



Polarization Maintaining Telecommunication Fibers

The breadth of Nufern's range of Polarization Maintaining fibers is unrivaled. Designed for use from 980 to 1620 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 made substantial optical, mechanical and geometrical tolerance improvements. Furthermore, higher strength and fatigue failure resistance allows customers to achieve more uniform product results and to attain the highest possible manufacturing yields.

Typical Applications

- Lithium niobate modulators, PMD compensators
- Raman gain modules
- Pigtailling

Features & Benefits

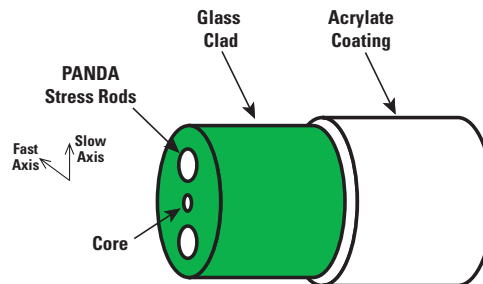
- Tight specifications — Highly deterministic results, highest product yield
- High proof test — Low risk of mechanical handling failure
- High fatigue failure resistance — Longest service life

Optical Specifications

	PM980-XP	PM1300-HP	PM14XX-HP	PM1550-HP
Operating Wavelength (nominal)	970 - 1550 nm	1270 - 1625 nm	1390-1625 nm	1440-1625 nm
Mode Field Diameter	6.6 ± 0.7 μm @ 980 nm	9.5 ± 1.0 μm @ 1300 nm	9.8 ± 0.8 μm @ 1450 nm	10.5 ± 0.8 μm @ 1550 nm
Mode Field Diameter			10.4 ± 0.8 μm @ 1550 nm	
Second Mode Cut-Off	920 ± 50 nm	1200 ± 70 nm	1320 ± 60 nm	1370 ± 70 nm
Attenuation	≤ 2.5 dB/km @ 980 nm	≤ 1 dB/km @ 1300 nm	≤ 1 dB/km @ 1450 nm	≤ 1.0 dB/km @ 1550 nm
Attenuation			≤ 1 dB/km @ 1550 nm	
Normalized Cross Talk at 4 m	≤ -40 dB @ 980 nm	≤ -40 dB @ 1300 nm	≤ -40 dB @ 1550 nm	≤ -40 dB @ 1550 nm
Normalized Cross Talk (nominal) at 100 m	≤ -30 dB @ 980 nm	≤ -30 dB @ 1300 nm	≤ -30 dB @ 1550 nm	≤ -30 dB @ 1550 nm
Beat Length	≤ 2.7 mm @ 980 nm	≤ 4.0 mm @ 1300 nm	≤ 4.7 mm @ 1450 nm	≤ 5.0 mm @ 1550 nm

Geometrical & Mechanical Specifications

Clad Diameter	125 ± 1 μm	125 ± 1 μm	125 ± 1 μm	125 ± 1 μm
Coating Diameter	245 ± 15 μm	245 ± 15 μm	245 ± 15 μm	245 ± 15 μm
Core-Clad Concentricity	< 0.5 μm	< 0.5 μm	< 0.5 μm	< 0.5 μm
Coating/Clad Offset	≤ 5 μm	≤ 5 μm	≤ 5 μm	≤ 5 μm
Coating Material	UV Cured, Dual Acrylate	UV Cured, Dual Acrylate	UV Cured, Dual Acrylate	UV Cured, Dual Acrylate
Operating Temperature	- 40 to + 85°C	- 40 to + 85°C	- 40 to + 85°C	- 40 to + 85°C
Proof Test Level	≥ 200 kpsi (1.4 GN/m ²)	≥ 200 kpsi (1.4 GN/m ²)	≥ 200 kpsi (1.4 GN/m ²)	≥ 200 kpsi (1.4 GN/m ²)



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Nufern products are manufactured under an ISO 9001:2000 certified quality management system.



Standard specifications and design parameters are listed above. 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.