

Corning® ClearCurve® OM3 XT and OM4 XT Optical Fibers

Product Information



Corning® ClearCurve® OM3 XT and OM4 XT multimode optical fibers are engineered for Terabit BiDi and emerging 100G/lane transceiver technologies as part of 400G and 800G data centers. These bend resilient fibers provide extended transmission performance with established EMB values at both 850 nm and 910 nm. ClearCurve® OM3 XT and OM4 XT fibers are fully backward compatible with OM3 and OM4 multimode fibers and existing systems.

Standards Compliance

	ClearCurve® OM3 XT fiber	ClearCurve® OM4 XT fiber
IEC 60793-2-10	Type A1-OM3 fiber	Type A1-OM4 fiber
TIA	492AAAC-B	492AAAD

Optical Specifications

Bandwidth

Corning optical fiber	High Performance EMB* (MHz·km)	
	850 nm	910 nm
ClearCurve® OM3 XT fiber	2890	2220
ClearCurve® OM4 XT fiber	4700	3100

*Ensured via minEMBc, per TIA/EIA 455-220A and IEC 60793-1-49, for high performance laser-based systems.

Attenuation

Wavelength (nm)	Maximum Value (dB/km)
850	≤ 2.3
910	≤ 1.9
1300	≤ 0.6

No point discontinuity greater than 0.2 dB. Attenuation at 1380 nm does not exceed the attenuation at 1300 nm by more than 3.0 dB/km.

Macrobend Loss

Mandrel Radius (mm)	Number of Turns	Induced Attenuation (dB)		
		850 nm	910 nm	1300nm
15	2	≤ 0.1	≤ 0.1	≤ 0.3
7.5	2	≤ 0.2	≤ 0.2	≤ 0.5

Numerical Aperture

0.200 ± 0.015

Dimensional Specifications

Glass Geometry*

Core Diameter	50.0 ± 2.5 μm
Cladding Diameter	125.0 ± 1.0 μm
Core-Clad Concentricity	≤ 1.5 μm
Cladding Non-Circularity	≤ 1.0%
Core Non-Circularity	≤ 5%

*Improved geometry available upon request.

Coating Geometry

Coating Diameter	242 ± 5 μm
Coating-Cladding Concentricity	< 12 μm

ColorPro® Identification Technology

ClearCurve® OM3 XT and OM4 XT fibers are also available in colored and ringmarked 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 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.



Environmental Specifications

Environmental Test	Test Condition	Induced Attenuation 850 nm and 1300 nm (dB/km)
Temperature Dependence	-60°C to +85°C*	≤ 0.10
Temperature Humidity Cycling	-10°C to +85°C and up to 98% RH	≤ 0.10
Water Immersion	23°C ± 2°C	≤ 0.20
Heat Aging	85°C ± 2°C	≤ 0.20
Damp Heat	85°C at 85% RH	≤ 0.20

Operating Temperature Range: -60°C to +85°C

*Reference temperature = +23°C

Mechanical Specifications

Proof Test

The entire fiber length is subjected to a tensile stress ≥ 100 kpsi (0.69 GPa). Higher proof test levels are available.

Length

Fiber lengths available up to 17.6 km/spool.

Performance Characterizations

Characterized parameters are typical values.

Effective Group Index of Refraction (n_{eff})	850 nm: 1.482 1300 nm: 1.477
Fatigue Resistance Parameter (n_d)	20
Coating Strip Force	Dry: 0.6 lbs. (2.7 N) Wet: 14 days in 23°C water soak: 0.6 lbs. (2.7 N)
Chromatic Dispersion Zero Dispersion Wavelength (λ_0): Zero Dispersion Slope (S_0):	1297 nm $\leq \lambda_0 \leq$ 1315 nm $\leq 4(-103)/(840(1-(\lambda_0/840)^4))$ ps/(nm ² •km)
Spectral Attenuation (Typical Fiber)	