

# 20/250 Precision Matched Passive LMA Double Clad PM Fiber



Coherent | Coherent's Polarization Maintaining LMA (PLMA) passive double clad fiber is ideal for high power fiber lasers and amplifiers used in military, industrial, and medical applications. This fiber features a 20 micron diameter core and 250 micron diameter clad size with a low NA (0.09) core. It is precision matched to its active ErYb-doped 20P/250 PLMA matched counterpart to ensure excellent splice compatibility and low loss. As with all Coherent | Coherent standard Large Mode Area (LMA) fibers, this fiber is proof-tested to 100 kpsi, an industry requirement for long term reliability. The fiber utilizes the latest fiber design and NuCOAT-FA 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.

## Typical Applications

- High peak power amplifiers
- LIDAR
- Material processing
- Non-linear optics/frequency doubling

## Features & Benefits

- NuCOAT-FA fluoroacrylate coating — Greater fiber durability in extreme environmental operating & storage conditions
- LMA core design — Useful for transmitting high CW 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
- 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-20/250-09M 1363793

800 – 1650 nm  
0.090 ± 0.007  
≥ 0.46  
≤ 15.0 dB/km @ 1095 nm  
nominal  $1.5 \times 10^{-4}$

## Geometrical & Mechanical Specifications

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

250.0 ± 5.0 μm  
20.0 ± 1.5 μm  
350.0 ± 10.0 μm  
≤ 2.00 μm  
≤ 2.0 %  
Low Index Acrylate  
≥ 100 kpsi (0.7 GN/m<sup>2</sup>)



Active fiber PLMA-EYDF-20P/250-XPB

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www.coherent.com ; www.shop.coherent.com • Coherent 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 Coherent can assist with your requirements.

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