NKT Photonics
the power of light

Crystal Fibre • *aero*LASE • Koheras • SuperK

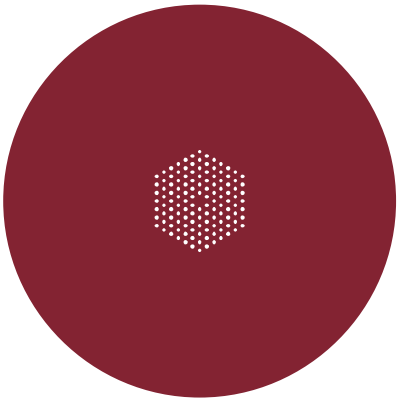
SC-3.7-975

Nonlinear fiber for supercontinuum generation

Single Mode

Highly Nonlinear

- Single mode
- Pure silica
- Dispersion optimized for 1 µm wavelength pumping



This single-mode nonlinear photonic crystal fiber combines a high nonlinear coefficient with zero dispersion around 975 nm to allow efficient nonlinear interactions using 1060 nm range lasers.

The fiber is designed for high power ps pumped supercontinuum generation. Due to the optimized dispersion profile, a length of only 10-15 m of this fiber is sufficient to generate octave spanning spectra when pumped with high power ps sources.

The fiber is available spliced to standard single mode fiber or endlessly single mode fiber, and is also available with hermetically sealed ends and FC/PC connectors.

Applications

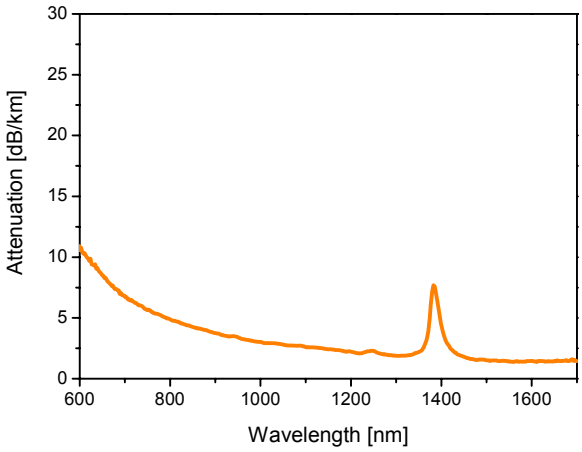
Broadband continuum generation for:

- Spectroscopy
- Microscopy
- Metrology
- Optical coherence tomography, OCT

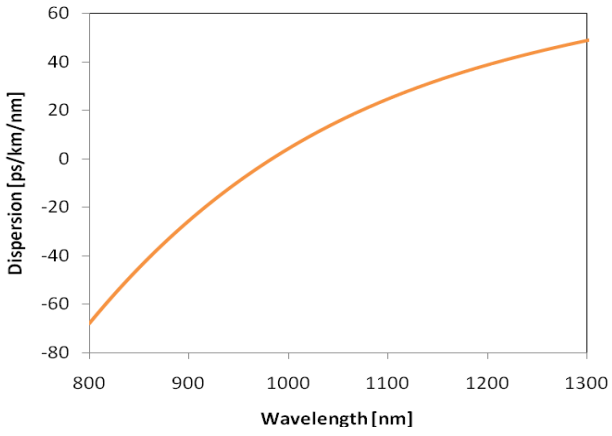
Physical properties	
Material	Pure silica
Cladding diameter	125 ± 10 µm
Coating diameter	245 ± 10 µm
Coating material	HT Acrylate
Core diameter	3.7 ± 0.2 µm

Optical properties	
Zero dispersion wavelength	975± 15 nm
Cut-off wavelength	< 1000 nm
Nonlinear coefficient @ 1060 nm	~18 $(W \cdot km)^{-1}$
Attenuation @ 1060nm	< 5 dB/km
Attenuation @ 1550 nm	< 3 dB/km
Attenuation @ 600 nm	< 15 dB/km
Mode Field Diameter	3.1 ± 0.2 µm
NA @ 1060 nm	0.25 ± 0.05

Typical measured spectral attenuation



Typical measured dispersion



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