



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

Operating Wavelength (nominal)
 Mode Field Diameter
 Second Mode Cut-Off
 Attenuation
 Normalized Cross Talk
 Normalized Cross Talk (nominal)
 Beat Length

PM980-HP

980 nm
 $6.6 \pm 1.0 \mu\text{m}$ @ 980 nm
 $900 \pm 70 \text{ nm}$
 $\leq 3.0 \text{ dB/km}$ @ 980 nm
 $\leq -40 \text{ dB}$ at 4 m
 $\leq -30 \text{ dB}$ at 100 m
 $\leq 3.3 \text{ mm}$ @ 980 nm

PM1300-HP

1280 - 1340 nm
 $9.5 \pm 1.0 \mu\text{m}$ @ 1300 nm
 $1200 \pm 70 \text{ nm}$
 $\leq 1 \text{ dB/km}$ @ 1300 nm
 $\leq -40 \text{ dB}$ at 4 m
 $\leq -30 \text{ dB}$ at 100 m
 $\leq 4.0 \text{ mm}$ @ 1300 nm

PM14XX-HP

1400-1490 nm
 $9.8 \pm 0.8 \mu\text{m}$ @ 1450 nm
 $1320 \pm 60 \text{ nm}$
 $\leq 1 \text{ dB/km}$ @ 1450 nm
 $\leq -40 \text{ dB}$ at 4 m
 $\leq -30 \text{ dB}$ at 100 m
 $\leq 4.7 \text{ mm}$ @ 1450 nm

PM1550-HP

1490-1620 nm
 $10.5 \pm 0.8 \mu\text{m}$ @ 1550 nm
 $1370 \pm 70 \text{ nm}$
 $\leq 1.0 \text{ dB/km}$ @ 1550 nm
 $\leq -40 \text{ dB}$ at 4 m
 $\leq -30 \text{ dB}$ at 100 m
 $\leq 5.0 \text{ mm}$ @ 1550 nm

Geometrical & Mechanical Specifications

Clad Diameter
 Coating Diameter
 Core-Clad Concentricity
 Coating/Clad Offset
 Coating Material
 Operating Temperature
 Proof Test Level

$125 \pm 1 \mu\text{m}$
 $245 \pm 15 \mu\text{m}$
 $< 0.5 \mu\text{m}$
 $\leq 5 \mu\text{m}$
 UV Cured, Dual Acrylate
 $-40 \text{ to } +85^\circ \text{C}$
 $\geq 200 \text{ kpsi}$ (1.4 GN/m²)

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