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	PM980-XP	PM980B-XP	PM980-400	PM980B-400
Operating Wavelength	970 – 1550 nm	970 – 1550 nm	970 – 1550 nm	970 – 1550 nm
Core NA	0.120	0.120	0.120	0.120
Mode Field Diameter	6.6 ± 0.5 µm @ 980 nm	6.6 ± 0.5 µm @ 980 nm	6.6 ± 0.5 µm @ 980 nm	6.6 ± 0.5 µm @ 980 nm
Maximum Bend Loss	N/A	0.5 dB at 980 nm, 25 mm OD, 10 turns	N/A	0.5 dB at 980 nm, 25 mm OD, 10 turns
Cutoff	920 ± 50 nm	920 ± 50 nm	920 ± 50 nm	920 ± 50 nm
Core Attenuation	≤ 2.5 dB/km @ 980 nm	≤ 2.5 dB/km @ 980 nm	≤ 2.5 dB/km @ 980 nm	≤ 2.5 dB/km @ 980 nm
Beat Length	≤ 2.7 mm @ 980 nm	≤ 2.7 mm @ 980 nm	≤ 2.7 mm @ 980 nm	≤ 2.7 mm @ 980 nm
Normalized Cross Talk	≤ - 40.0 dB at 4 m @ 980 nm ≤ - 30.0 dB at 100 m @ 980 nm	≤ - 40.0 dB at 4 m @ 980 nm ≤ - 30.0 dB at 100 m @ 980 nm	≤ - 40.0 dB at 4 m @ 980 nm ≤ - 30.0 dB at 100 m @ 980 nm	≤ - 40.0 dB at 4 m @ 980 nm ≤ - 30.0 dB at 100 m @ 980 nm
Bending Cross Talk	N/A	-30 dB at 980 nm, 25 mm OD, 10 turns	N/A	-30 dB at 980 nm, 25 mm OD, 10 turns
Geometrical & Mechanical Specifications				
Cladding Diameter	125.0 ± 1.0 µm	125.0 ± 1.0 µm	125.0 ± 1.0 µm	125.0 ± 1.0 µm
Core Diameter	5.5 µm	5.5 µm	5.5 µm	5.5 µm
Coating Diameter	245.0 ± 15.0 µm	245.0 ± 15.0 µm	400.0 ± 15.0 µm	400.0 ± 15.0 µm
Coating Concentricity	< 5.0 µm	< 5.0 µm	< 10.0 µm	< 10.0 µm
Core/Clad Offset	≤ 0.50 µm	≤ 0.50 µm	≤ 0.50 µm	≤ 0.50 µm
Coating Material	UV Cured, Dual Acrylate	UV Cured, Dual Acrylate	UV Cured, Dual Acrylate	UV Cured, Dual Acrylate
Operating Temperature Range	-40 to 85 °C	-40 to 85 °C	-40 to 85 °C	-40 to 85 °C
Prooftest Level	≥ 200 kpsi (1.4 GN/m²)	≥ 200 kpsi (1.4 GN/m²)	≥ 200 kpsi (1.4 GN/m²)	≥ 200 kpsi (1.4 GN/m²)

M05-A-033-A

Special Core Dopants: SiO2/GeO2.

NUFERN

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RoHS

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.