

## SPECIALTY OPTICAL FIBER

# IXF-PHO-CMS

## Photosensitive Single-Mode Fiber

The IXF-PHO family of photosensitive fibers are designed to offer excellent performance for FBG inscription. These fibers feature extremely low residual birefringence and repeatable photosensitivity, making them an ideal choice for high reflectivity chirped FBG with bandwidth greater than 2 nm or for dispersion compensation gratings.

Cladding Mode Shifted (CMS) fibers have a highly Ge-doped core offering high photosensitivity without hydrogen loading and are designed to adapt the cladding mode offset to optimize the channel spacing.



### Benefits & Features

- Cladding modes shifted by up to 9 nm
- Very high photosensitivity without hydrogen loading
- Low attenuation compared to Boron-doped fibers
- High NA (HNA) of 0.37

### Applications

- FBG inscription
- Chirped FBGs
- Dispersion compensation

### Related Products

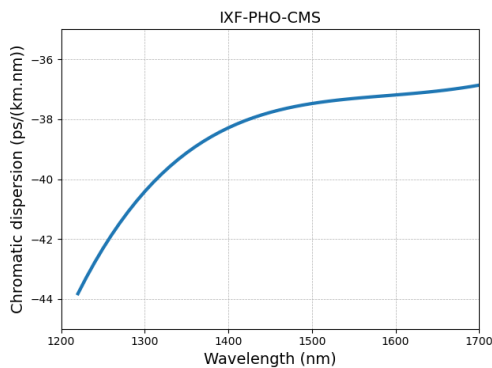
- IXF-PHO-CMSP Cladding mode shifted up to 4 nm

### Parameters

Cutoff wavelength (nm)	≤ 1450
Attenuation @1550 nm (dB/km)	≤ 10
Core diameter (μm)	2.8 ± 1
Mode field diameter @1550 nm (μm)	4 ± 1
Cladding diameter (μm)	125 ± 2
Numerical aperture	0.37 ± 0.02
Core non circularity (%)	≤ 5
Core/Clad concentricity (μm)	≤ 1
Coating diameter (μm)	245 ± 15
Proof test level (kpsi)	100

### Design parameters

Coating material	Dual acrylate
Operating temperature range (°C)	-60 to +85
Splice loss to SMF (dB)	≤ 0.25
Cladding modes offset (nm) FBG > 30dB	up to 9
Static fatigue corrosion	n ≥ 20
Tensile strength (GPa)	≥ 3.5



Typical dispersion profile of the IXF-PHO-CMS fiber

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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