

## SPECIALTY OPTICAL FIBER

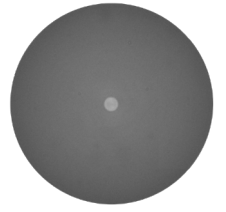
# IXF-SM-1550-125-014-PI

## Single Mode Fiber

The IXF-SM family regroups singlemode fibers designed for operation from UV to NIR wavelengths. Available with different cladding diameter, numerical aperture, and coating material, a wide range of singlemode fibers are available.

The IXF-SM-1550-125-014-PI fiber is designed for use in harsh environments with extreme temperatures and/or low to moderate radiation levels.

Polyimide offers excellent performance both at cryogenic and high temperatures up to +300 °C. Exail's high quality polyimide coating enables large numbers of femtosecond FBG to be inscribed with high yield directly through the coating for sensing applications.



### Benefits & Features

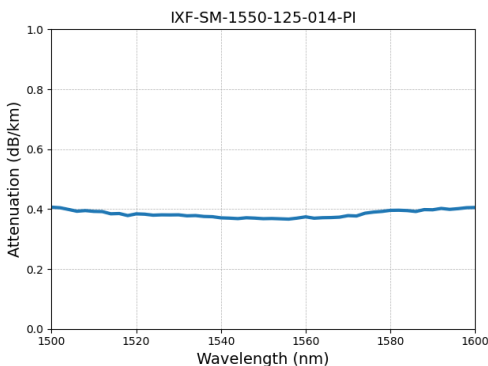
- 1310 & 1550 nm singlemode operation
- Ø125 µm cladding diameter
- Operation from cryogenic temperatures to +300 °C
- Low splice loss to SMF28
- High-quality polyimide coating
- Other diameters and coatings available upon request
- Matching radiation hardened fiber available

### Applications

- Sensing
- FBG inscription
- Distributed Temperature Sensing (DTS)
- Transport fiber

### Related Products

- IXF-RAD-SM-1550-014-PI Rad-Hard fiber
- IXF-SM-1550-125-0.12-PI NA 0.12, Polyimide
- IXF-SM-1550-125-014-HT NA 0.14, HT acrylate



Typical attenuation spectrum of the IXF-SM-1550-125-014-PI fiber.

### Parameters

Cutoff wavelength (nm)	< 1275
Attenuation @1550 nm (dB/km)	< 0.4
Attenuation @1310 nm (dB/km)	< 0.6
Mode field diameter @1550 nm (µm)	8.5 ± 0.5
Mode field diameter @1310 nm (µm)	7.5 ± 0.5
Numerical aperture	0.14 ± 0.01
Core/Clad concentricity (µm)	< 1
Cladding diameter (µm)	125 ± 1
Coating diameter (µm)	155 ± 5
Proof test level (kpsi)	100

### Design parameters

Coating material	Polyimide
Operating temperature range (°C)	-60 to +300
Short term bend radius (mm)	> 10
Long term bend radius (mm)	> 20

Typical Radiation Induced Attenuation @1550 nm for 20 kGy (γ ray): 25 dB/km

Exail reserves the right to change, at any time and without notice, the specifications, design, function or form of its products described herein.

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