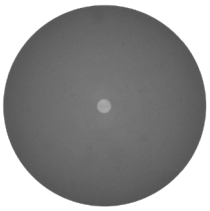
SPECIALTY OPTICAL FIBER

IXF-SM-1550-125-014-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-1550-125-014-AL fiber is radiation tolerant and can be used under low to moderate radiation levels, a matching radiation hardened fiber is available for high radiation levels.

Benefits & Features

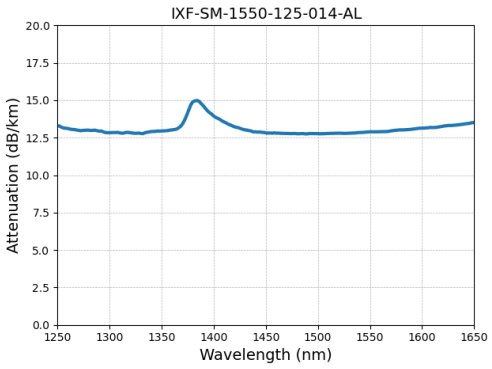
- Singlemode operation at 1310 and 1550 nm
- Aluminum coating
- Operating temperature up to +400 °C
- Radiation tolerant for low to moderate radiation levels
- Matching radiation hardened fiber available
- Hermetic to hydrogen and water vapor
- Solderable directly to connectors
- Low splice loss to SMF28

Applications

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

Related Products

• IXF-RAD-SM-1550-014-AL	Rad-Hard fiber
• IXF-SM-1550-125-019-AL	NA 0.19
• IXF-SM-1550-125-014-PI	Polyimide coating
• IXF-SM-1550-125-014-HT	HT acrylate coating



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

Parameters

Cutoff wavelength (nm)	1150 ≤ λc ≤ 1275
Attenuation @1310 nm (dB/km)	≤ 20
Attenuation @1550 nm (dB/km)	≤ 20
Mode field diameter @1310 nm (µm)	7.8 ± 0.5
Mode field diameter @1550 nm (µm)	9 ± 0.5
Numerical aperture	0.14 ± 0.01
Core/Clad concentricity (µm)	≤ 1
Cladding diameter (µm)	125 ± 2
Coating diameter (µm)	170 ± 10
Proof test level (kpsi)	100

Design parameters

Operating wavelength (nm)	1300 - 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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