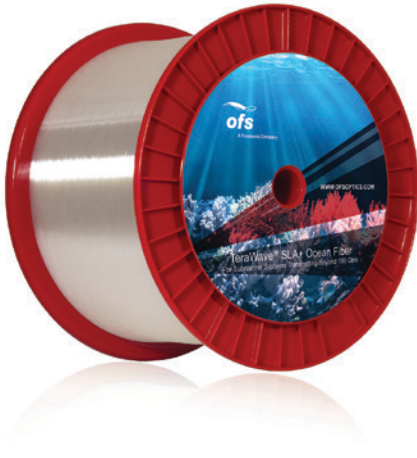




A Furukawa Company

TeraWave® SLA+ Ocean Optical Fiber

For Submarine Systems Transmitting Beyond 100 Gb/s



Applications

- Ultra-long haul networks using advanced modulation formats and coherent detection such as transoceanic networks
- Applications without repeaters, such as coastal festoons and deep-water crossings

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.

Features and Benefits

- Enables launch of higher signal power into the span
- Supports polarization-multiplexed, coherent transport using Quadrature Phase Shift Keying (QPSK) for 100 Gb/s per wavelength
- Simplifies network design
- Enables higher transmission speeds with more wavelengths over trans-oceanic distances
- Proof tested to 200 kpsi to help ensure long-term reliability under extreme conditions

Overview

TeraWave® SLA+ Ocean Fiber is designed for cost-effective coherent transport using advanced modulation formats to 100 Gb/s and beyond in submarine systems. It is fully compliant with the ITU G.654 standard for cutoff-shifted fiber.

Product Description

TeraWave SLA+ Fiber marks a significant enhancement in trans-oceanic transmission by providing a larger effective area ($130 \mu\text{m}^2$), which enables the launch of higher signal power into the span while lowering cable attenuation. It is designed to support coherent transport in today's most advanced 100 Gb/s submarine systems.

TeraWave SLA+ Fiber is manufactured using OFS' proprietary vapor axial deposition (VAD) process, which produces a fiber with zero water peak (ZWP) performance and ultra-low polarization mode dispersion (PMD). The ZWP performance is optimized for efficient 2nd order Raman pumping in unrepeated systems.

TeraWave SLA+ Fiber will maximize system performance at a significantly lower cost per bit of information.

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 Characteristics

Transmission Characteristics

Attenuation @ 1550 nm (typical) 0.184 dB/km

Relative Dispersion Slope @ 1550 nm (typical) 0.0031/nm

Dispersion @1550 nm (typical) 20 ps/nm-km

Mode Field Diameter @ 1550 (typical) 12.6 μm

Effective Area (typical) 130 μm²

Cable Cutoff Wavelength ≤ 1530 nm

PMD @ 1550 nm (typical) 0.02 ps/√km

Effective Group Index of Refraction (typical) 1.467 @ 1550 nm

Point Discontinuities @ 1550 nm < 0.10 dB

Geometrical Characteristics

Clad Diameter ≤ 125 ± 0.7 μm

Core/Clad Concentricity Error ≤ 0.5 μm

Clad Non-circularity ≤ 1.0%

Coating Diameter, uncolored (typical) 255 μm

Coating/Clad Concentricity Error ≤ 12 μm

Mechanical and Other

Tensile Proof Test (min) 200 kpsi

Dynamic Fatigue Parameter (nd) ≥ 20

Coating Strip Force (Mechanical) 102 to 918 g

Colors 18 colors available (including olive, lime, magenta, dark green, clear, and tan)

Matching Sets Yes



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