

# 30/250 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 30  $\mu\text{m}$  diameter core and 250  $\mu\text{m}$  diameter clad size with a low NA (0.06) core and are designed to work well with the active Yb-doped 30/250 LMA 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

- Monolithic high power fiber lasers and amplifiers
- LMA fiber couplers, and pump combiners
- High power pump and signal pigtails
- Military, industrial and medical

## Features & Benefits

- NuMATCH™ — Optimized compatibility with 30/250 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

	PLMA-GDF-30/250	LMA-GDF-30/250-M
Operating Wavelength	1060 – 1600 nm	1060 – 1600 nm
Core NA	0.060 $\pm$ 0.010	0.062 $\pm$ 0.005
First Cladding NA (5%)	$\geq$ 0.46	$\geq$ 0.46
Core Attenuation	N/A	$\leq$ 45.0 dB/km @ 1300 nm $\leq$ 30.0 dB/km @ 1200 nm
Cladding Attenuation	$\leq$ 15.0 dB/km @ 1095 nm	$\leq$ 15.0 dB/km @ 1095 nm
Birefringence	nominal $2 \times 10^{-4}$	N/A

## Geometrical & Mechanical Specifications

	PLMA-GDF-30/250	LMA-GDF-30/250-M
Cladding Diameter	250.0 $\pm$ 10.0 $\mu\text{m}$	247.0 $\pm$ 3.0 $\mu\text{m}$
Core Diameter	30.0 $\pm$ 2.5 $\mu\text{m}$	30.0 $\pm$ 2.0 $\mu\text{m}$
Coating Diameter	400.0 $\pm$ 20.0 $\mu\text{m}$	395.0 $\pm$ 15.0 $\mu\text{m}$
Core/Clad Offset	N/A	$\leq$ 2.00 $\mu\text{m}$
Clad Non-Circularity	N/A	$\leq$ 0.5 %
Prooftest Level	$\geq$ 100 kpsi (0.7 GN/m <sup>2</sup> )	$\geq$ 100 kpsi (0.7 GN/m <sup>2</sup> )



M05-A-031-A

Coating Requirements: Low Index Polymer Coating.  
Designed to work with 30/250 LMA Yb-doped active fibers.



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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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