



10/400 Ytterbium-Doped LMA Double Clad Fibers

Nufern's Large Mode Area (LMA) Ytterbium-Doped Double Clad Fiber is ideal for high power fiber lasers and amplifiers used in military, industrial, and medical applications. LMA Yb-doped fibers enable efficient, compact, diode pumped fiber sources that are an attractive alternative to traditional solid-state lasers. This fiber features a 10/400 core/cladding size with a low NA (0.075) core, > 77% slope efficiency, > 100W CW output power and is suitable for use in single-mode applications.

Typical Applications

- High power fiber lasers
- CW amplifiers
- Military, industrial and medical
- Single-mode applications

Features & Benefits

- NuCOAT™ fluoroacrylate coating — Greater fiber durability in extreme environmental operating & storage condition
- 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	1060 – 1115 nm	1060 – 1115 nm
Core NA	0.077 ± 0.007	0.077 ± 0.007
First Cladding NA (5%)	≥ 0.46	≥ 0.46
Core Attenuation	≤ 20.0 dB/km @ 1200 nm	≤ 15.0 dB/km @ 1200 nm
Cladding Attenuation	≤ 15.0 dB/km @ 1095 nm	≤ 15.0 dB/km @ 1095 nm
Cladding Absorption	0.20 ± 0.04 dB/m at 915 nm	0.20 ± 0.04 dB/m at 915 nm
	0.60 dB/m near 975 nm	0.60 dB/m near 975 nm
Birefringence	nominal 3×10^{-4}	N/A

Geometrical & Mechanical Specifications

Cladding Diameter	400.0 ± 10.0 μm	N/A
Cladding Diameter (flat-to-flat)	N/A	400.0 ± 10.0 μm
Core Diameter	11.5 ± 1.0 μm	11.5 ± 1.0 μm
Coating Diameter	550.0 ± 15.0 μm	550.0 ± 15.0 μm
Core/Clad Offset	≤ 2.50 μm	≤ 2.50 μm
Proof test Level	≥ 100 kpsi (0.7 GN/m ²)	≥ 100 kpsi (0.7 GN/m ²)

The passive version of each fiber is also available - see PLMA GDF-10/400 and LMA GDF-10/400



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Nufern products are manufactured under an ISO 9001:2008 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.

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