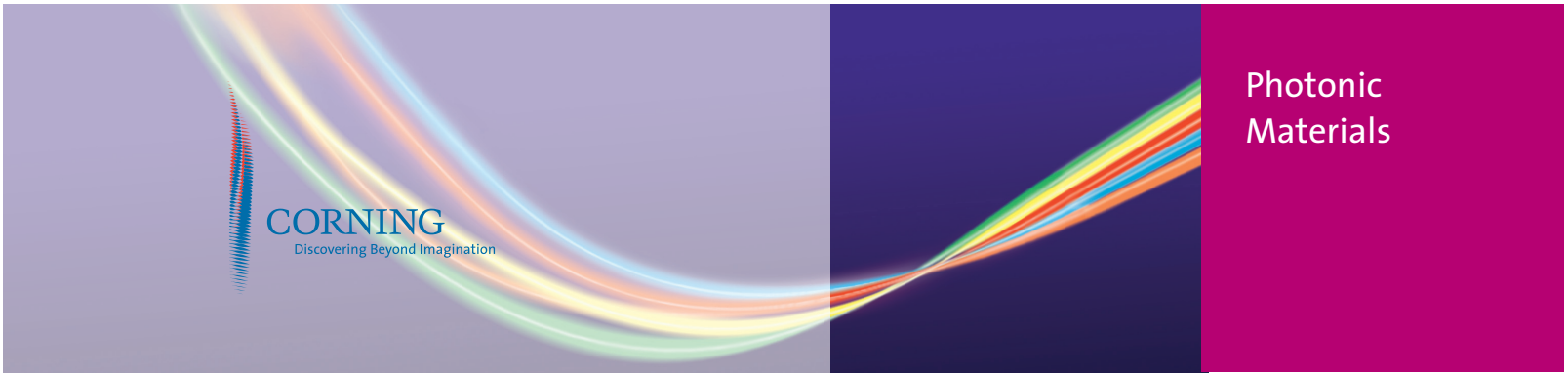
Corning® PANDA PM Specialty Fibers
High Performance Polarization Maintaining Fibers



PI936
Issued: April 2006
Supersedes: March 2006

Corning's PANDA PM Specialty Fibers, designed with the best polarization maintaining properties in the world today, offer low attenuation and excellent birefringence for high performance applications. Available in a wide range of standard operating wavelengths up to 1550 nm, and with a variety of different coating designs, Corning PANDA PM Specialty Fibers are optimal for high performance polarization retaining fiber applications. This field-proven fiber supports high growth applications, and performs well over a wide temperature range. In addition, PANDA PM fiber is available with High Numerical Aperture, Reduced Claddings (80 µm), Low Birefringence, Erbium-doped and Dispersion Shifted designs as well as Polyimide and Flame Retardant Coating options.

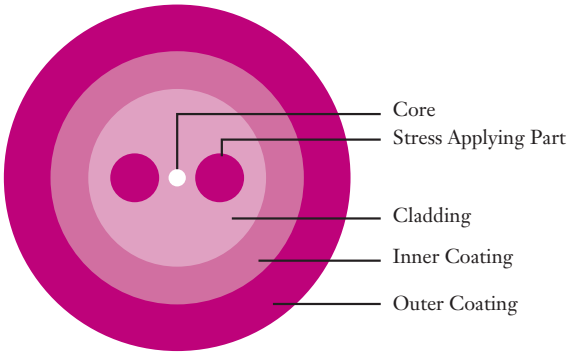
Applications

- High performance transmission laser pigtails
- Polarization-based modulators
- High-data-rate communications systems
- Polarization-sensitive components
- Raman amplifiers
- Fiber optic sensors, gyroscopes and instrumentation

Features

- Extremely high birefringence
- Excellent polarization maintaining properties
- Low attenuation
- Single-mode designs from 400 - 1550 nm
- Dual-layer UV acrylate and 900 µm nylon and silicone coatings available
- Low sensitivity to bending-induced attenuation

Typical Cross-sectional View of Corning PANDA PM Specialty Fiber



The Corning PANDA PM Specialty Fiber design uses two stress applying parts to create an extremely high birefringence, resulting in fiber with excellent polarization maintaining properties. This design was invented and patented by Corning Incorporated. Corning continues to have a manufacturing partnership with Fujikura Ltd.

