



25/250 Ytterbium-Doped LMA Double Clad Fibers

Nufern's 25/250 Ytterbium-doped double clad fiber is ideally suited for high peak power pulsed fiber amplifier applications. Based on a waveguide structure that supports less modes than the 30/250 fiber, this fiber is incorporated into components and monolithic designs where maintaining beam quality can be more difficult. Both non-PM and PANDA-style PM fibers are available, as are a range of support fibers for component and pigtail development efforts. As with all Nufern standard Large Mode Area (LMA) fibers, these fibers are proof-tested to 100 kpsi, an industry requirement for long term reliability when coiling for mode filtering.

Typical Applications

- High peak power amplifiers
- LIDAR
- Material processing
- Non-linear optics/frequency doubling

Features & Benefits

- LMA core design and short amplifier length — Useful for generating high peak powers
- "Few" moded core design — Easy to maintain single mode LP01 beam through fiber & components
- PANDA-style stress structure for increased birefringence — Superior optical performance and uniformity
- All fiber proof tested to ≥ 100 kpsi — Critical for ensuring long term reliability when coiling

Optical Specifications

Operating Wavelength (nominal)	1060– 1115 nm	1060– 1115 nm
Cladding Absorption @ 915 nm	1.7 \pm 0.2 dB/m	1.6 \pm 0.2 dB/m
Cladding Absorption @ 975 nm (nominal)	5.1 dB/m	4.8 dB/m
Core Numerical Aperture	0.06 \pm 0.01	0.06 \pm 0.01
Cladding Numerical Aperture (5%)	≥ 0.46	≥ 0.46
Birefringence (nominal)	2.0 x 10 ⁻⁴	NA

PLMA-YDF-25/250-VIII

LMA-YDF-25/250-VIII

Geometrical & Mechanical Specifications

Core Diameter	25.0 \pm 2.5 μ m	25.0 \pm 2.5 μ m
Clad Diameter	250 \pm 10 μ m	250 \pm 10 μ m
Coating Diameter	400 \pm 20 μ m	400 \pm 20 μ m
Outer Cladding Material	Low Index Polymer	Low Index Polymer
Proof Test Level (radius bend method)	≥ 100 kpsi (0.7 GN/m ²)	≥ 100 kpsi (0.7 GN/m ²)

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



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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.