

20/400 NuGEN9 Precision Matched Active LMA Double Clad Fiber



NuGEN9 active fibers offer the most advanced glass composition and fiber design and are all precision matched to their passive counterpart ensuring excellent splice compatibility and low loss. This fiber is a Yb-doped Large Mode Area (LMA) active double clad fiber featuring a 20 micron diameter core and 400 micron clad diameter with a low NA (0.065) core. This fiber is ideal for high power fiber lasers and amplifiers used in military, industrial, and medical applications. NuGEN9 fibers feature an optimized glass composition enabling higher absorption with superior photodarkening performance. These fibers are proof-tested to 100 kpsi, an industry requirement for long term reliability. NuGEN9 fibers are exclusively offered with Coherent's proprietary NuCOAT-FA coating technology with the best wet and dry heat performance available, ensuring excellent preservation of beam quality and extended operating life.

Typical Applications

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

Features & Benefits

- NuGEN9 fiber design — Providing higher absorption with superior reliability & photodarkening performance
- NuCOAT-FA fluoroacrylate coating — Excellent wet and dry heat performance for extended life in extreme conditions
- "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

Optical Specifications

Operating Wavelength	1015 – 1115 nm
Core NA	0.065 ± 0.005
First Cladding NA (5%)	≥ 0.46
Core Attenuation	≤ 30.0 dB/km @ 1300 nm ≤ 15.0 dB/km @ 1200 nm
Cladding Attenuation	≤ 15.0 dB/km @ 1095 nm
Cladding Absorption	0.48 ± 0.06 dB/m at 915 nm
Slope Efficiency	> 70.0% @ 915 nm

LMA-YDF-20/400-9M

Geometrical & Mechanical Specifications

Cladding Diameter (flat-to-flat)	400.0 ± 10.0 μm
Core Diameter	20.0 ± 1.5 μm
Coating Diameter	550.0 ± 15.0 μm
Core/Clad Offset	≤ 2.00 μm
Proof test Level	≥ 100 kpsi (0.7 GN/m ²)



The ultra matched passive fiber is also available - see LMA-GDF-20/400-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.

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