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 $^{\text{\tiny TM}}$ 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

Legacy Performance

Optimized Data Rate	1 Gb/s over 300 m at 850 nm
over Distance	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

Intermediate Performance

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.

Bandwidth

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

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

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

*RML BW, per TIA/EIA 455-204 and IEC 60793-1-

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

at 1300 nm by more than 1.0 dB/km.

Numerical Aperture

0.275 ± 0.015	



100 Mb/s).

Dimensional Specifications

Glass Geometry Coating Geometry Core Diameter Coating Diameter $62.5 \pm 2.5 \, \mu m$ $242 \pm 5 \mu m$ **Cladding Diameter** 125.0 ± 2.0 µm Coating-Cladding Concentricity < 12 µm Core-Clad Concentricity \leq 1.5 μ m **Cladding Non-Circularity** $\leq 1.0\%$ Core Non-Circularity ≤ 5%

Environmental Specifications

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

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

Performance Characterizations

Refractive Index Difference 2%

Effective Group Index 850 nm: 1.496 of Refraction (Neff) 1300 nm:1.491

 $N_{\mbox{\scriptsize eff}}$ 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

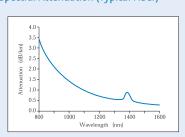
Coefficient 850 nm: -68 dB (for 1 ns Pulse Width) 1300 nm: -76 dB

Chromatic Dispersion

Zero Dispersion Wavelength (λ_0): 1332 nm $\leq \lambda_0 \leq$ 1354 nm Zero Dispersion Slope (S_0): ≤ 0.097 ps/(nm²•km)

Spectral Attenuation (Typical Fiber)

Fiber lengths available up to 17.6 km/spool.



^{*}Higher proof test levels available.