



10/130 Ytterbium-Doped LMA Double Clad Fiber

Featuring the latest Gen VIII glass composition, Nufern's large mode area (LMA) and PM-LMA Ytterbium-doped double clad fibers are ideally suited for applications spanning military, industrial and medical including linearly polarized fiber lasers and amplifiers. 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 single mode large core/cladding ratio with a low NA and is ideally suited for both CW and pulsed laser applications.

Typical Applications

- Pulsed fiber lasers and amplifiers
- Material processing
- LIDAR
- Non-linear optics / frequency doubling

Features & Benefits

- NuCOAT fluoroacrylate coating — Greater fiber durability in extreme environmental operating & storage conditions
- LMA core design and short amplifier length — Useful for generating high peak powers
- 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
Core NA
First Cladding NA (5%)
Cladding Attenuation
Cladding Absorption

Birefringence

PLMA-YDF-10/125-VIII

1060 – 1115 nm
0.075
≥ 0.460
≤ 15.0 dB/km @ 1095 nm
1.60 ± 0.20 dB/m at 915 nm
4.80 dB/m near 976 nm
nominal 3×10^{-4}

LMA-YDF-10/130-VIII

1060 – 1115 nm
0.075
≥ 0.46
≤ 15.0 dB/km @ 1095 nm
1.30 ± 0.20 dB/m at 915 nm
3.90 dB/m near 975 nm
N/A

Geometrical & Mechanical Specifications

Cladding Diameter
Cladding Diameter (flat-to-flat)
Core Diameter
Coating Diameter
Core/Clad Offset
Coating Material
Proof test Level

125.0 ± 2.0 μm
N/A
11.0 ± 1.0 μm
245.0 ± 15.0 μm
≤ 1.00 μm
Low Index Polymer
≥ 100 kpsi (0.7 GN/m²)

N/A
130.0 ± 3.0 μm
11.0 ± 1.0 μm
245.0 ± 15.0 μm
≤ 1.00 μm
Low Index Polymer
≥ 100 kpsi (0.7 GN/m²)

The precision matched fiber sets are also available - see PLMA-YDF-10/125-M; LMA YDF-10/130-M; PLMA-GDF-10/125-M and LMA-GDF-10/130-M



7 Airport Park Road, East Granby, CT 06026 • 860.408.5000 • Toll-free 866.466.0214 • Fax 860.844.0210 • E-mail info@nufern.com • www.nufern.com • Nufern products are manufactured under an ISO 9001:2008 certified quality management system.

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.

