

Corning® InfiniCor® 300 62.5 μm Optical Fiber

Product Information



How Do You Measure Trust? Gb/s Works for Us.

In today's enterprise networks, bandwidth demands are growing – rapidly. That's because end-user productivity is increasingly dependent on instant accessibility and high throughput of information. Narrow bandwidth constricts your capacity to succeed. Corning's InfiniCor® 300 fiber, the world's first laser-optimized™ 62.5 μm multimode fiber, will help you to stay ahead of escalating network demands with:

- Greater distance capability at data rates up to 1 Gb/s in both the 850 and 1300 nm windows
- Higher data aggregation in the backbone, riser and horizontal, compared with non-laser-optimized fibers
- Full compatibility with the broad range of laser-based and legacy protocols and applications
- Superior measurement technology and manufacturing control
- Industry-leading CPC® coating for superior microbend and environmental performance

Optimized Data Rate over Distance	1 Gb/s over 300 m at 850 nm 1 Gb/s over 550 m at 1300 nm
Standards Compliance*	
ISO/IEC 11801	type OM1 fiber
IEC 60793-2-10	type A1b fiber
TIA/EIA	492AAAA-A

*meets or exceed standards requirements for the fiber specifications listed.

Optical Specifications

Bandwidth

Intermediate Performance EMB* (MHz•km)	Legacy Performance EMB** (MHz•km)	
850 nm Only	850 nm	1300 nm
220	200	500

*RML BW, per TIA/EIA 455-204 and IEC 60793-1-41, for intermediate performance laser-based systems (typically up to 1 Gb/s).

**OFL BW, per TIA/EIA 455-204 and IEC 60793-1-41, for legacy and LED-based systems (typically up to 100 Mb/s).

Attenuation

Wavelength (nm)	Maximum Value (dB/km)
850	≤ 2.9
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 1.0 dB/km.

Induced attenuation from 100 turns around a 75 mm mandrel shall be ≤ 0.5 dB at 850 nm and 1300 nm.

Numerical Aperture

0.275 ± 0.015

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.



Dimensional Specifications

Glass Geometry		Coating Geometry	
Core Diameter	62.5 ± 2.5 μm	Coating Diameter	242 ± 5 μm
Cladding Diameter	125.0 ± 2.0 μm	Coating-Cladding Concentricity	< 12 μm
Core-Clad Concentricity	≤ 1.5 μm		
Cladding Non-Circularity	≤ 1.0%		
Core Non-Circularity	≤ 5%		

Environmental Specifications

Environmental Test	Test Condition	Induced Attenuation 850 and 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 ± 2°C	≤ 0.20
Heat Aging	85 ± 2°C	≤ 0.20
Damp Heat	85°C at 85% RH	≤ 0.20

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

Mechanical Specifications

Proof Test

The entire fiber length is subjected to a tensile stress ≥ 100 kpsi (0.69 GPa)*.

*Higher proof test levels available.

Length

Fiber lengths available up to 17.6 km/spool.

Performance Characterizations

Refractive Index Difference 2%

Effective Group Index of Refraction (N_{eff})

850 nm:	1.496
1300 nm:	1.491

N_{eff} was empirically derived to the third decimal place using a specific commercially available OTDR.

Fatigue Resistance Parameter (N_d) 20

Coating Strip Force

Dry:	0.6 lbs. (2.7N)
Wet, 14 days in 23°C water soak:	0.6 lbs. (2.7N)

Rayleigh Backscatter

Coefficient (for 1 ns Pulse Width)

850 nm:	-68 dB
1300 nm:	-76 dB

Chromatic Dispersion

Zero Dispersion Wavelength (λ_0): 1332 nm ≤ λ_0 ≤ 1354 nm

Zero Dispersion Slope (S_0): ≤ 0.097 ps/(nm²•km)

Spectral Attenuation (Typical Fiber)

