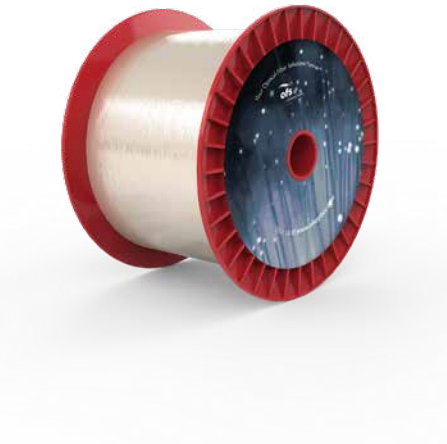
AllWave® A2 9.2 250 µm Optical Fiber - Zero Water Peak

Optimized Bend Performance and Reliable Low Loss Transmission
for In-Building, Central Office and Data Centers



Features and Benefits

- Zero Water Peak fiber with 40% increase in usable spectrum enables 18-channel CWDM support and much greater DWDM capacity
- Coiled into a 7.5 mm radius loop, fiber incurs losses of < 0.5 dB @ 1550 nm and < 1.0 dB @ 1625 nm
- Tight geometric control for very low splice loss and improved connector performance
- Ultra-low PMD for speed and distance upgrades
- High-purity synthetic silica for long-term attenuation stability and mechanical reliability
- The 9.2 µm mode field diameter allows for seamless upgrades to existing networks, allowing for one way OTDR testing

Overview

AllWave A2 9.2 250 µm Zero Water Peak (ZWP) Single-Mode Optical Fiber combines the low loss and bend performance that AllWave *FLEX+* is known for with the added benefit of have a 9.2 µm mode field diameter, all without risking fiber strength and reliability.

Product Description

While AllWave A2 9.2 ZWP Optical Fiber retains all the performance benefits of AllWave ZWP Fiber, it also provides very low bending loss across the full 1260 nm - 1625 wavelength range. This fiber's macrobending and microbending loss improvements combine with its strength and reliability to help (1) allow more compact, intricate cabinet and enclosure designs; (2) protect against excessive loss from inadvertent fiber bends; and (3) reduce potential damage from cable flexing, pulling and crushing.

AllWave A2 9.2 Optical Fiber has the added benefit of a larger mode field diameter (MFD) than our standard AllWave *FLEX+* fiber. This 9.2 µm MFD allows seemless integration of bend insensitive fiber into exisiting networks which use a 9.2 µm MFD fiber.

Applications

AllWave A2 9.2 Optical Fiber provides outstanding bend performance and design freedom for fiber management systems in:

FTTX – Multi-dwelling Units (MDUs)

FTTX – In building applications

FTTX – Drop cables

The central office

High power applications

Closures

At the customer premises

Any application with transmission speeds of 40 Gb/s and beyond

For additional information please contact your sales representative.

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

Product Specifications		
Physical Characteristics		
Clad Diameter	125.0 ± 0.7 µm	
Clad Non-Circularity	≤ 0.7 %	
Core/Clad Concentricity Error (Offset)	≤ 0.5 µm, < 0.2 µm typically	
Coating Diameter (Uncolored)	237 - 247 µm	
Coating-Clad Concentricity Error (Offset)	≤ 12 µm	
Tensile Proof Test	100 kpsi (0.69 GPa)	
Coating Strip Force	Range: 1.0 N ≤ CSF ≤ 8.9 N	
Standard Reel Lengths	50.4 km (31.3 miles)	
Optical Characteristics		
Attenuation	Maximum	
at 1310 nm	≤ 0.32 dB/km	
at 1385 nm	≤ 0.31 dB/km	
at 1490 nm	≤ 0.21 dB/km	
at 1550 nm	≤ 0.18 dB/km	
at 1625 nm	≤ 0.20 dB/km	
Attenuation vs. Wavelength[1]		
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
[1] 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	
Macrobending Attenuation:		
The maximum attenuation with bending does not exceed the specified values under the following deployment conditions:		
Deployment Condition	Wavelength	Induced Attenuation
1 turn on a 7.5 mm radius mandrel	1550 nm	≤ 0.5 dB
	1625 nm	≤ 1.0 dB
1 turn on a 10 mm radius mandrel	1550 nm	≤ 0.1 dB
	1625 nm	≤ 0.2 dB
10 turns on a 15 mm radius mandrel	1550 nm	≤ 0.03 dB
	1625 nm	≤ 0.1 dB
Chromatic Dispersion		
Zero Dispersion Wavelength (λ_0)	1302 - 1322 nm	
Zero Dispersion Slope (S_0)	≤ 0.090 ps/nm²-km	
Typical Dispersion Slope	0.087 ps/nm²-km	
Cut-off Wavelength (λ_{cc})	≤ 1260 nm	
Group Refractive Index		
at 1310 nm	1.467	
at 1550 nm	1.468	
Mode Field Diameter		
at 1310 nm	9.2 ± 0.4 µm	
at 1550 nm	9.9 - 10.9 µm (typical)	
Polarization Mode Dispersion (PMD)[3]		
Fiber PMD Link Design Value (LDV)[4]	< 0.04 ps/$\sqrt{km}$	
Maximum Individual Fiber	< 0.1 ps/$\sqrt{km}$	
Typical Fiber LMC PMD	< 0.02 ps/$\sqrt{km}$	
[2] 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.		
[3] 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	
Dynamic Fatigue Stress Corrosion Parameter	(n_d) ≥ 20	

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