

## SPECIALTY OPTICAL FIBER

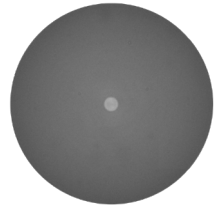
# IXF-SM-1550-125-019-AL

## Single Mode Fiber

The IXF-SM family includes singlemode fibers designed for use in harsh environments with extreme temperatures and/or low to moderate radiation levels. Exail offers a wide range of polymer and metallic coatings well-suited for high-temperature applications.

Aluminum coated fibers offer a wide operating temperature range, from cryogenic temperatures up to +400 °C. They are also hermetic to hydrogen, mitigating hydrogen darkening in hydrogen-rich environments.

The IXF-SM-1550-125-019-AL fiber is radiation tolerant and can be used under low to moderate radiation levels.



### Benefits & Features

- Singlemode operation at 1310 and 1550 nm
- Aluminum coating
- Operating temperature up to +400 °C
- Low bending loss
- Radiation tolerant for low to moderate radiation levels
- Hermetic to hydrogen and water vapor
- Solderable directly to connectors

### Applications

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

### Related Products

- |                          |                     |
|--------------------------|---------------------|
| • IXF-SM-1550-125-014-AL | NA 0.14             |
| • IXF-RAD-SM-1550-014-AL | Rad-Hard fiber      |
| • IXF-SM-1550-125-014-PI | Polyimide coating   |
| • IXF-SM-1550-125-014-HT | HT acrylate coating |

### Parameters

Cutoff wavelength (nm)	≤ 1260
Attenuation @1310 nm (dB/km)	≤ 15
Attenuation @1550 nm (dB/km)	≤ 15
Mode field diameter @1310 nm (μm)	5.6 ± 0.5
Mode field diameter @1550 nm (μm)	6.5 ± 0.5
Numerical aperture	0.19 ± 0.01
Core/Clad concentricity (μm)	≤ 1
Cladding diameter (μm)	125 ± 2
Coating diameter (μm)	170 ± 10
Proof test level (kpsi)	100
Bending loss (dB) 5 mm radius, 10 turns, 1625 nm	≤ 0.05

### Design parameters

Operating wavelength (nm)	1260 - 1650
Coating material	Aluminum
Operating temperature range (°C)	-269 to +400
Short term bend radius (mm)	15
Long term bend radius (mm)	30



[More information about the 3F2E project](#)

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