20/125 NuGEN9 Precision Matched Ytterbium-Doped LMA Double Clad Fiber

NuGEN9 active fibers offer the most advanced glass composition. This fiber is a Yb-doped Large Mode Area (LMA) active double clad fiber featuring a 20 micron diameter core and 125 micron clad diameter with a low NA (0.080) 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 | 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. The fiber is designed to be precision matched to its passive counterpart ensuring excellent splice compatibility and low loss.

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	**LMA-YDF-20/125-9M** **1363668**
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	5.40 ± 0.60 dB/m at 915 nm 16.50 dB/m near 976 nm
Geometrical & Mechanical Specifications	
Cladding Diameter (flat-to-flat)	125.0 ± 1.5 µm
Core Diameter	20.0 ± 1.5 µm
Coating Diameter	245.0 ± 10.0 µm
Coating Concentricity	< 5.0 µm
Core/Clad Offset	≤ 1.00 µm
Coating Material	Low Index Acrylate
Prooftest Level	≥ 100 kpsi (0.7 GN/m²)

COHERENT

Coating Non-Circularity < 2%
Precision matched passive available — LMA-GDF-20/125-M

Nufern • 7 Airport Park Road, East Granby, CT 06026 • 860.408.5000 • Toll-free 866.466.0214 • Fax 860.844.0210 • Email: tech.sales@coherent.com
www.coherent.com ; www.shop.coherent.com • Coherent products are manufactured under an ISO 9001:2008 certified quality management system.

RoHS compliant

20/125 Precision Matched Passive LMA Fiber

Coherent | Coherent's large mode area (LMA) passive double clad fibers are ideally suited for applications spanning military, industrial and medical including linearly polarized fiber lasers and amplifiers. This fiber features a 20 micron diameter core and 125 micron diameter clad size with a low NA (0.08) core. The fiber is precision matched to it's LMA Yb-doped 20/125 matched counterpart to ensure excellent splice compatibility and low loss. As with all Coherent | Coherent standard 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 the double clad fiber 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
- 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 when coiling

Optical Specifications	**LMA-GDF-20/125-M** **1341630**
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
Cladding Attenuation	≤ 15.0 dB/km @ 1095 nm
Geometrical & Mechanical Specifications	
Cladding Diameter	125.0 ± 1.0 µm
Core Diameter	20.0 ± 1.5 µm
Coating Diameter	245.0 ± 10.0 µm
Coating Concentricity	< 5.0 µm
Core/Clad Offset	≤ 0.70 µm
Clad Non-Circularity	≤ 0.5 %
Coating Material	Low Index Acrylate
Prooftest Level	≥ 100 kpsi (0.7 GN/m²)

COHERENT

Coating Non-Circularity < 2%
Precision matched to LMA-YDF-20/125-9M

Nufern • 7 Airport Park Road, East Granby, CT 06026 • 860.408.5000 • Toll-free 866.466.0214 • Fax 860.844.0210 • Email: tech.sales@coherent.com
www.coherent.com ; www.shop.coherent.com • Coherent products are manufactured under an ISO 9001:2008 certified quality management system.

RoHS compliant

NU0317- 11/12/2020