

# 30/250 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 30 micron diameter core and 250 micron clad diameter with a low NA (0.06) core. This fiber is ideal for high power monolithic fiber lasers and amplifiers. 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**

#### **Features & Benefits**

- · Materials processing
- LIDAR
- Range finding CW fiber amplifiers and lasers
- Short pulse fiber amplifiers & lasers 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**

#### LMA-YDF-30/250-9M

Operating Wavelength Core NA First Cladding NA (5%) Cladding Attenuation Cladding Absorption Slope Efficiency

1015 - 1115 nm  $0.062 \pm 0.005$ ≥ 0.46 ≤ 15.0 dB/km @ 1095 nm  $2.50 \pm 0.30 \, dB/m$  at 915 nm

> 70.0%@ 915 nm

**Geometrical & Mechanical Specifications** 

Cladding Diameter (flat-to-flat) Core Diameter Coating Diameter

Core/Clad Offset Coating Material

Prooftest Level

 $250.0 \pm 5.0 \, \mu m$  $30.0 \pm 2.0 \, \mu m$  $395.0 \pm 15.0 \, \mu m$ ≤ 2.00 µm Low Index Polymer NuCOAT-FA

 $\geq$  100 kpsi (0.7 GN/m<sup>2</sup>)

The ultra matched passive version of this fiber is also available - see LMA-GDF-30/250-M+



