

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

Main characteristics

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

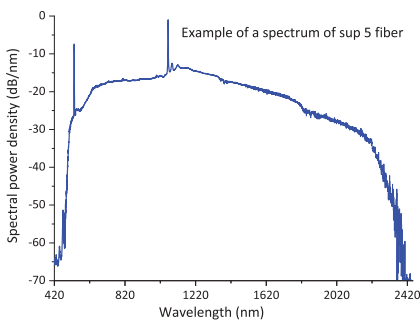
Applications

- Supercontinuum generation
- Frequency comb generation

Fibre specifications

Fibre type	SUP-2-135	SUP-5-125	SUP-5-125-PM
Optical parameters			
Zero dispersion wavelength (ZDW) (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	15.6 +/- 0.2	15.1 +/- 0.2
Nonlinear coefficient (W.km ⁻¹)	105 +/- 10	10 +/- 1	10 +/- 1
Numerical aperture	0.4 +/- 0.05	0.2 +/- 0.05	0.2 +/- 0.05
Background loss @ ZDW (dB/km)	< 90	< 20	< 20
Background loss @ 1550 nm (dB/km)	N/A	< 15	< 30
Birefringence (x 10 ⁻⁴)	1 +/- 0.5	N/A	2.3 +/- 0.5
Physical/Material parameters			
Material	F300 Silica		
Core diameter (μm)	1.7 +/- 0.2	5 +/- 0.2	5.1 +/- 0.3
Cladding diameter (μm)	135 +/- 5	125 +/- 2	124 +/- 2
Coating outside diameter (μm)	240 +/- 10	245 +/- 10	240 +/- 10
Coating type	Dual coat high index coating acrylate		

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



Typical measured attenuation and dispersion

