

Endlessly Single Mode Photonic Crystal Fiber

SM-10-PCF

This photonic crystal fiber practically offers endlessly single mode operation. The higher order mode cut-off wavelength is actually 1000nm when the fiber is straight. Single mode operation in the visible region can be easily achieved by coiling the PCF with bend radii over 2.5 cm to strip out all the higher order modes. Owing to its relatively large effective mode area, it offers low nonlinearities, thus can handle high peak power as well as very high average power. This fiber also offers low transmission loss in a wide wavelength region and with zero dispersion around 1150nm which allows efficient Raman generation with 1060nm pump laser.

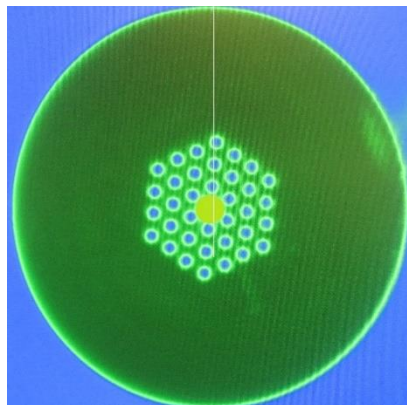
Key Features:

- Mode field diameter adjustable
- Low loss over wide wavelength range
- Robust against bends
- High mechanical strength
- km length available

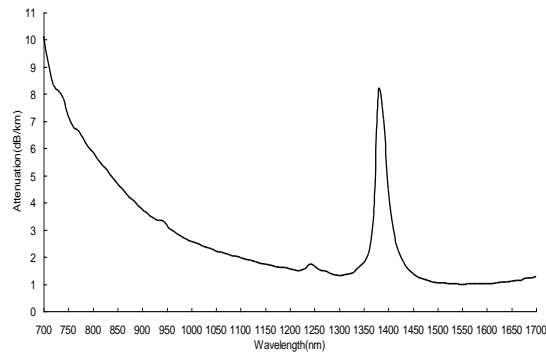
Applications:

- Raman spectroscopy
- Mode filtering
- Transmission experiments
- Terminal fiber to special PCF
- bridging fiber for conventional fibers

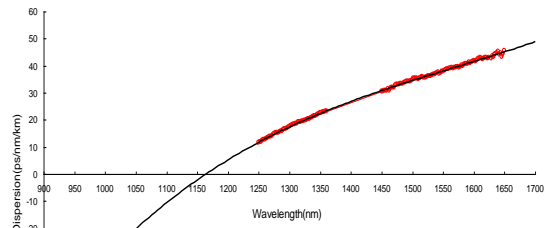
Cross section view:



Typical Attenuation spectrum:



Calculated Dispersion:



Specifications :

OPTICAL PROPERTIES	
Zero dispersion wavelength	1160± 30nm
Cut-off wavelength	<1000 nm
Attenuation @ 1060nm	< 3.0 dB/km
Attenuation @ 1310nm	<2.0 dB/km
Attenuation @ 1550nm	<1.5 dB/km
PHYSICAL PROPERTIES	
Material	Pure silica
Core diameter	9.5±0.5 μm
Cladding diameter	125±2 μm
Coating diameter	245±5 μm
Coating material	Acrylate
Available length	Upto 3km