Corning® ClearCurve® OM5 Wide Band Optical Fiber
Product Information

Corning® ClearCurve® OM5 wide band optical fiber is designed to support Wavelength Division Multiplexing (WDM) operation over 850 – 953 nm wavelengths while offering the same bandwidth specifications at 850 nm as Corning® ClearCurve® OM4 optical fiber. Corning® ClearCurve® OM5 wide band optical fiber is designed to withstand tight bends and challenging cabling routes with full backward compatibility to OM4 fiber.

Standards Compliance

IEC 60793-2-10	Type A1-OM5 fiber
TIA	492AAAE

Optical Specifications

Bandwidth

High Performance EMB* (MHz•km)		Overfilled Modal Bandwidth** (MHz•km)		
850 nm	953 nm	850 nm	953 nm	1300 nm
4700	2470	3500	1850	500

*Ensured via minEMBc, per TIA/EIA 455-220A and IEC 60793-1-49, for high performance laser-based systems.
**OFL BW, per TIA/EIA 455-204 and IEC 60793-1-41.

Attenuation

Wavelength (nm)	Maximum Value (dB/km)
850	≤ 2.3
953	≤ 1.7
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.

Numerical Aperture

0.200 ± 0.015

Macrobend Loss

Mandrel Radius (mm)	Number of Turns	Induced Attenuation (dB) 850 nm	953 nm	1300 nm
15	2	≤ 0.1	≤ 0.1	≤ 0.3
7.5	2	≤ 0.2	≤ 0.2	≤ 0.5

ColorPro® Identification Technology

ClearCurve® OM5 wide band fiber is 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.

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

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

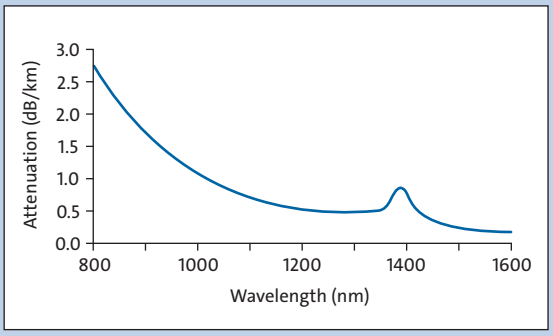
The entire fiber length is subjected to a tensile stress ≥ 100 kpsi (0.69 GPa). Higher proof test levels are available.

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 ≤ λ_0 ≤ 1315 nm ≤ 4(-103)/(840 (1-(λ_0/840)^4)) ps/(nm^2•km)
Spectral Attenuation (Typical Fiber)	

CORNING

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