility to fiber coupled pumps, compatibility to standard connectors

PANDA-style PM — Superior performance

Proprietary low Index coating — Captures otherwise spilled light in challenging designs

Optical Specifications	PM-YTF-5/105/125	PLMA-YTF-20/300/330	PLMA-YTF-30/300/330
Operating Wavelength (nominal)	1060 – 1115 nm	1060 – 1115 nm	1060 – 1115 nm
Cladding Absorption	0.80 ± 0.15 dB/m @ 915 nm	0.60 ± 0.15 dB/m @ 915 nm	1.4 ± 0.3 dB/m @ 915 nm
Cladding Absorption (nominal)	2.5 dB/m @ 975 nm	2.0 dB/m @ 975 nm	4.5 dB/m @ 975 nm
Core Numerical Aperture	0.12 (nominal)	0.06 ± 0.01	0.06 ± 0.01
Mode Field Diameter	7 ± 1 µm @ 1060 nm		
Second Mode Cutoff	960 ± 70 nm		
Inner Cladding Numerical Aperture (nominal)	0.23	0.23	0.23
Outer Cladding Numerical Aperture (nominal)	0.46	0.46	0.46
Birefringence (nominal)	2.0×10^{-4}	3.5×10^{-4}	3.0×10^{-4}
Geometrical & Mechanical Specifications			
Core Diameter		20 ± 2 µm	30 ± 3 µm
Inner Clad Diameter	105 ± 5 µm	300 ± 15 µm	300 ± 15 µm
Outer Clad Diameter	125 ± 1 µm	330 ± 15 µm	330 ± 15 µm
Coating Diameter	245 ± 15 µm	470 ± 20 µm	470 ± 20 µm
Inner Cladding Material	Silica	Silica	Silica
Outer Cladding Material	Glass	Glass	Glass
Coating Material	Low Index Polymer	Low Index Polymer	Low Index Polymer
Proof Test Level (Radius Bend Method)	≥100 kpsi (0.7 GN/m²)	≥75 kpsi (0.5 GN/m²)	≥75 kpsi (0.5 GN/m²)

Note: *The passive version of this fiber is also available.*



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