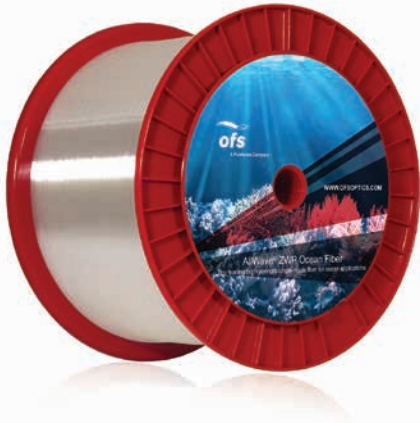




A Furukawa Company

AllWave® ZWP Ocean Optical Fiber

The Leading High-Strength Single-mode Fiber for Ocean Applications



Features and Benefits

- A patented manufacturing technology that permanently removes the water peak defect for low optical loss across the entire spectrum from 1260 to 1625 nm
- Long-term attenuation reliability due to the use of high purity synthetic silica
- Ultra-low fiber PMD for highest bit rates
- The industry's tightest geometric control for lowest splice loss

Overview

AllWave® Fiber, the industry's first Zero Water Peak (ZWP) single-mode fiber, is also available for ocean applications. A full-spectrum fiber designed for optical transmission systems operating over the entire wavelength range from 1260 nm to 1625 nm, it offers ocean customers industry-leading performance specifications, superior reliability, and unsurpassed quality.

Product Description

Developed by OFS, AllWave ZWP Ocean 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 of the cable. AllWave ZWP Fiber offers the lowest loss of all commercial low water peak fibers in the industry.

In addition to its full-spectrum low optical loss, AllWave ZWP Ocean Fiber offers the tightest available geometry, low splice loss, and low polarization mode dispersion (PMD). All lengths are proof tested to 200 kpsi to meet the stringent requirements of ocean cable.

AllWave ZWP Ocean Fiber is available as uncolored fiber or in engineered, colored and spliced sets. It is an excellent solution for dispersion compensation in ocean systems utilizing OFS' TrueWave® SRS and TrueWave XL fibers.

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® ZWP Ocean Optical Fiber

Product Characteristics

Transmission Characteristics

Attenuation @ 1550 nm (typical) 0.188 db/k 0.188 db/km

Attenuation @ 1550 nm ≤ 0.20 db/km

Dispersion Slope @ 1550 nm (typical) 0.060 ps/nm²-km

Dispersion @ 1550 nm (typical) 16.6 ps/nm-km

Mode Field Diameter @ 1550 † 10.4 ± 0.5 mm

Effective Area (typical) 83 μm²

Cable Cutoff Wavelength ≤ 1260 nm

PMD @ 1550 nm (typical)‡ ≤ 0.02 ps/√km

Effective Group Index of Refraction 1.468

† 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 (typical) 242 μm

Coating/Clad Concentricity Error (typical) 3 μm

Coating/Clad Concentricity Error ≤ 12 μm

Coating Diameter, colored 250 ± 15 μm

Mechanical and Other

Tensile Proof Test (min) 200 kpsi (1.4 Gpa)

Dynamic Fatigue Parameter (nd) ≥ 20

Coating Type D-Lux® Series Coatings

Coating Strip Force (Mechanical) 1.0 N (0.3 lb-ft) min
8.9 N (2.0 lb-ft) max

Colors Customer Specified

Matching Sets Customer may order sets (groups) of fiber with matching length and mix