

10/200 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 10 micron diameter core and 200 micron clad diameter with a low NA (0.08) core. This fiber is ideally suited for applications spanning 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

- Pulsed fiber lasers and amplifiers
- Material processing
- LIDAR
- Non-linear optics/frequency doubling

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
- LMA core design and short amplifier length — Useful for generating high peak 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	1015 – 1115 nm
Core NA	0.080 ± 0.005
First Cladding NA (5%)	≥ 0.46
Cladding Attenuation	≤ 15.0 dB/km @ 1095 nm
Cladding Absorption	0.60 ± 0.10 dB/m at 915 nm

Geometrical & Mechanical Specifications

Cladding Diameter (flat-to-flat)	205.0 ± 4.0 μm
Core Diameter	10.0 ± 1.0 μm
Coating Diameter	350.0 ± 10.0 μm
Core/Clad Offset	≤ 1.20 μm
Coating Material	Low Index Acrylate
Proof test Level	≥ 100 kpsi (0.7 GN/m ²)

LMA-YDF-10/200-9M



The precision matched passive version of this fiber is also available - see LMA-GDF-10/200-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.

10/200 Precision Matched Passive LMA Double Clad Fiber



Coherent's large mode area (LMA) passive double clad fiber is ideally suited for applications spanning military, industrial and medical including linearly polarized fiber lasers and amplifiers. This fiber features a 10 micron diameter core and 200 micron diameter clad size with a low NA (0.08) core. This fiber is precision matched to its active Yb-doped 10/200 LMA matched counterparts to ensure excellent splice compatibility and low loss. As with all Coherent standard LMA fibers, this fiber is proof-tested to 100 kpsi, an industry requirement for long term reliability. It utilizes the latest fiber design and features NuCOAT-FA coating technology to ensure excellent preservation of beam quality and extended operating life demanded by today's industrial fiber laser applications.

Typical Applications

- Pulsed fiber lasers and amplifiers
- Material processing
- LIDAR
- Non-linear optics/frequency doubling

Features & Benefits

- NuCOAT-FA fluoroacrylate coating — Greater fiber durability in extreme environmental operating & storage conditions
- Bend insensitive — Survives application in tight confines
- Optimized LMA core design — Easy to maintain single mode LP01 beam through fiber & components at high power
- Precision Matched (M) — Providing low splice loss
- All fiber proof tested to > 100 kpsi — Critical for ensuring long term reliability

Optical Specifications

Operating Wavelength	1015 – 1115 nm
Core NA	0.080 ± 0.005
First Cladding NA (5%)	≥ 0.46
Core Attenuation	≤ 40.0 dB/km @ 1300 nm ≤ 20.0 dB/km @ 1200 nm

LMA-GDF-10/200-M

Geometrical & Mechanical Specifications

Cladding Diameter	200.0 ± 3.0 μm
Core Diameter	10.0 ± 1.0 μm
Coating Diameter	350.0 ± 10.0 μm
Core/Clad Offset	≤ 1.20 μm
Clad Non-Circularity	≤ 0.5 %
Coating Material	Low Index Polymer NuCOAT-FA
Proof-test Level	≥ 100 kpsi (0.7 GN/m ²)



Designed to work with 10/200 LMA Yb-doped active fibers, especially LMA-YDF-10/200-9M

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