# PANDA PM Flame Retardant Specialty Optical Fibers





Polarization
Maintaining
Fibers Buffered
with Polyester
Elastomer

PANDA PM Flame Retardant Specialty Fibers are 400 µm UV coated fibers buffered to 900 μm with a flame retardant polyester elastomer. The buffer is a UL® recognized component plastic with a flammability classification of V-O in accordance with UL94. In addition, the buffered fiber has a VW-1 end product flammability classification in accordance with UL1581. All PANDA PM fibers are designed with the best polarization maintaining properties and are the industry standard in the world today, offer low attenuation and excellent birefringence for high performance applications.

# **Applications:**

- Systems with requirements for low flammability
- Gyroscopes and interferometers
- High performance transmission laser pigtails
- Polarization-based modulators
- High data rate communications systems
- Polarization-sensitive components

### **Features:**

- $\bullet$  Tight buffer composed of polyester elastomer and flame retarder is a UL  $^{\&}$  recognized component plastic with a flammability classification of V-O in accordance with UL94
- Fibers have a VW-1 end product flammability classification in accordance with UL1581
- Extremely high birefringence
- Excellent polarization maintaining properties
- Low attenuation.

	PM 1550	PM14XX	PM 1300	PM 980	PM 850	PM 630	PM 480	PM 400
<b>Key Optical Specifications</b>								
Wavelength (nm)	1550	1400-1490	1300	980	850	630	480	410
Mode-field Diameter (µm)	$10.5\pm0.5$	$9.8\pm0.5$	$9.0\pm0.5$	$6.6 \pm 0.5$	$5.5 \pm 0.5$	$4.5\pm0.5$	$4.0\pm0.5$	$3.5\pm0.5$
Beat Length Range (mm)	3.0-5.0	2.8-4.7	2.5-4.0	1.5-2.7	1.0-2.0	≤ 2.0	≤ 2.0	≤ 1.7
Maximum Cross Talk at 100 m (dB)	-30	-30	-30	-30	-30	-30	-30	-30*
Typical Cross Talk at 4 m (dB)	-40	-40	-40	-40	-40	-40	-40	-40
Cutoff Wavelength (nm)	1300-1440	1260-1380	1130-1270	870-950	650-800	520-620	400-470	330-400
Maximum Attenuation (dB/km)	0.5	1.0	1.0	2.5	3.0	12	30	≤ 50

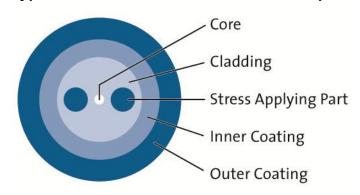
## Key Geometric, Mechanical and Environmental Specifications (-H9oD)

## **UV Polyester-Elastomer**

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Part Number	PM 15-H90D	PM14-H90D	PM 13-H90D	PM98-H90D	PM 85-H90D	PM 63-H90D	PM48-H90D	PM40-H90D		
Core-to-Cladding Offset (µm)	$\leq 0.5$									
Coating Outer Diameter (µm)	$900 \pm 100$									
Cladding Outer Diameter (µm)	$125 \pm 1$									
Standard Lengths*	100 m, 200 m, 300 m, 400 m, 500 m, 1 km									
Proof Test (kpsi)	100 or 200									
Operating Temperature (°C)	-40 to 85									

<sup>\*</sup> For longer lengths contact Corning

# Typical Cross-sectional View of PANDA PM Specialty Optical Fiber



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.

For more information about Corning's leadership in Specialty Fiber technology visit our website at 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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