



VERSION: MD27/3  
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## Pure Silica Core PM Fiber

The Pure Silica Core PM Fiber (HB450-SC) is designed to address the needs of customers requiring Polarization Maintaining (PM) fibers capable of transmitting Ultra Violet (UV), violet, blue and green wavelengths without the photodarkening effects that impact standard germanosilicate core fibers. The fiber is typically used in biomedical type applications, including confocal microscopy, DNA sequencing and flow cytometry and also has uses in environmental monitoring. The fiber is designed to be compatible with Fibercore's Coreless End Cap Fiber (MM125), giving the customers the ability to expand the output beam of the fiber, reducing high power density end effects.

### Advantages:

- Germanium-free pure silica core designed to remove photodarkening effects
- PM design for short wavelength lasers and sensors
- Single-Mode (SM) down to 350nm
- Compatible with Coreless End Cap Fiber (MM125)
- Shorter wavelengths available upon request

### Related Products:

- Pure Silica Core SM Fiber (SM-SC)
- Coreless End Cap Fiber (MM125)

### Product Variants:

- **HB450-SC** Resistant to photodarkening effects from blue and UV wavelength transmission

### Typical applications:

- Confocal microscopy
- Environmental monitoring
- DNA sequencing
- Flow cytometry

### Specifications

	HB450-SC
Operating Wavelength (nm)	430 - 650
Cut-Off Wavelength (nm)	350 - 420
Numerical Aperture	0.11 - 0.13
Mode Field Diameter (µm)	3.0 - 3.6 @488nm
Attenuation (dB/km)	≤30 @488nm
Beat-Length (mm) @633nm	≤2.5
Proof Test (%)	1 (100 kpsi)
Cladding Diameter (µm)	125 ± 1
Coating Diameter (µm)	245 ± 7
Core Concentricity (µm)	≤0.75
Operating Temperature (°C)	-55 to +85