SPECIALTY OPTICAL FIBER

IXF-ESM Series

Endlessly Single Mode Fibers

Those fibers display an endlessly single mode behavior and do not exhibit a high order mode cut off. They are therefore ideally suited for excellent mode delivery in the visible and above.

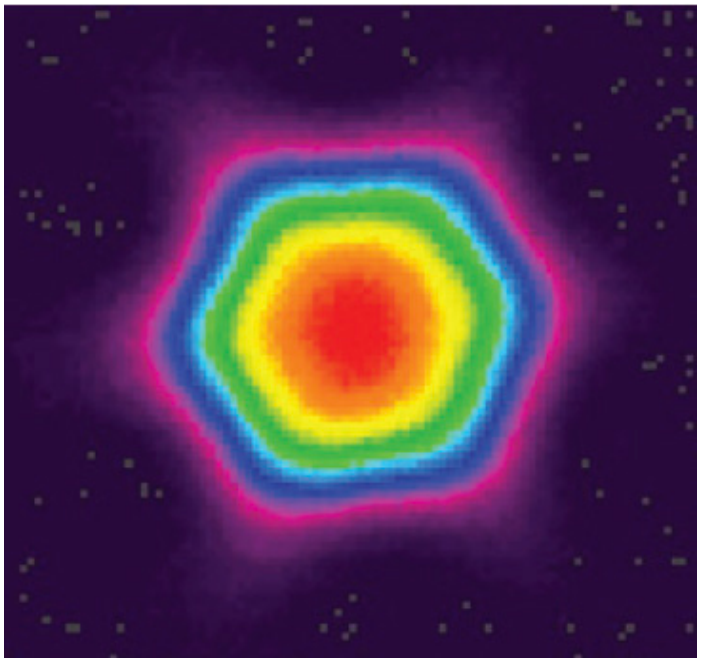
Partnership with PHOTONICS BRETAGNE Product line PERFOS

Benefits & Features

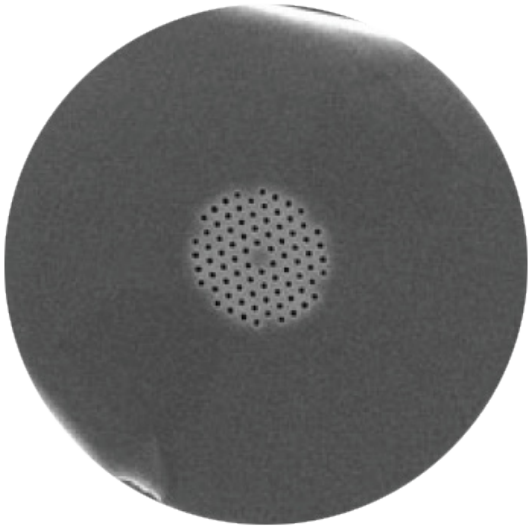
- Singlemode over the whole wavelength range
- Standard and PM versions

Applications

- Singlemode light delivery



Measured fundamental mode shape of the ESM-5-125-PM @ 532 nm



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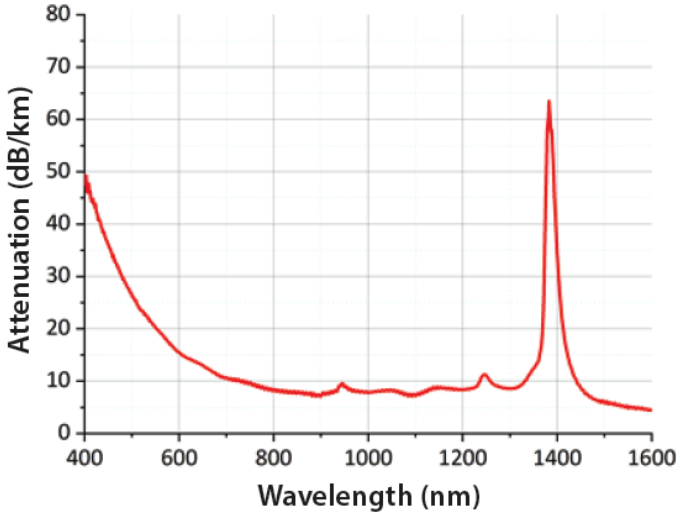
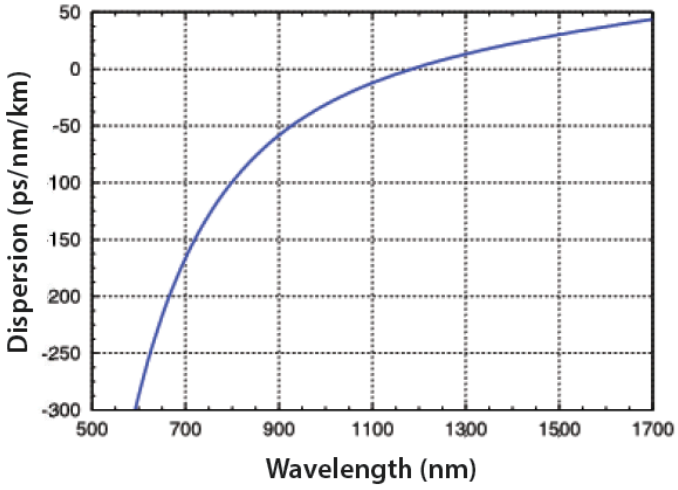
IXF-ESM Series
TECHNICAL SPECIFICATIONS

Parameters

P/N: IXF-ESM	5-125	5-125-PM	10-125	10-225-PM
Material			Silica	
Core diameter (µm)	5 ± 0.3	5 ± 0.3	10 ± 0.6	10 ± 0.6
Cladding diameter (µm)	125 ± 2	125 ± 3	125 ± 5	225 ± 5
Cladding non-circularity (%)	< 2	< 7.5	< 2	< 2
Coating outside diameter (µm)	245 ± 10	240 ± 10	250 ± 10	355± 10
Coating type		Dual coat high index acrylate		
Numerical aperture @ 1064 nm	0.20 ± 0.02	0.20 ± 0.02	0.1 ± 0.02	0.1 ± 0.02
LP_{11} cut-off wavelength (nm)			None	
Background loss @ 532 nm (dB/km)	< 50	< 38	< 40	< 38
Background loss @ 1060 nm (dB/km)	< 20	< 20	< 12	< 15
Background loss @ 1550 nm (dB/km)	< 15	< 30	< 5	< 10
Mode field diameter @ 1064 nm (µm)	4.6 ± 0.3	4.5 ± 0.3	8.8 ± 0.4	8.7 ± 0.4
Effective area @ 1064 nm ($µm^2$)	14 ± 2	16 ± 2	60 ± 6	59 ± 6
Birefringence		$2.3 \pm 0.1 \times 10^{-4}$		$2.0 \pm 0.1 \times 10^{-4}$





Typical measured fibre attenuation and dispersion of IXF-ESM-5-125-PM

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