

25/400 Ultra Matched+ Passive LMA Double Clad Fiber



Coherent's Ultra Matched+ (M+) Large Mode Area (LMA) passive double clad fibers are ideal for high power fiber lasers and amplifiers used in military, industrial, and medical applications. These fibers feature a 25 micron diameter core and 400 micron diameter clad size with a low NA (0.065) core. These M+ fibers represent the next generation of matched fibers. They are matched with ultra-high precision to their active 25/400 LMA M+ counterparts to ensure excellent splice compatibility and low loss. As with all Coherent standard Large Mode Area (LMA) fibers, these fibers are proof-tested to 100 kpsi, an industry requirement for long term reliability. The M+ fibers are specified to the tightest specifications including the MFD, and use NuCOAT™ coating technology ensuring excellent preservation of beam quality and extending operating life at the high power levels demanded by today's industrial fiber laser applications.

Typical Applications

- High peak power lasers & amplifiers
- LIDAR
- Material Processing
- Non-linear optics/frequency doubling

Features & Benefits

- Ultra Matched (M+) — Providing the lowest possible splice loss
- NuCOAT™ 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
- All fiber proof tested to > 100 kpsi — Critical for ensuring long term reliability when coiling

Optical Specifications

Operating Wavelength	1060 – 1600 nm
Core NA	0.065 ± 0.005
First Cladding NA (5%)	≥ 0.46
Mode Field Diameter	19.2 ± 1.2 μm @ 1060 nm
Core Attenuation	≤ 15.0 dB/km @ 1200 nm ≤ 30.0 dB/km @ 1300 nm
Cladding Attenuation	≤ 15.0 dB/km @ 1095 nm

LMA-GDF-25/400-M+

Geometrical & Mechanical Specifications

Cladding Diameter	395.0 ± 3.0 μm
Core Diameter	25.0 ± 1.5 μm
Coating Diameter	550.0 ± 15.0 μm
Core/Clad Offset	≤ 1.20 μm
Clad Non-Circularity	≤ 0.5 %
Proof test Level	≥ 100 kpsi (0.7 GN/m ²)



The ultra matched active fiber is also available - see LMA-YDF-25/400-M+

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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.