

# Polarization Maintaining 980 nm Telecommunication Fibers



Nufern's Polarization Maintaining Telco fibers are designed for today's most advanced networks. Optimized for use at 980 nm, these fibers are used in all PM applications for data and telecom. Nufern has applied its unique manufacturing facility and capabilities to this product area and has established leading optical, mechanical and geometrical tolerances. The bend insensitive versions of our fibers offer lowest bend loss and extinction ratios at small bend diameters enabling our customers to reduce package sizes. Available in either 250 or 400 micron coating diameters and prooftested to 200 kpsi, Nufern's PM fibers will meet the demands of all current and future applications.

## Typical Applications

- Pump pigtails
- Grating stabilizers
- PM patchcords
- Polarization sensitive devices

## Features & Benefits

- Tight specifications — Highly deterministic results, highest product yield
- High fatigue failure resistance — Longest service life
- Bend insensitive — Survives application in tight geometries (B version)
- All fiber proof tested to > 200 kpsi — Critical for ensuring long term reliability

## Optical Specifications

Operating Wavelength  
Core NA  
Mode Field Diameter  
Maximum Bend Loss  
  
Cutoff  
Core Attenuation  
Beat Length  
Normalized Cross Talk  
  
Bending Cross Talk

### PM980-XP

970 – 1550 nm  
0.120  
6.6 ± 0.5 μm @ 980 nm  
N/A  
  
920 ± 50 nm  
≤ 2.5 dB/km @ 980 nm  
≤ 2.7 mm @ 980 nm  
≤ -40.0 dB at 4 m @ 980 nm  
≤ -30.0 dB at 100 m @ 980 nm  
N/A

### PM980B-XP

970 – 1550 nm  
0.120  
6.6 ± 0.5 μm @ 980 nm  
0.5 dB at 980 nm, 25 mm OD, 10 turns  
920 ± 50 nm  
≤ 2.5 dB/km @ 980 nm  
≤ 2.7 mm @ 980 nm  
≤ -40.0 dB at 4 m @ 980 nm  
≤ -30.0 dB at 100 m @ 980 nm  
-30 dB at 980 nm, 25 mm OD, 10 turns

### PM980-400

970 – 1550 nm  
0.120  
6.6 ± 0.5 μm @ 980 nm  
N/A  
  
920 ± 50 nm  
≤ 2.5 dB/km @ 980 nm  
≤ 2.7 mm @ 980 nm  
≤ -40.0 dB at 4 m @ 980 nm  
≤ -30.0 dB at 100 m @ 980 nm  
N/A

### PM980B-400

970 – 1550 nm  
0.120  
6.6 ± 0.5 μm @ 980 nm  
0.5 dB at 980 nm, 25 mm OD, 10 turns  
920 ± 50 nm  
≤ 2.5 dB/km @ 980 nm  
≤ 2.7 mm @ 980 nm  
≤ -40.0 dB at 4 m @ 980 nm  
≤ -30.0 dB at 100 m @ 980 nm  
-30 dB at 980 nm, 25 mm OD, 10 turns

## Geometrical & Mechanical Specifications

Cladding Diameter  
Core Diameter  
Coating Diameter  
Coating Concentricity  
Core/Clad Offset  
Coating Material  
Operating Temperature Range  
Prooftest Level

125.0 ± 1.0 μm  
5.5 μm  
245.0 ± 15.0 μm  
< 5.0 μm  
≤ 0.50 μm  
UV Cured, Dual Acrylate  
-40 to 85 °C  
≥ 200 kpsi (1.4 GN/m<sup>2</sup>)

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M05-A-032-A

Special Core Dopants: SiO<sub>2</sub>/GeO<sub>2</sub>.



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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 Nufern can assist with your requirements.

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