



8/130 NuGEN9 Precision Matched Active SM 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 single mode (SM) active double clad fiber featuring an 8 micron diameter core and 130 micron clad diameter with a core NA of 0.095. 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 Nufern'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
- "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 | 0.095 |
| First Cladding NA (5%) | ≥ 0.46 |
| Mode Field Diameter | 8.3 ± 0.5 μm @ 1060 nm |
| Cutoff | 980.0 ± 50.0 nm |
| Cladding Attenuation | ≤ 15.0 dB/km @ 1095 nm |
| Cladding Absorption | 1.00 ± 0.15 dB/m at 915 nm |

Geometrical & Mechanical Specifications

| | |
|----------------------------------|-------------------------------------|
| Cladding Diameter (flat-to-flat) | 130.0 ± 1.5 μm |
| Core Diameter | 8.6 μm |
| Coating Diameter | 245.0 ± 10.0 μm |
| Coating Concentricity | < 5.0 μm |
| Core/Clad Offset | ≤ 0.70 μm |
| Coating Material | Low Index Polymer NuCOAT-FA |
| Proof test Level | ≥ 100 kpsi (0.7 GN/m ²) |

SM-YDF-8/130-9M

Precision matched passive versions of this fiber are also available - see SM-GSF-8/130-M & SM-GDF-8/130-M



7 Airport Park Road, East Granby, CT 06026 • 860.408.5000 • Toll-free 866.466.0214 • Fax 860.844.0210 • E-mail info@nufern.com • www.nufern.com • Nufern 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 Nufern can assist with your requirements.

