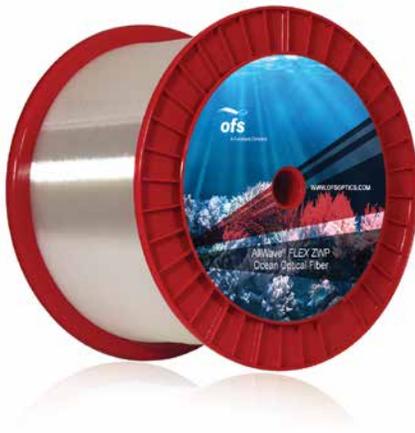




A Furukawa Company

AllWave® FLEX ZWP Ocean Optical Fiber

Optimized Bend Performance for Ocean Applications



Features and Benefits

- Improved bend performance up to 1625 nm: added loss <0.5 dB (1625 nm) and <0.2 dB (1550 nm) at 10 mm radius
- Bend-optimized design without risking fiber strength and long-term reliability
- Tight geometry for very low splice loss
- Fully compatible with single-mode fiber international standard G.654C
- Patented manufacturing technology that permanently removes the water peak defect for low optical loss across the entire spectrum from 1260 to 1625 nm

Overview

AllWave® FLEX Single-Mode Ocean Fiber is the first Zero Water Peak (ZWP) fiber to offer outstanding bend performance for ocean applications. It is an excellent choice for ocean riser applications or for cable designs that require a highly bend-resistant fiber. AllWave FLEX Ocean Fiber meets the requirements of G.654C.

Product Description

AllWave FLEX ZWP Ocean Fiber maintains very low bending loss while ensuring long-term fiber strength and reliability. It can be coiled into a 20 mm diameter loop with a <0.5 dB incurred loss at 1625 nm and <0.2 dB incurred loss at 1550 nm - five times better bending performance than conventional single-mode and leading low water peak (LWP) fibers.

The fiber enables more compact designs and protects the network against excessive loss resulting from inadvertent fiber bends. It is less susceptible to physical disturbances from cable flexing, pulling, and crushing. The optimized bend characteristics of AllWave FLEX ZWP Ocean Fiber improve cable performance in demanding high-stress and low-temperature environments by providing double the microbend protection of conventional single-mode fiber.

Engineered Fiber Sets

OFS has the capability to color and splice ocean fibers to meet stringent cable requirements. Fibers are selected to meet customer specifications for numbers of fibers, colors, lengths, and transmission properties. They are then assembled into sets. Final measurements guarantee customer specified performance for all fibers in the set.

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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AllWave® FLEX ZWP Ocean Optical Fiber

Product Specifications

Transmission Characteristics

Attenuation @ 1550 nm (typical)	0.189 dB/km
Attenuation @ 1550 nm	≤ 0.20 dB/km
Dispersion Slope @ 1550 nm (typical)	≤ 0.060 ps/(nm ² · km)
Dispersion @ 1550 nm (typical)	16.9 ps/nm-km
Mode Field Diameter @ 1550[†]	10.0 ± 0.5 μm
Effective Area (typical)	76 μm ²
Cable Cutoff Wavelength	≤ 1260 nm
PMD @ 1550 nm (typical)[‡]	≤ 0.02 ps/√km
Effective Group Index of Refraction	1.468 @ 1550 nm
Point Discontinuities @ 1550 nm	0.05 dB max

[†] Lower mode field diameters are available to accommodate specific cable design requirements

[‡] Low Mode Coupling (LMC) measurements

Geometrical Characteristics

Clad Diameter	125 ± 0.7 μm
Core/Clad Concentricity Error	≤ 0.5 μm
Clad Non-circularity	≤ 1.0 %
Coating Diameter, uncolored	235 to 250 μm
Coating/Clad Concentricity Error (typical)	3 μm
Coating/Clad Concentricity Error	≤ 12 μm
Coating Diameter, colored	254 ± 8 μm

Mechanical and Other

Tensile Proof Test (min)	200 kpsi (1.4 Gpa)
Dynamic Fatigue Parameter (nd)	> 20
Static Fatigue Parameter (na)	> 20
Coating Type	D-Lux® Series Coatings
Coating Strip Force (Mechanical)	1.3 N (0.3 lb-ft) min 8.9 N (2.0 lb-ft) max
Coating Adhesion	6.2 N (1.4 lb-ft) min 13 N (3.0 lb-ft) max
Colors	Customer specified
Matching Sets	Customer may order sets (groups) of fiber with matching length and mix



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OFS Marketing Communications
Doc ID: fiber-141
Date: 02/19

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