

PM 5/125 Neodymium-Doped Double-Clad Fiber



Coherent's Neodymium doped PM-double clad fiber is specifically designed for efficient single mode operation around 1060 nm when cladding pumped at 808nm. A 6 μm mode field diameter allows low splice losses to standard single mode fibers and the 125 μm cladding diameter is compatible with a variety of industry standard pump combiners. The polarization maintaining design enables construction of pulsed and CW PM fiber amplifiers.

Typical Applications

- CW and pulsed fiber lasers
- PM fiber amplifiers
- An alternative to Yb-doped fibers for 1060 nm operation

Features & Benefits

- Single-mode core — Perfect beam quality, compatible with standard single-mode fibers
- PANDA-style stress structure for increased birefringence — Superior optical performance and uniformity

Optical Specifications

Operating Wavelength	1060 – 1115 nm
Core NA	0.150
First Cladding NA (5%)	≥ 0.46
Mode Field Diameter	$6.0 \pm 1.0 \mu\text{m}$ @ 1060 nm
Cutoff	$980 \pm 50 \text{ nm}$
Cladding Absorption	$1.0 \pm 0.3 \text{ dB/m}$ at 808 nm
Birefringence	nominal 2.8×10^{-4}

PM-NDF-5/125

Geometrical & Mechanical Specifications

Cladding Diameter	$125.0 \pm 2.0 \mu\text{m}$
Core Diameter	$5.0 \mu\text{m}$
Coating Diameter	$245.0 \pm 15.0 \mu\text{m}$
Second Cladding Material	Low Index Polymer
Proof test Level	$\geq 100 \text{ kpsi}$ (0.7 GN/m^2)



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.



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.

NU0071- 11/12/2020