



A Furukawa Company

Your Optical Fiber Solutions Partner®

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Item # AllWave® Zero Water Peak (ZWP) Single-Mode Optical Fibers

The industry's first zero water peak single-mode fiber for reliable full-spectrum performance.

Overview

AllWave® Zero Water Peak (ZWP) Single-Mode Optical Fiber is a full-spectrum fiber designed for optical transmission systems operating over the entire wavelength range from 1260 nm to 1625 nm. Developed by OFS, the fiber is made with a patented manufacturing process that permanently removes the water peak defect to ensure low and stable loss performance in the 1400 nm band and over the lifetime [+ more](#)



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Specifications

Single-Mode or Multimode Single-Mode

Performance Characteristic G.652.D

Campus backbones
FTTX
Local access

Applications	Long haul Metro access Metro edge Mobile backhaul
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Bend Performance	Full Spectrum
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Physical Characteristics

Clad Diameter	125.0 + 0.7 μ m
Clad Non-Circularity	\leq 0.7 %
Core/Clad Concentricity Error (Offset)	\leq 0.5 μ m, < 0.2 μ m typically
Coating Diameter (Uncolored)	235 - 245 μ m
Coating-Clad Concentricity Error (Offset)	\leq 12 μ m
Tensile Proof Test	100 kpsi 0.69 GPa
Coating Strip Force	Range: 1.0 N \leq CSF \leq 8.9 N
Standard Reel Lengths	50.4 km (31.3 miles)

Optical Characteristics

	Attenuation	Maximum	Typical
Attenuation	at 1310 nm	\leq 0.34 dB/km	\leq 0.33 dB/km
	at 1385 nm	\leq 0.31 dB/km	\leq 0.27 dB/km
	at 1490 nm	\leq 0.24 dB/km	\leq 0.21 dB/km
	at 1550 nm	\leq 0.21 dB/km	\leq 0.19 dB/km

at 1625 nm	≤ 0.24 dB/km	≤ 0.20 dB/km
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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 and 1550 nm

< 0.05 dB

The maximum attenuation with bending does not exceed the specified values under the following deployment conditions:

Deployment Condition	Wavelength	Induced Attenuation
Macrobend Attenuation	1 turn, 32 mm (1.2 inch) diameter	1550 nm < 0.05 dB
	100 turns, 50 mm (2 inch) diameter	1310 nm < 0.05 dB
		1550 nm < 0.05 dB
	100 turns, 60 mm (2.4 inch) diameter	1550 nm < 0.05 dB
1625 nm < 0.05 dB		

Zero Chromatic Dispersion Wavelength (λ_0)	1302 – 1322 nm
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Zero Chromatic Dispersion Slope (S₀)	≤ 0.090 ps/(nm ² ·km)
Typical Dispersion Slope	0.087 ps/(nm ² ·km)
Group Refractive Index at 1310 nm	1.467
Group Refractive Index at 1550 nm	1.468
Mode Field Diameter at 1310 nm	9.2 ± 0.4 μm
Mode Field Diameter at 1550	10.4 ± 0.5 μm
Cable Cutoff Wavelength (λ_{CC})	≤ 1260 nm
Fiber Polarization Mode Dispersion (PMD) Link Design Value (LDV)	< 0.06 ps/√km
Maximum Individual Fiber - Polarization Mode Dispersion (PMD)	< 0.1 ps/√km
Typical Fiber LMC Polarization Mode Dispersion (PMD)	< 0.02 ps/√km

Environmental Characteristics (At 1310, 1550 & 1625 nm)

Temperature Cycling (-60 to +85 °C) ≤ 0.05 dB/km

High Temperature Aging (85 + 2 °C) ≤ 0.05 dB/km

Temperature & Humidity Cycling (At -10 to +85 to ~ 98% RH) ≤ 0.05 dB/km

Water Immersion (23 + 2 °C) ≤ 0.05 dB/km

Ordering Information

Order From Location

1 Brightwave Blvd. Carrollton, GA 30117, USA
1-770-798-5555 from outside the USA
1-888-fiberhelp (1-888-342-3743) from inside the USA
CARROLLTON LOCATION