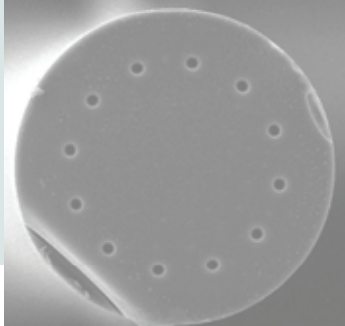




MULTICORE FIBRES 12 CORES



These Ge and Er/Yb doped silica multicore fibres integrates 12 cores regularly arranged on a 135µm circle which make them particularly suited for Bragg grating inscription for sensing application (Shape, Strain, Temperature...) and for multicore fibre amplifiers and their associated passive components for telecom application in the C-band.

Main characteristics

- Passive/photosensitive or Erbium/Ytterbium doped
- Index difference and dopants superior control and uniformity among all 12 cores for both passive and active fibres
- Excellent fibre geometry (core position and spacing) enables optimal splice losses

Applications

- Sensing
- Telecom
- Laser

Fibre specifications

Fibre type	Multicore Passive Fibre MCF12-7-187	Multicore EY Fibre MCF12-7-187-EY
Optical parameters		
Operating Wavelength (nm)	> 1500	
Core Numerical Aperture (NA)	0.20 +/- 0.01	0.18 +/- 0.01
LP ₁₁ cut-off wavelength (nm)	1400	1360
Mode field diameter @ 1550 nm (µm)	6.5 +/- 0.1	6.7 +/- 0.1
Background loss @ 1550 nm (dB/km)	< 1	NA
Core absorption @ 1535 nm (dB/m)	NA	45 +/- 5
Cladding absorption @ 976 nm (dB/m)	NA	1.5
Cladding background loss @ 1310 nm (dB/km)	< 25	
Cross-Talk (dB/10 km)	-60	
Physical/Material parameters		
Core dopant	Germanium	Erbium/Ytterbium
Design type	Step Index	
Number of cores	12	
Core geometry	12 cores regularly arranged on a 135 µm circle	
Core spacing (µm)	35 +/- 0.3	
Core Concentricity Error (µm)	< 0.5	
Core Diameter (µm)	7	
Cladding Diameter (µm)	187 +/- 0.5	
Coating Outside Diameter (µm)	355 +/- 10	
Coating Type	Dual coat low index acrylate	
Cladding NA	0.46	

2D and 3D fibre index profile

