

# 12/130 Precision Matched Passive 1550 nm Double Clad Fibers



Coherent's precision matched passive double-clad fibers are available in two-versions — multimoded and PANDA-style, polarization-maintaining (PM). These fibers feature a 12  $\mu\text{m}$  core diameter and a 130  $\mu\text{m}$  clad diameter optimized to match Coherent's active Er/Yb 12/130  $\mu\text{m}$  fibers. This precise matching allows for the lowest splice loss improving performance for all applications including high power pulsed fiber lasers and amplifiers. 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

- LIDAR
- Eye-safe lasers and amplifiers
- High power pulsed fiber lasers and amplifiers

## 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-12/130-M	MM-GDF-12/130-M
Operating Wavelength	1530 – 1800 nm	1530 – 1800 nm
Core NA	0.200	0.200
First Cladding NA (5%)	$\geq 0.460$	$\geq 0.460$
Normalized Cross Talk	$\leq -25.0$ dB at 10 m @ 1300 nm	N/A

## Geometrical & Mechanical Specifications

	PM-GDF-12/130-M	MM-GDF-12/130-M
Cladding Diameter	$130.0 \pm 1.0$ $\mu\text{m}$	$130.0 \pm 1.0$ $\mu\text{m}$
Core Diameter	$12.0 \pm 1.5$ $\mu\text{m}$	$12.0 \pm 1.5$ $\mu\text{m}$
Coating Diameter	$245.0 \pm 10.0$ $\mu\text{m}$	$245.0 \pm 10.0$ $\mu\text{m}$
Coating Concentricity	$< 5.0$ $\mu\text{m}$	$< 5.0$ $\mu\text{m}$
Core/Clad Offset	$\leq 1.00$ $\mu\text{m}$	$\leq 1.00$ $\mu\text{m}$
Proof test Level	$\geq 100$ kpsi (0.7 GN/m <sup>2</sup> )	$\geq 100$ kpsi (0.7 GN/m <sup>2</sup> )



Coating Requirements: Low Index Polymer Coating.  
Other Requirements: Round fiber. Polarization-maintaining fiber with dual circular stress elements

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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.

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