6/125 Precision Matched Passive Single-Mode 1550-nm Double Clad Fiber

Coherent's precision matched single-mode passive double-clad fibers are available in two-versions — PANDA-style, polarization-maintaining (PM) and non-PM. These fibers feature a 6 µm core diameter and a 125 µm clad diameter optimized to match Coherent's active Er/Yb 6/125 µm fibers. This precise matching allows for the lowest splice loss improving performance for all applications including telecom optical amplifiers at 1550 nm. They utilize the latest fiber design and NuCOAT™ coating technology to ensure excellent preservation of beam quality and extended operating life demanded by today's industrial fiber laser applications.

Typical Applications

- Telecom amplifiers
- Laser delivery/fluorescence

Features & Benefits

- NuCOAT™ fluoroacrylate coating — Greater fiber durability in extreme environmental operating & storage conditions
- Exceptional uniformity and core/clad concentricity — Low connectorization losses
- Bend insensitive — Survives application in tight confines
- All fiber proof tested to > 100 kpsi — Critical for ensuring long term reliability

Optical Specifications	**PM-GDF-6/125-M**	**SM-GDF-6/125-M**
Operating Wavelength	1530 – 1625 nm	1530 – 1625 nm
Core NA	0.180	0.180
First Cladding NA (5%)	≥ 0.46	≥ 0.460
Mode Field Diameter	6.8 ± 0.8 µm @ 1550 nm	6.8 ± 0.8 µm @ 1550 nm
Cutoff	1440 ± 80 nm	1440 ± 80 nm
Core Attenuation	≤ 10.0 dB/km @ 1550 nm	≤ 6.00 dB/km @ 1550 nm
Cladding Attenuation	≤ 15.0 dB/km @ 1095 nm	≤ 15.0 dB/km @ 1095 nm
Birefringence	1×10^{-4}	N/A
Geometrical & Mechanical Specifications		
Cladding Diameter	125.0 ± 1.0 µm	125.0 ± 1.0 µm
Core Diameter	6 µm	6 µm
Coating Diameter	245.0 ± 10.0 µm	245.0 ± 10.0 µm
Coating Concentricity	< 5.0 µm	< 5.0 µm
Core/Clad Offset	≤ 0.50 µm	≤ 0.50 µm
Prooftest Level	≥ 100 kpsi (0.7 GN/m²)	≥ 100 kpsi (0.7 GN/m²)

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Coating Requirements: Low Index Polymer Coating.
Other Requirements: Round Fiber

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

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