

Low Index Specialty Multimode Beam Delivery Fibers



Coherent's passive, Germanium-doped, low NA specialty beam delivery fibers are designed to complement standard Coherent Ytterbium-doped fibers such as LMA-YDF-20/400-M, LMA-YDF-25/250-M and LMA-YDF-30/250-M. These Germanium-doped fibers are available with a high 0.11 NA and 25 micron core, in both 250 and 400 micron form factors. These fibers can be spliced with low losses to the 0.06 NA fibers and ensure good beam stability as the low power is delivered to the work piece. Both offerings have NuCOAT-FA™ coating technology, which provides excellent reliability at elevated power levels demanded by today's industrial fiber laser applications. As with all Coherent fibers, they are drawn in a clean room and proof-tested to > 100 kpsi, allowing them to carry high powers for a long, worry-free lifetime.

Typical Applications

- Beam Delivery for CW & Pulsed Lasers
- Fiber Coupled Isolators
- Military, Industrial and Medical

Features & Benefits

- Complimentary high NA passive fibers — ensures continuation of excellent beam quality
- Exceptional geometric uniformity and core/clad concentricity — Ease of splicing to active fibers
- NuCOAT-FA™ coating technology — provides an extended operating life at high power levels
- Proof-tested to > 100 kpsi — an industry requirement for long term reliability.

Optical Specifications

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

BD-G25/250-11FA

800 – 2100 nm
0.110 ± 0.010
≥ 0.460
≤ 15.0 dB/km @ 1095 nm

BD-G25/400-11FA

800 – 2100 nm
0.110 ± 0.010
≥ 0.460
≤ 15.0 dB/km @ 1095 nm

Geometrical & Mechanical Specifications

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

250.0 ± 3.0 μm
25.0 ± 1.5 μm
395.0 ± 15.0 μm
≤ 2.00 μm
≤ 0.5 %
Low Index Acrylate
≥ 100 kpsi (0.7 GN/m²)

400.0 ± 5.0 μm
25.0 ± 1.5 μm
550.0 ± 15.0 μm
≤ 2.00 μm
≤ 0.5 %
Low Index Acrylate
≥ 100 kpsi (0.7 GN/m²)



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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.