Corning® Vascade® EX2500 Optical Fiber

Product Information

CORNING

Vascade® EX2500 optical fiber is the latest innovation in Corning's subsea fiber portfolio, with the lowest loss (nominal 0.148 dB/km @ 1550 nm) and very large (nominal 125 μm^2) effective area. Compliant to ITU-T Recommendations G.654.B/D/E, Vascade EX2500 fiber is designed for the most challenging, long-distance applications that require high-transmission capacity. Suitable for both subsea routes and terrestrial long-haul networks, Vascade EX2500 fiber presents an opportunity to simplify network design and use the same fiber everywhere, helping preserve high-value subsea and core network capacity.

Vascade EX2500 fiber is also available in a 200 µm outer diameter, an industry first for G.654.E-compliant fibers, enabling higher density, higher capacity cables.

Optical Specifications

Attenuation

Wavelength (nm)	Maximum Value (dB/km)
1550	0.16
1625	0.18

Macrobend Loss

Mandrel Radius (mm)	Number of Turns	Wavelength (nm)	Induced Attenuation* (dB)
25	1	1550	≤ 0.02
30	10	1550	≤ 0.02
30	100	1550	≤ 0.1
30	100	1625	≤ 0.1

*The induced attenuation due to fiber wrapped around a mandrel of a specified radius.

Cable Cutoff Wavelength (λ_{cc})

λ_{cc} ≤ 1520 nm

Mode Field Diameter

Wavelength (nm)	Mode Field Diameter (µm)
1550	12.5 ± 0.5

Dispersion

Wavelength (nm)	Dispersion Value [ps/(nm•km)]
1550	≤ 22
1625	≤ 29

Point Discontinuity

Wavelength (nm)	Point Discontinuity (dB)
1550	≤ 0.1

Polarization Mode Dispersion (PMD)

	Value (ps/√km)
PMD Link Design Value	≤ 0.20*

*Complies with IEC 60794-3 (m = 20, Q = 0.1%)

The PMD link design value is a term used to describe the PMD of concatenated lengths of fiber (also known as PMD_Q). This value represents a statistical upper limit for total link PMD. Individual PMD values may change when fiber is cabled.

ColorPro® Identification Technology

Vascade EX2500 fiber is available in colored variants, enabled by ColorPro® identification technology. Corning fibers with ColorPro® identification technology deliver better efficiency in cable manufacturing, simplify inventory management, and leverage an enhanced fiber product offering.

How to Order

Contact your sales representative, or call the Optical Fiber Customer Service Department:
Ph: 1-607-248-2000 (U.S./Can.)
+44-1244-525-320 (Europe)
Email: cofic@corning.com Please specify the fiber type, attenuation, and quantity when ordering.

Dimensional Specifications

Glass Geometry

Fiber Curl	≥ 4.0 m radius of curvature
Cladding Diameter	125.0 ± 1.0 µm
Core-Clad Concentricity	≤ 0.8 µm
Cladding Non-Circularity	≤ 1.0%

Coating Geometry	Standard Offering	Smaller Coating Diameter Option
Coating Diameter	242 ± 5 µm	200 ± 5 µm
Coating-Cladding Concentricity	≤ 12 µm	≤ 10 µm

Environmental Specifications

Environmental Test	Test Condition	Induced Attenuation 1550 nm (dB/km)
Temperature Dependence	-60°C to +85°C*	≤ 0.05
Temperature Humidity Cycling	-10°C to +85°C up to 98% RH	≤ 0.05
Water Immersion	23°C ± 2°C	≤ 0.05
Heat Aging	85°C ± 2°C	≤ 0.05

*Reference temperature = +23°C

Mechanical Specifications

Proof Test

The entire fiber length is subjected to a tensile stress ≥ 100 kpsi (0.69 GPa) or ≥ 200 kpsi (1.38 GPa) depending on application and/or customer requirements.

Length

Constituent fiber lengths available up to 50.4 km/spool. Spliced span configurations up to 100 km/spool.

Performance Characterizations

Characterized parameters are typical values.

Effective Group Index of Refraction (n_{eff})	1550 nm: 1.4634
Fatigue Resistance Parameter (n_d)	20
Rayleigh Backscatter Coefficient (for 1 ns Pulse Width)	1550 nm: -85 dB

CORNING

Corning Incorporated
One Riverfront Plaza
Corning, NY 14831 U.S.A.
www.corning.com/opticalfiber