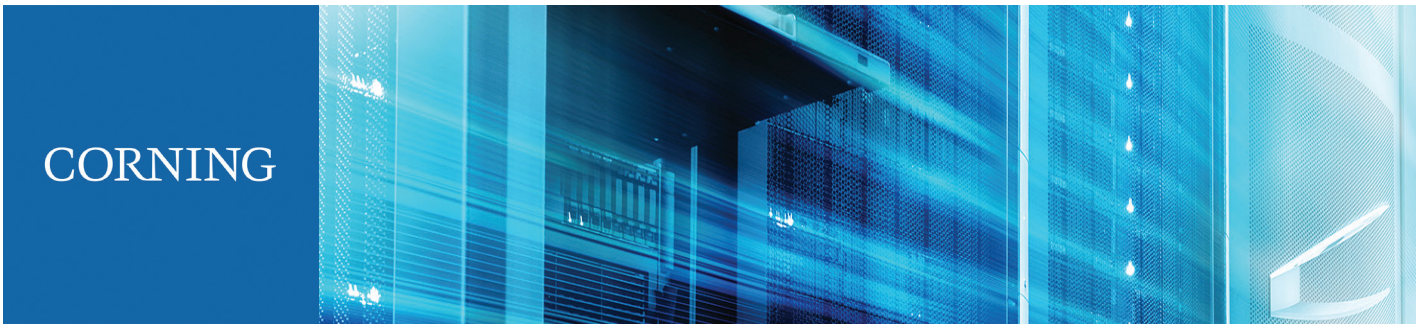
Corning® ClearCurve® OM5 Wide Band Multimode Optical Fiber

Product Information



Wide Band Performance for Multimode WDM Systems

Corning® ClearCurve® OM5 wide band multimode optical fiber is OM4 compliant and supports single wavelength or multi-wavelength transmission systems in the vicinity of 850 nm to 950 nm. The bandwidth specifications at 850 nm are equivalent to Corning® ClearCurve® OM4 multimode fiber, as well as the optical and mechanical attributes, ensuring backwards compatibility. ClearCurve OM5 wide band fiber is also designed to withstand tight bends across the entire WDM wavelength range.

Standards Compliance

ISO/IEC 11801	Type OM5 fiber
IEC 60793-2-10	Type A1a.4 fiber
TIA/EIA	492AAAE
ITU	ITU G651.1

How to Order

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

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

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

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 Aperature

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%

Coating Geometry

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

Environmental Specifications

Environmental Test	Test Condition	Induced Attenuation 850 nm & 1300 nm (dB/km)
Temperature Dependence	-60° C to +85° C*	≤ 0.10
Temperature Humidity Cycling	-10° C to +85° C and 4% 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

*Reference temperature = +23° C
Operating Temperature Range: -60° C to +85° C

Mechanical Specification

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

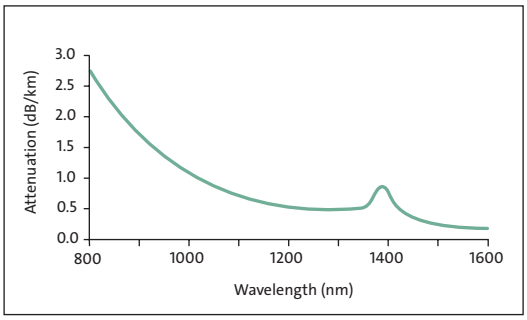
Characterized parameters are typical values.

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)	1297 nm ≤ λ_0 ≤ 1328 nm
Zero Dispersion Slope (S_0)	≤ 4(-103) / (840 (1 - (λ_0/840)^4)) ps/nm^2 * km

Spectral Attenuation (Typical Fiber)



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