

Fluoride single mode ZBLAN fiber patch cord 0.3-3.9 μ m (core diameter 6.5 μ m FC/APC 2m long)



● Product Description

ZFG fiber is a composite glass fiber composed of heavy metal fluoride. Compared with the widely used quartz fiber, ZFG fiber has the characteristics of wide transmission wavelength range of 0.3 μ m~4.5 μ m and high emission efficiency of doped rare earth ions. In the application field of fiber lasers and amplifiers, in order to optimize their efficiency, through a unique fiber manufacturing technology, we have launched a low-cost production of high-quality (especially low-loss) fluoride fiber single-mode fiber with a specific D-type core. Customized fiber lasers and amplifiers can be designed and manufactured. Mid-IR supercontinuum LWF nonlinear single-mode fiber can achieve very flat and broadband output spectrum due to its excellent performance. (Mid-infrared supercontinuum laser) Mid-infrared spectroscopy and optical measurement. We provide a full range of ZFG fiber products to meet the needs of demanding fiber lasers, and can customize the cut-off wavelength, core diameter, cladding diameter, etc. We provide you with a full range of infrared external line solutions.

● Part Number

ZFG SM (1.95) 6.5/125-FC/APC-2

● Product features

Specific D-core design 、 Extremely flat and broadband output spectrum 、
Mid-infrared supercontinuum spectrum、 Nonlinear single-mode fiber、 Low
loss、 High power handling capability

● Application area

Fiber amplifiers 、 Mid-infrared supercontinuum lasers 、 Medical fields
、 Optical measurement and installation、 Biochemical sensing

Since the discovery of ZBLAN glass in 1974, a variety of fluoride optical fibers have been developed, including ZrF₄, InF₃, and AlF₃ based fibers, designed for mid-IR applications.

Typical compositions of ZFG and IFG glasses are:

ZFG (Zirconium ZrF₄ Fluoride Glass) = fluorozirconate fibers

53 ZrF₄ -20 BaF₂ -4 LaF₃ -3 AlF₃ -20 NaF

IFG (InF₃ Fluoride Glass) = fluoroindate fibers

40 InF₃ -20 ZnF₂ -20 SrF₂ -20 BaF₂

They have the specificity of high transparency from UV to mid-IR: 0.22 to 7 μ m and 0.255 to 8 μ m for ZFG and IFG (3 mm thick sample), respectively.

Thus, they completely cover the 3-5 μ m atmospheric transparency window and partially cover the molecular fingerprinting region, paving the way for numerous passive and active applications.

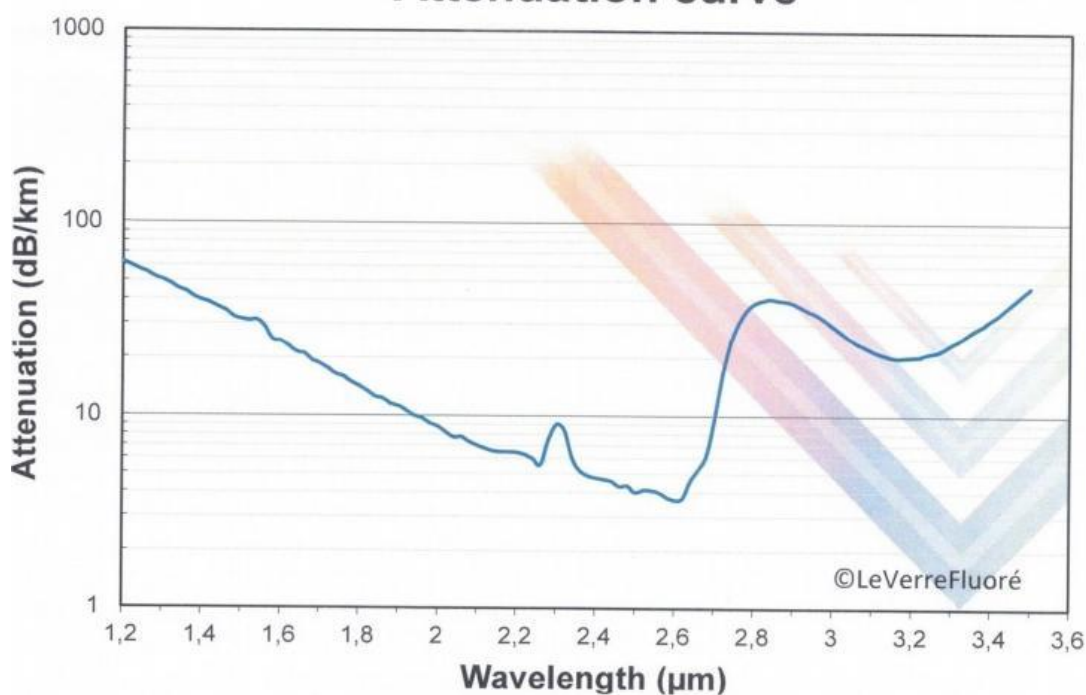
Part Number parameters

Test Report

231206/OF4116-x

Câble reference	ZFG SM [2,55] TJK 2FC/APC 8,5/125 - 1,5	
Part number	231206/OF4116-x	
Core diameter	8.5 µm	
1st Cladding diameter (*)	125 µm	
2nd Cladding diameter	N/A µm	
Doping concentration (mol)	N/A	
Numerical aperture	0,23	
Cut-Off wavelength	2.55 µm	
Cable length	1.5 m	
Jacket	Kevlar Jacket	OD : 4 mm
Connectors	2 FC/APC	
Long term Bending radius	≥ 45 mm	

Attenuation curve



General parameters

Parameter characteristics

Transmission range (μm)	0.3-4.5
Typical loss (dB/Km)	< 10
Fresnel reflection loss (air)	4%
Coating material	UV Curable Acrylate

Technical parameters:

PN#	ZFG-SM-(1.95)6.5/12 5	ZFG-SM-(2.55)8.5/12 5	ZFG-SM-(2.2)7.5/150	ZFG-SM-(2.2)14/250
Core/cladding diameter (um)	6.5/125	8.5/125	7.5/150	14/250
Numerical aperture	0.23	0.23	0.23	0.125
Cut-off wavelength (um)	1.95	2.55	2.2	2.2
Operating wavelength (um)	0.3~3.90	0.3~4.50	0.3-4.0	0.3~4.1

Short-term				
bending	≥ 15	≥ 15	≥ 15	≥ 25
radius (mm)				
Long-term				
bending	≥ 45	≥ 45	≥ 45	≥ 75
radius (mm)				

Ordering Info

Example: ZFG SM (1.95) 6.5/125

Cut-off wavelength (μm): 1.95/2.55/2.2

Numerical aperture: 0.23/0.23/0.125

Core/cladding diameter (μm): 6.5/125; 8.5/1235; 14/250

Insertion loss test curve

