



## MM and Single Mode Fiber PSC Option with High Temperature Polyimide-Carbon Coatings

### Features

- Polyimide and Carbon Coated
- Low Loss
- High strength
- Excellent core/cladding concentricity
- Single Mode or Multimode
- High Radiation Resistance
- Available with Steel tube or PEEK

### Applications

- Oil and Gas
- Downhole
- Avionics
- Fiber Sensors arrays
- Military
- Medical

Test Parameters	Specifications	
	Multimode GI	Single Mode
<b>Geometrical Properties</b>		
Numerical Aperture	0.22 +/- 0.015 $\mu\text{m}$	0.11 to 0.14
Cladding Diameter	125 +/- 1.0 $\mu\text{m}$	125 +/- 1.0 $\mu\text{m}$
Core Diameter	50 $\mu\text{m}$	9.2 $\mu\text{m}$
Cladding Non-Circularity	< 2.0 %	< 2.0 %
Core / Cladding Concentricity Error	< 2 $\mu\text{m}$	< 1 $\mu\text{m}$
Coating Diameter	150 +/-5 $\mu\text{m}$	150 +/-5 $\mu\text{m}$
Coating / Cladding Concentricity error	< 5.0 $\mu\text{m}$	< 1.0 $\mu\text{m}$
Mode Field Diameter	-----	9.5 +/- 0.5 $\mu\text{m}$
<b>Mechanical Properties</b>		
Fiber Proof Test Level	150 (kpsi)	150 (kpsi)
Operating Temperature Range (polyimide-carbon coating)	-55 to +300 °C	-55 to +300 °C
Short Term (10 hrs)	340°C	340°C
<b>Optical Properties</b>		
Attenuation at 1550 nm		$\leq$ 0.6 dB/km
Attenuation at 1310 nm	< 1.3 dB/km	$\leq$ 0.7 dB/km
Attenuation at 850 nm	< 3.1 dB/km	
Cut off Wavelength	N/A	< 1300 nm
Operating Wavelength	800-1750 nm	1310-1750 nm

Also available with High Temperature Acrylate Coating

FL-HT-PIFC-SM-9/125/145  
 FL-PSC-HT-PIFC-SM-9/125/145  
 FL-HT-PIFC-MM-50/125/145  
 FL-PSC-PIFC-MM-50/125/145