

SPECIALTY OPTICAL FIBER

IXF-CORELESS Series

Coreless Fibers

Exail offers coreless fibers made of high-purity silica. Coreless fibers are pure silica glass rods with an acrylate coating for example used to terminate fiber end faces, either to reduce the power density, reduce back reflections, or manufacture micro-optics. In the case of micro-structured photonic crystal fibers, coreless fibers are used to seal and protect the microstructure.

Exail's coreless fibers use high purity silica optimized for transmission in the NIR, silica optimized for transmission in the UV or visible is available upon request.



Benefits & Features

- Excellent diameter accuracy
- Wide range of diameter, other diameters upon request
- Other coatings such as low-index acrylate are available upon request

Applications

- Beam expansion to reduce the power density
- Seal and protect photonic crystal fibers
- Micro-optics
- Reduce back-reflection



Coreless fiber

exail

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TECHNICAL SPECIFICATIONS

Parameters

P/N: IXF-CORELESS-	80	125	200	225	250	300
Silica refractive index @ 1550 nm				1.4440		
Silica refractive index @ 1060 nm				1.4497		
Silica refractive index @ 633 nm				1.4570		
Cladding diameter (μm)	80 \pm 1	125 \pm 1	200 \pm 2	225 \pm 2	250 \pm 2	300 \pm 2
Coating diameter (μm)	170 \pm 15	245 \pm 15	350 \pm 15	355 \pm 15	360 \pm 15	375 \pm 15

Design Parameters

Coating material	Acrylate					
Operating temperature range ($^{\circ}\text{C}$)	-60 / +85					
Proof test level (kpsi)	100	100	50	50	50	50

