25/250 with 0.09 NA Matched Passive LMA Double Clad Fiber



Coherent's Large Mode Area (LMA) passive double clad fiber are ideal for high power fiber lasers and amplifiers used in military, industrial, and medical applications. This fiber features a 25 micron diameter core and 250 micron diameter clad size with a low NA (0.09) core. It is precision matched to Tm-doped 25P/250 LMA 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 NuCOAT-FA™ coating technology to ensure excellent preservation of beam quality and extended operating life at the high power levels demanded by today's industrial fiber laser applications.

Typical Applications

- Eye Safe lasers & amplifiers
- Military and commercial lidar
- ~2 µm fiber lasers for pumping solid state Ho lasers
- High peak power pulsed fiber amplifiers

Features & Benefits

- NuCOAT_{FA}™ fluoroacrylate coating Greater fiber durability in extreme environmental operating & storage conditions
- Unique LMA core design Useful for transmitting high CW powers
- "Few" moded core design Easy to maintain single mode LPO1 beam through fiber & components
- Tight geometric tolerances Superior optical performance and uniformity
- All fiber proof tested to > 100 kpsi Critical for ensuring long term reliability when coiling

Optical Specifications

Operating Wavelength Core NA First Cladding NA (5%) Cladding Attenuation

LMA-GDF-25/250-09M

800 - 2100 nm 0.090 ± 0.010 ≥ 0.460 $\leq 15.0 \text{ dB/km @ 1095 nm}$

Geometrical & Mechanical Specifications

Cladding Diameter
Core Diameter
Coating Diameter
Core/Clad Offset
Clad Non-Circularity
Coating Material
Prooftest Level

 $247.0 \pm 3.0 \,\mu\text{m}$ $24.0 \pm 1.5 \,\mu\text{m}$ $395.0 \pm 15.0 \,\mu\text{m}$ $\leq 2.00 \,\mu\text{m}$ $\leq 0.5 \,\%$ Low Index Acrylate $\geq 100 \,\text{kpsi} \,(0.7 \,\text{GN/m}^2)$



