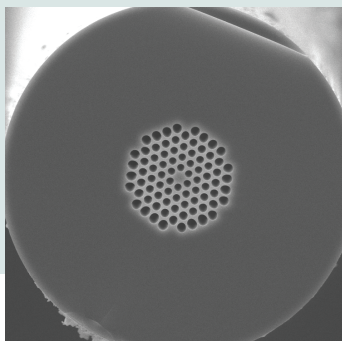




These fibres offer both low dispersion at the pump wavelength and high numerical aperture and are therefore particularly suited for the efficient generation of supercontinuum with ti-sapphire and YAG pulsed pump sources.

### Main characteristics

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

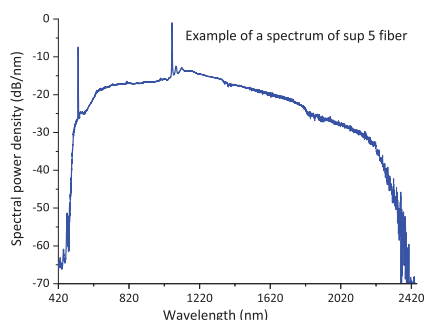
### Applications

- Supercontinuum generation
- Frequency comb generation

### Fibre specifications

| Fibre type                                  | SUP-2-135                             | SUP-5-125    | SUP-5-125-PM |
|---------------------------------------------|---------------------------------------|--------------|--------------|
| <b>Optical parameters</b>                   |                                       |              |              |
| 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 <sup>2</sup> )     | 1.9 +/- 0.2                           | 15.6 +/- 0.2 | 15.1 +/- 0.2 |
| Nonlinear coefficient (W.km <sup>-1</sup> ) | 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 <sup>-4</sup> )         | 1 +/- 0.5                             | N/A          | 2.3 +/- 0.5  |
| <b>Physical/Material parameters</b>         |                                       |              |              |
| 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**

