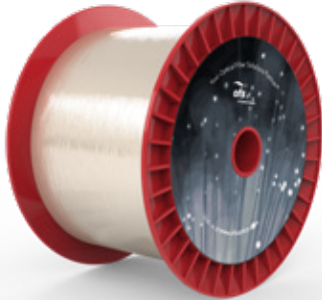


Aluminum-Doped Highly Non-Linear Optical Fiber

P/N: HNLF Al-Doped



Overview

OFS Highly-Non-Linear Optical Fiber (HNLF) combines a high non-linear coefficient with a small dispersion slope. The fiber design includes a high delta core, doped with GeO₂, surrounded by a deeply depressed ring doped with fluorine.

HNLF is available in five versions: HNLF Standard with a dispersion slope of 0.019 ps/(nm²·km), HNLF Zero-slope with a dispersion slope of 0.006 ps/(nm²·km), HNLF-PM which is polarization maintaining, HNLF Al-Doped with an aluminum doped core for increased SBS threshold, and HNLF-SPINE (Stable Phase-matching for Improved Nonlinear Efficiency) with a zero dispersion wavelength that is very stable along the fiber length. All are available with wide range dispersion values.

Typical Applications

- Non-Linear Loop Mirror
- Optical Regeneration
- Optical Sampling
- Parametric Amplification
- Photosensitive Fiber for Writing of UV-Gratings
- Pulse Compression
- Supercontinuum Generation
- Wavelength Conversion



A Furukawa Company

Aluminum-Doped Highly Non-Linear Optical Fiber

P/N: HNLF AI-Doped

Product Specifications	
Product Description	AI-Doped Highly-Non-Linear Optical Fiber
Optical Characteristics	
Type	Non-Standard
Fiber Length	50 to 500 m
Fiber Length Tolerance	± 3 m
Cutoff Wavelength	< 1500 nm
Effective Area (Typical)	15.2 μm ²
Dispersion	-2.0 to +2.0 ps/(nm·km)
Dispersion Slope (Typical)	0.024 ps/(nm ² ·km)
PMD	≤ 0.70 ps/√km
Attenuation	≤ 7.0 dB/km
Attenuation (Typical)	6.2 dB/km
Splice Loss to SSMF Pigtail	≤ 0.65 dB
Splice Loss to SSMF Pigtail (Typical)	0.5 dB
SBS Threshold x Effective Length (Typical)	86 W·m
Non-Linear Coefficient (Typical)	6.9 W ⁻¹ ·km ⁻¹

Ordering Information for HNLF AI-Doped Module	
Short (1-2 meter) Standard Single-Mode (SSMF) pigtails with connectors are spliced to the HNLF. The fiber with pigtails is delivered on a 29 x 175 mm spool covered with a protective layer of silicone glue.	
Ordering Code: HNLF-AL-LLLL-P-M-DD	
Length Code (LLLL)	Length in step of 50 meters (0050, 0100, 0150, .. 2000)
Pigtail Option (P)	Pigtail Type 1 = SSMF with FC/APC Connectors 2 = SSMF with FC/PC Connectors
Mechanical Option (M)	Mechanical Package 1 = 29x175 mm spool with silicone glue 2 = 29x175 mm spool without silicone glue
Dispersion Code (DD)	Dispersion at 1550 nm (ps/nm·km) m1 = -1.0 ± 1.0 z0 = 0.0 ± 1.0 p1 = 1.0 ± 1.0

Ordering Information for HNLF AI-Doped Fiber	
The HNLF can also be delivered on a spool without pigtails and silicone. Please note that a splice loss of about 1 dB from HNLF to SSMF must be expected when using standard fusion splicers.	
Item Number	Dispersion at 1550 nm (ps/nm·km)
80415m1	-1.0 ± 1.0
80415z0	0.0 ± 1.0
80415p1	1.0 ± 1.0

For additional information please contact your sales representative.

You can also visit our website at www.ofsoptics.com or call 1-888-fiberhelp (1-888-342-3743) USA or 1-770-798-5555 outside the USA.



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