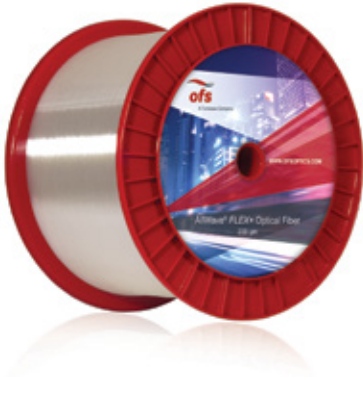


AllWave® FLEX+ 200 µm Optical Fiber

Reliable Bend-Optimized Performance for Smaller Diameter, Higher Density Cable Applications



Features and Benefits

- Bend optimized design for tight, low loss bends without risking fiber strength and long-term reliability
- 36% less area than conventional 250 µm coated fiber enabling smaller diameter cables and a greater number of fibers per tube
- Ideally suited for high fiber count cables and microcables where cable diameter needs to be minimized
- Zero Water Peak fiber provides a 50 percent increase in usable optical spectrum, enabling 16-channel CWDM and DWDM support
- Proof-tested to 100 kpsi to improve long term reliability and simplify cabling
- Ultra-low Polarization Mode Dispersion (PMD) enables speed and distance upgrades

Applications

AllWave FLEX+ 200 µm Optical Fiber provides outstanding bend performance and design freedom for fiber management systems in:

- FTTx
- High count fiber cables
- High power applications
- Microcables
- Closures
- At the customer premises
- Any application with transmission speeds of 40 Gb/s and beyond

Overview

OFS offers AllWave FLEX+ Bend-Optimized Single-Mode Optical Fiber with a 200 µm coating diameter for use in cables with higher fiber counts per tube and in microcables where cable diameters must be minimized. The fibers offer all the other performance advantages and 30-year reliability of standard AllWave FLEX+ products.

Product Description

AllWave FLEX+ 200 µm Optical Fiber offers enhanced bend performance ideally suited for in-building and connectivity applications and full compatibility and compliance with the installed base of conventional G.652.D single-mode fibers. It is an excellent choice for higher density cables for Access networks, high-density Fiber-to-the-Home (FTTH) applications, cell sites, enterprise networks, or any application where high fiber count lower diameter cable may be encountered. It meets and exceeds both ITU-T G.657.A2 and G.652.D specifications.

Outstanding Macrobend Performance

- **10 turns on a 15 mm radius mandrel**
< 0.03 dB @ 1550 nm
< 0.1 dB @ 1625 nm
- **1 turn on a 10 mm radius mandrel**
< 0.1 dB @ 1550 nm
< 0.2 dB @ 1625 nm
- **1 turn on a 7.5 mm radius mandrel**
< 0.5 dB @ 1550 nm
< 1.0 dB @ 1625 nm

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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Product Specifications		AllWave FLEX+ 200 μm Optical Fiber	
Physical Characteristics			
Clad Diameter	125.0 ± 0.7 μm		
Clad Non-Circularity	≤ 1 %		
Core/Clad Concentricity Error (Offset)	≤ 0.5 μm, < 0.2 μm typically		
Coating Diameter (Uncolored)	190 ± 10 μm		
(Colored)	200 ± 10 μm		
Coating-Clad Concentricity Error (Offset)	≤ 12 μm		
Tensile Proof Test (Other proof test levels available on request)	100 kpsi (0.69 GPa)		
Coating Strip Force	Range: ≥ 0.5 N < 8.9 N		
Standard Reel Lengths	50.4 km		
Optical Characteristics			
Attenuation	Maximum	Typical	
at 1310 nm	≤ 0.35 dB/km	≤ 0.34 dB/km	
at 1385 nm	≤ 0.31 dB/km	≤ 0.28 dB/km	
at 1490 nm	≤ 0.24 dB/km	≤ 0.21 dB/km	
at 1550 nm	≤ 0.21 dB/km	≤ 0.19 dB/km	
at 1625 nm	≤ 0.24 dB/km	≤ 0.20 dB/km	
Attenuation vs. Wavelength Range (nm)	Reference (nm) λ	α	
1285 – 1330	1310	0.03	
1360 – 1480	1385	0.04	
1525 – 1575	1550	0.02	
1460 – 1625	1550	0.04	
*The attenuation in a given wavelength range does not exceed the attenuation of the reference wavelength (λ) by more than the value α.			
Attenuation Uniformity / Point Discontinuities at 1310 nm and 1550 nm	≤ 0.05 dB		
Chromatic Dispersion			
Zero Dispersion Wavelength (λ ₀)	1302 – 1322 nm		
Zero Dispersion Slope (S ₀)	≤ 0.092 ps/nm ² -km		
Typical Dispersion Slope	0.088 ps/nm ² -km		
Group Refractive Index			
at 1310 nm	1.467		
at 1550 nm	1.468		
Mode Field Diameter			
at 1310 nm	8.6 ± 0.4 μm		
at 1550 nm	10.4 ± 0.5 μm (typical)		
Cut-off Wavelength (λ _{cc})	≤ 1260 nm		
Polarization Mode Dispersion (PMD) ¹			
Fiber PMD Link Design Value (LDV) ²	≤ 0.06 ps/√km		
Maximum Individual Fiber	≤ 0.1 ps/√km		
Typical Fiber LMC PMD	≤ 0.02 ps/√km		
¹ As measured with low mode coupling (LMC) technique in fiber form, value may change when cabled. Check with your cable manufacturer for specific PMD limits in cable form. ² The PMD Link Design Value complies with IEC 60794-3, September 2001 (N = 20, Q = 0.01%). Details are described in IEC 61282-3 TR Ed 2, October 2006.			
Environmental Characteristics (at 1310, 1550 & 1625 nm)			
Temperature Cycling (-60° + 85 °C)	≤ 0.05 dB/km		
High Temperature Aging (85 ± 2 °C)	≤ 0.05 dB/km		
Temperature & Humidity Cycling (at -10 °C to +85 °C and 95% RH)	≤ 0.05 dB/km		
Water Immersion (23 ± 2 °C)	≤ 0.05 dB/km		