



High Absorption 30/250 Ytterbium-Doped LMA Double Clad Fiber

Nufern high absorption 30/250 Ytterbium-doped double clad fibers based on Gen. VIII glass composition, offers a higher Yb dopant concentration than our original 30/250 LMA fibers. These fibers are specifically designed for short pulse amplification where fiber length is a critical design factor because of very high peak powers. The high absorption enables very short fiber amplifier lengths without sacrificing efficiency. Short pulse fiber amplifiers can be considered low-cost replacements for Nd:YAG lasers used in materials processing, LIDAR and range finding applications. This high absorption 30/250 Large Mode Area fiber is available in both a standard and a PANDA-style PM format.

Typical Applications

- Short pulse fiber amplifiers & lasers
- Materials processing
- LIDAR
- Range finding
- CW fiber amplifiers and lasers

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
- “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
- Higher Yb dopant concentration — Higher absorption & superior long-term performance

Optical Specifications

Operating Wavelength
Core NA
First Cladding NA (5%)
Cladding Attenuation
Cladding Absorption

Birefringence

PLMA-YDF-30/250-HI-8

1060 – 1115 nm
0.060 ± 0.010
≥ 0.46
≤ 15.0 dB/km @ 1095 nm
2.40 ± 0.20 dB/m at 915 nm
7.20 dB/m near 975 nm
1.5 × 10⁻⁴

LMA-YDF-30/250-HI-8

1060 – 1115 nm
0.060 ± 0.010
≥ 0.46
N/A
2.10 ± 0.20 dB/m at 915 nm
6.30 dB/m near 975 nm
N/A

Geometrical & Mechanical Specifications

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

250.0 ± 10.0 μm
N/A
30.0 ± 2.5 μm
400.0 ± 20.0 μm
Low Index Polymer
≥ 100 kpsi (0.7 GN/m²)

N/A
250.0 ± 10.0 μm
30.0 ± 2.5 μm
400.0 ± 20.0 μm
Low Index Polymer
≥ 100 kpsi (0.7 GN/m²)

The passive version of each fiber is also available - see PLMA-GDF-30/250 and LMA-GDF-30/250



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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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