

30/250 Passive LMA Double Clad Fibers



Nuferm'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 μm diameter core and 250 μm 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

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

PLMA-GDF-30/250

1060 – 1600 nm
0.060 \pm 0.010
 \geq 0.46
N/A
 \leq 15.0 dB/km @ 1095 nm
nominal 2×10^{-4}

LMA-GDF-30/250-M

1060 – 1600 nm
0.062 \pm 0.005
 \geq 0.46
 \leq 45.0 dB/km @ 1300 nm
 \leq 30.0 dB/km @ 1200 nm
 \leq 15.0 dB/km @ 1095 nm
N/A

Geometrical & Mechanical Specifications

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

250.0 \pm 10.0 μm
30.0 \pm 2.5 μm
400.0 \pm 20.0 μm
N/A
N/A
 \geq 100 kpsi (0.7 GN/m²)

247.0 \pm 3.0 μm
30.0 \pm 2.0 μm
395.0 \pm 15.0 μm
 \leq 2.00 μm
 \leq 0.5 %
 \geq 100 kpsi (0.7 GN/m²)



M05-A-030-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 Nuferm can assist with your requirements.