Polarization Maintaining Telecommunication Fibers with 400 µm Coating

The breadth of Nufern's range of Polarization Maintaining fibers is unrivaled. Designed for use from 980 to 1620 nm with 400 µm dual acrylate coating, these fibers are used in 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 (prooftested to > 200 kpsi) and improved 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
- Pigtailing

Features & Benefits

- Tight specifications — Highly deterministic results, highest product yield
- High fatigue failure resistance — Longest service life
- High proof test — Low risk of mechanical handling failure
- Robust 400 µm dual acrylate coating
- All fiber proof tested to > 200 kpsi — Critical for ensuring long term reliability when coiling

Optical Specifications	**PM980-400**	**PM1300-400**	**PM14XX-400**	**PM1550-400**
Operating Wavelength	970 – 1550 nm	N/A	1390 – 1625 nm	1490 – 1620 nm
Operating Wavelength (nominal)	N/A	1300 nm	N/A	N/A
Core NA	0.120	0.120	0.125	0.125
Mode Field Diameter	6.6 ± 0.7 µm @ 980 nm	9.0 ± 0.5 µm @ 1300 nm	9.8 ± 0.5 µm @ 1450 nm	10.5 ± 0.5 µm @ 1550 nm
Cutoff	920 ± 50 nm	1200 ± 70 nm	1320 ± 60 nm	1370 ± 70 nm
Core Attenuation	≤ 2.5 dB/km @ 980 nm	≤ 1.0 dB/km @ 1300 nm	≤ 1.0 dB/km @ 1450 nm ≤ 1.0 dB/km @ 1550 nm	≤ 1.0 dB/km @ 1550 nm
Beat Length	≤ 2.7 mm @ 980 nm	≤ 4 mm @ 1300 nm	≤ 4.7 mm @ 1450 nm	≤ 5.0 mm @ 1550 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 @ 1300 nm ≤ - 30.0 dB at 100 m @ 1300 nm	≤ - 40.0 dB at 4 m @ 1550 nm ≤ - 30.0 dB at 100 m @ 1550 nm	≤ - 40.0 dB at 4 m @ 1550 nm
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	8.0 µm	8.0 µm	8.0 µm
Coating Diameter	400.0 ± 15.0 µm	400.0 ± 15.0 µm	400.0 ± 15.0 µm	400.0 ± 15.0 µm
Core/Clad Offset	≤ 0.50 µm	≤ 0.50 µm	≤ 0.50 µm	≤ 0.50 µm
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)

These fibers are also available with 250 µm coating.

NUFERN

7 Airport Park Road, East Granby, CT 06026 • 860.408.5000 • Toll-free 866.466.0214 • Fax 860.844.0210 E-mail info @ nufern.com • www.nufern.com Nufern products are manufactured under an ISO 9001:2008 certified quality management system.

RoHS

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.

NU0163- 02/27/2012