

25/300 Passive LMA Double Clad Fibers



Nufern's passive series of Large Mode Area (LMA) double clad fibers are ideal for high power monolithic fiber lasers and amplifiers. These passive fibers are based on a 25 micron diameter core and 300 micron diameter clad size with a low NA (0.09) core and are designed to work well with the active Er/Yb co-doped 25/300 LMA and PLMA fibers. These fibers utilize the latest fiber design and NuCOAT™ coating technology to ensure excellent preservation of beam quality and extended operating life at the high power levels demanded by today's industrial fiber laser applications. These fibers are available in both non-PM and PANDA-style PM fibers

Typical Applications

- Eye safe (1.5 μm) lasers and amplifiers
- Military and commercial lidar
- High peak power, pulsed fiber amplifiers
- Ultra-short pulse fiber amplifiers

Features & Benefits

- Designed for compatibility with 25/300 Er/Yb co-doped active fibers
- NuCOAT™ fluoroacrylate coating — Greater fiber durability in extreme environmental operating & storage conditions
- Optimized LMA core design — Easy to maintain single mode LP01 beam through fiber & components at high power
- 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
Birefringence

PLMA-GDF-25/300

1530 – 1800 nm
0.090
 ≥ 0.46
 $\leq 15.0 \text{ dB/km @ } 1095 \text{ nm}$
nominal 1.5×10^{-4}

LMA-GDF-25/300

1530 – 1800 nm
0.090
 ≥ 0.46
 $\leq 15.0 \text{ dB/km @ } 1095 \text{ nm}$
N/A

Geometrical & Mechanical Specifications

Cladding Diameter
Core Diameter
Coating Diameter
Core/Clad Offset
Clad Non-Circularity
Coating Material
Proof test Level

$300.0 \pm 8.0 \mu\text{m}$
 $25.0 \pm 2.0 \mu\text{m}$
 $450.0 \pm 15.0 \mu\text{m}$
 $\leq 2.00 \mu\text{m}$
N/A
Low Index Polymer
 $\geq 100 \text{ kpsi (} 0.7 \text{ GN/m}^2 \text{)}$

$300.0 \pm 4.0 \mu\text{m}$
 $25.0 \pm 2.0 \mu\text{m}$
 $450.0 \pm 15.0 \mu\text{m}$
 $\leq 2.00 \mu\text{m}$
 $\leq 0.5 \%$
Low Index Polymer
 $\geq 100 \text{ kpsi (} 0.7 \text{ GN/m}^2 \text{)}$

Designed to work with 25/300 LMA and PLMA Er/Yb co-doped active fibers



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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.

