

PANDA PM Bend Insensitive Polarization Maintaining Fibers for Bend-Sensitive Applications



Specialty Optical Fibers

PANDA PM specialty fibers are designed with the best polarization-maintaining properties, and are the industry standard in the world today. PANDA PM bend-insensitive specialty optical fiber is designed with significantly improved bending capacity, suited to meet the needs of package size reductions and 100G and higher data rates.

PANDA PM fibers are optimized for high reliability, and our Boron-doped stress rod profile is field proven to support high-growth applications over a wide temperature range.

PANDA PM specialty optical 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.

Applications

- Coherent transceivers/modulators/components
- Small-package-size transponders, transceivers, modulators, and laser fiber assemblies
- Next-gen datacom and telecom applications where small radius is required
- Bend-sensitive applications
- Miniaturized components
- Polarization-sensitive components
- Tunable lasers
- Sensors

Features

- Significantly improved bending capacity
- Extremely high birefringence
- Best-in-class reliability
- Low bend loss
- Single-mode design
- Fibers available with dual-layer UV acrylate and flame-retardant polyester coatings

Fiber Type	Part Number	Bending Radius
PM Bend Insensitive	PMBI 15	7.5 mm
PM Small Radius	PMSR 15	15 mm

Key Optical Specifications		
Part Number	PMBI 1550	PMSR 1550
Operating Wavelength (nm)	1550	
Cutoff Wavelength (nm)	≤ 1440	
Maximum Attenuation (dB/km)	≤ 3.0	≤ 0.50
Mode-Field Diameter (μm)	9.0 ± 0.4	9.5 ± 0.4
Maximum Beat Length (mm)	3.0	2.0-5.0
Maximum Cross Talk at 100 m (dB)	≤ - 30	
Maximum Bending Cross Talk (dB) (λ = 1550 nm, bending diameter = 15 mm, 10 turns)	≤ - 30	

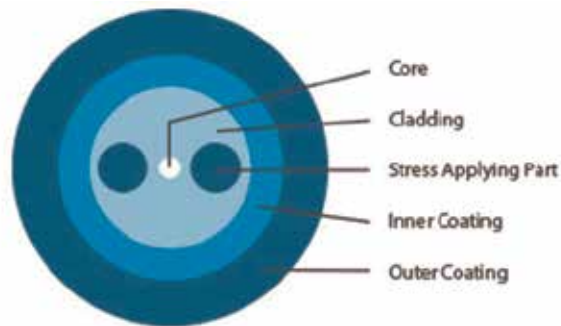
Key Geometric, Mechanical, and Environmental Specifications 245 μm + 400 μm UV/ UV Acrylate Coating			
Part Number	PMBI15-U25D-H	PMSR15-U25D-H	PMSR15-U40D-H
Bending Radius (mm)	R7.5	R15.0	R15.0
Cladding Outside Diameter (μm)	125 ± 1		
Coating Outside Diameter (μm)	245 ± 15	245 ± 15	400 ± 15
Core-to-Cladding Concentricity (μm)	≤ 0.5		
Operating Temperature (°C)	- 40 to +85		
Standard Lengths	100 m, 200 m, 300 m, 400 m, 500 m		
Proof Test (kpsi)	200		

Flame-Retardant Coating
500 µm + 900 µm Polyester-Elastomer Coating

Part Number	PMB115-H50D-H	PMSR15-H50D-H	PMSR15-H90D-H
Bending Radius (mm)	R7.5	R15.0	R15.0
Cladding Outside Diameter (µm)	125 ± 1		
Coating Outside Diameter (µm)	500 ± 50	500 ± 50	900 ± 100
Core-to-Cladding Concentricity (µm)	≤ 0.5		
Operating Temperature (°C)	- 40 to +85*		
Standard Lengths	100 m, 200 m, 300 m, 400 m, 500 m		
Proof Test (kpsi)	200		

*Without coiling on a shipping reel

Note: Polyester-elastomer coating is a UL recognized component plastic with a flammability classification of V-0 in accordance with UL94. Fibers with this coating have a VW-1 end product flammability classification in accordance with UL1581.*



For more information about Corning's leadership in specialty fiber technology, visit our website at [corning.com/specialtyfiber](https://www.corning.com/specialtyfiber).

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

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