

Supercontinuum Photonic Crystal Fibers

IXF-SUP

These fibers offer both low dispersion at the pump wavelength, high numerical aperture and are therefore particularly suited for the efficient generation of supercontinuum with ti-sapphire and YAG pulsed pump sources.

Partnership with  **PHOTONICS**
BRETAGNE
Product line **PERFOS**

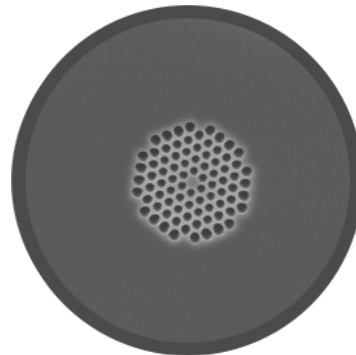
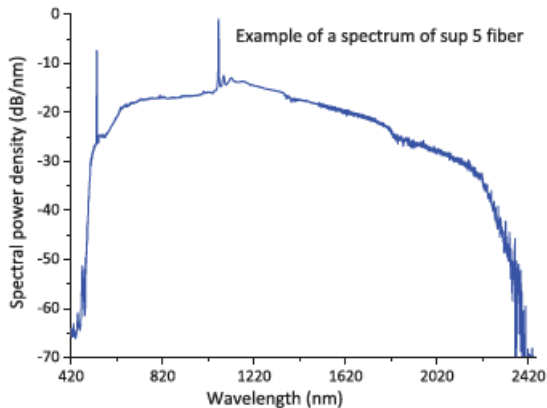


FEATURES & BENEFITS

- Pure silica core, low background losses
- Small effective area, high nonlinear
- Dispersion optimised for pumping near 780 nm & 1060 nm

APPLICATIONS

- Supercontinuum generation
- Frequency comb generation



Typical supercontinuum generated in IXF-SUP-5-125 with 300 mW 1064 nm pulse laser (1.2 ns @ 25 kHz)

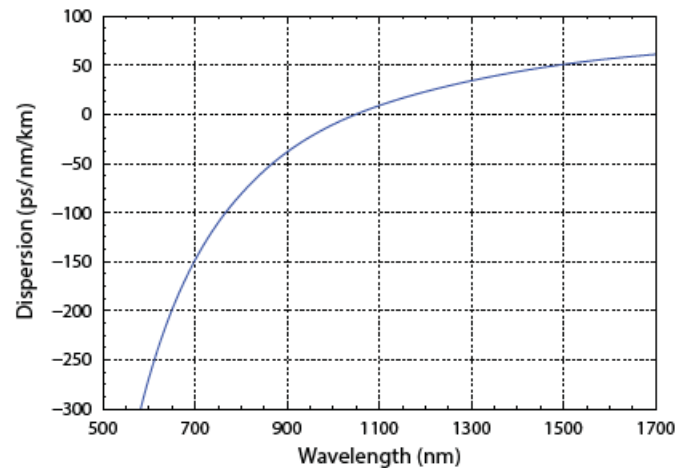
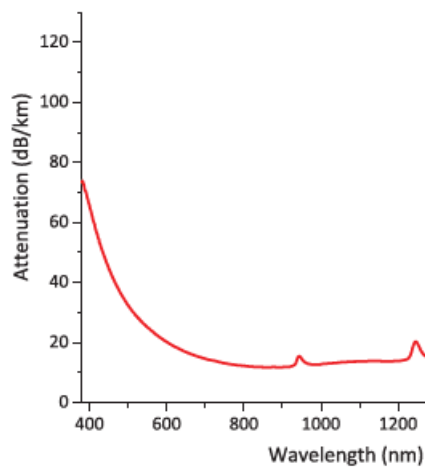
IXF-SUP TECHNICAL SPECIFICATIONS

Parameters

Part Number	IXF-SUP-2-135	IXF-SUP-5-125	IXF-SUP-5-125-PM
Material	silica		
Core diameter (μm)	1.7 ± 0.2	5 ± 0.3	5 ± 0.3
Cladding diameter (μm)	135 ± 5	125 ± 2	125 ± 3
Coating outside diameter (μm)	240 ± 10	245 ± 10	240 ± 10
Coating type	dual coat high index coating acrylate		
Zero dispersion wavelength* (nm)	760 ± 15	1050 ± 5	1050 ± 5
Mode field diameter @ ZDW (μm)	1.6 ± 0.2	4.6 ± 0.3	4.5 ± 0.3
Effective area @ ZDW (μm^2)	1.9 ± 0.2	14 ± 2	16 ± 2
Nonlinear coefficient ($\text{W}\cdot\text{km}^{-1}$)	105 ± 10	10 ± 1	10 ± 1
Numerical aperture	0.4 ± 0.05	0.2 ± 0.02	0.2 ± 0.02
Background loss @ ZDW (dB/km)	< 90	< 20	< 20
Background loss @ 1550 nm	N/A	< 15	< 30
Birefringence ($\times 10^{-4}$)	1 ± 0.5	N/A	2.3 ± 0.5

* Zero dispersion wavelength (ZDW)

Specifications are subject to change without notice



Typical measured attenuation and dispersion in IXF-SUP-5-125