Key Optical Specifications

Product Type	Wavelength (nm)	Mode-field Diameter (μm)	Beat Length Range (mm)	Maximum Cross Talk at 100 m (dB)	Typical Cross Talk at 4 m (dB)	Cutoff Wavelength (nm)	Maximum Attenuation (dB/km)
PM 1550	1550	10.5 ± 1	3.0-5.0	-30	-40	1290-1450	0.5
PM 14XX	1400-1490	9.8 ± 1	2.8-4.7	-30	-40	1200-1380	1.0
PM 1300	1300	9.5 ± 1	2.5-4.0	-30	-40	1100-1290	1.0
PM 980	980	6.6 ± 1	1.5-2.7	-30	-40	800-950	2.5
PM 850	850	5.5 ± 1	1.0-2.0	-30	-40	650-800	3.0
PM 630	630	4.5 ± 0.5	≤ 2.0	-30	-40	500-620	12
PM 480	480	4.0 ± 0.7	≤ 2.0	-30	-40	400-470	30
PM 400	410	3.7 ± 1	≤ 1.7	-30*	-40	330-400	≤ 50

Note: Maximum H Parameter = 3.2×10^{-5} for all types.

*PM 400 Cross Talk is ≤ -30 dB/100 m at 410 and 480 nm measurement wavelengths.

Key Geometric Specifications

Product Type	Coating Type	Coating Outer Diameter (µm)	Cladding Outer Diameter (µm)	Core-to-cladding Offset (µm)	Product Description
PM 1550	UV/UV Acrylate	245 ± 15	125 ± 1	≤ 0.7	PM 15-U25A
PM 14XX	UV/UV Acrylate	245 ± 15	125 ± 1	≤ 0.7	PM 14-U25A
PM 1300	UV/UV Acrylate	245 ± 15	125 ± 1	≤ 0.7	PM 13-U25A
PM 980	UV/UV Acrylate	245 ± 15	125 ± 1	≤ 0.7	PM 98-U25A
PM 850	UV/UV Acrylate	245 ± 15	125 ± 1	≤ 0.7	PM 85-U25A
PM 480	UV/UV Acrylate	245 ± 15	125 ± 1	≤ 1.6	PM 48-U25A
PM 1550	UV/UV Acrylate	400 ± 15	125 ± 1	≤ 0.7	PM 15-U40A
PM 14XX	UV/UV Acrylate	400 ± 15	125 ± 1	≤ 0.7	PM 14-U40A
PM 1300	UV/UV Acrylate	400 ± 15	125 ± 1	≤ 0.7	PM 13-U40A
PM 980	UV/UV Acrylate	400 ± 15	125 ± 1	≤ 0.7	PM 98-U40A
PM 850	UV/UV Acrylate	400 ± 15	125 ± 1	≤ 0.7	PM 85-U40A
PM 630	UV/UV Acrylate	400 ± 15	125 ± 1	≤ 1.6	PM 63-U40A
PM 480	UV/UV Acrylate	400 ± 15	125 ± 1	≤ 1.6	PM 48-U40A
PM 400	UV/UV Acrylate	400 ± 15	125 ± 1	≤ 1.6	PM 40-U40A
PM 1550*	UV/Nylon	900 ± 100	125 ± 1	≤ 0.7	PM 15-N90A
PM 1300*	UV/Nylon	900 ± 100	125 ± 1	≤ 0.7	PM 13-N90A
PM 980*	UV/Nylon	900 ± 100	125 ± 1	≤ 0.7	PM 98-N90A
PM 850*	UV/Nylon	900 ± 100	125 ± 1	≤ 0.7	PM 85-N90A
PM 630*	UV/Nylon	900 ± 100	125 ± 1	≤ 1.6	PM 63-N90A
PM 480*	UV/Nylon	900 ± 100	125 ± 1	≤ 1.6	PM 48-N90A
PM 400*	UV/Nylon	900 ± 100	125 ± 1	≤ 1.6	PM 40-N90A

General Specifications

Corning PANDA PM Specialty Fibers are available in standard lengths of 100, 200, 300, 400 and 500 meters. Most products available with proof test of 100 kpsi or 200 kpsi, and is applied to the entire length of the fiber. The fiber operates in a temperature range of -40 to 85°C.

* For Nylon 900-micron buffer, operating temperature is -20 to 60°C.

For More Information

For more information about Corning's leadership in specialty fiber technology, visit our website at www.corning.com/photonicmaterials.

To obtain additional technical information or an engineering sample, or to place an order for this product, please contact us:

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