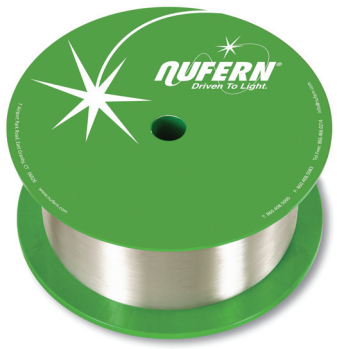


Short Wavelength Pure Silica Core Polarization Maintaining Fibers

Nufern's industry leading short wavelength pure silica core polarization maintaining fibers have superior waveguide, radiation, and mechanical properties, enabling a large variety of applications in diverse markets. High consistency and extreme end-to-end control of optical properties provide particular advantage in spectrographic and frequency sensitive applications. The pure silica core fiber is optimum for demanding applications in the UV and visible spectrum requiring ultra-low attenuation over longer lengths and where resistance to radiation-induced damage and color center formation are critical.

Typical Applications

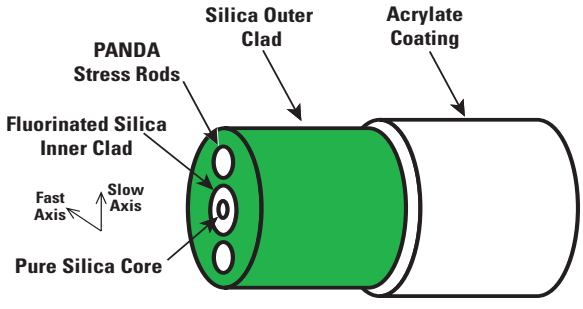
- Laser pigtailing
- Spectroscopy
- Sensors
- Bio-medical
- Metrology

Features & Benefits

- PANDA-style configuration — Superior optical performance, intrinsically good radiation performance
- Tight specifications — Highly deterministic results, highest product yield
- High proof test — Low risk of mechanical damage and failure
- High fatigue failure resistance — Longest service life
- Pure silica core — Resistance to radiation-induced damage and color center formation

Optical Specifications	**PM-S350-HP**	**PM-S405-HP**	**PM-S460-HP**	**PM-S630-HP**
Operating Wavelength (nominal)	350 - 460 nm	400 - 500 nm	460 - 550 nm	630 - 780 nm
Mode Field Diameter ($1/e^2$ fit - near field)	2.3 µm @ 350 nm*	2.5 µm @ 405 nm*	3.5 ± 0.3 µm @ 460 nm	4.2 ± 0.5 µm @ 630 nm
	--	2.8 ± 0.3 µm @ 460 nm	--	--
Second Mode Cut-Off	≤ 340 nm	365 ± 25 nm	420 ± 30 nm	580 ± 40 nm
Attenuation	--	≤ 30 dB/km @ 460 nm	≤ 30 dB/km @ 460 nm	≤ 12 dB/km @ 630 nm
Beat Length (nominal)	1.5 mm @ 350 nm	2.0 mm @ 405 nm	2.3 mm @ 460 nm	4.7 mm @ 630 nm
Numerical Aperture (nominal)	0.12	0.12	0.12	0.12
Birefringence (nominal)	2.5×10^{-4}	2.0×10^{-4}	2.0×10^{-4}	1.3×10^{-4}
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
Core Type	Pure Silica Core	Pure Silica Core	Pure Silica Core	Pure Silica Core
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/m²)	≥ 200 kpsi (1.4 GN/m²)	≥ 200 kpsi (1.4 GN/m²)	≥ 200 kpsi (1.4 GN/m²)

*Nominal value



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