CORNING

NEW!

Corning® ClearCurve® Multimode Mid-Temperature Specialty Optical Fibers for Harsh Environments

Multimode bend insensitive optical fiber with mid-temperature acrylate-based coatings

Inquire for information about the application of mid-temperature coatings on glasses with optical properties that match your application or custom need.

The Corning® ClearCurve® Multimode bend insensitive fiber now includes even higher temperature and higher bandwidth capability. For use at temperatures up to 180 °C and beyond, this acrylate-based fiber delivers incredible macro bend performance with ease of use and handling; benefiting sensing systems operating in harsh environments.

Applications:

- Fiber Sensing and Data Transmission with tight bend and/or high bandwidth requirements for:
  - Aerospace and Defense
  - Structural Health Monitoring
  - Down-Hole Drilling

Features:

- Acrylate-base for ease of handling
- Rated for up to 180 °C (fully qualified at 165 °C)
- Test data available for 150 °C - 200 °C temperature range
- Available OM2 / OM3 / OM4 bandwidths
- Hermetic coating (optional) for protection against hydrogen induced attenuation increase and improved fatigue resistance
- Consistent strength over time at elevated temperatures
- A fiber designed to meet your specific needs with recommended minimum bending radius of 7.5 mm
- Fully compliant with ITU-Recommendations G651.1, and compatible with current optical fibers and practices

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MM50BIA-B-C

Key Optical Specifications

Operating Wavelength (nm)	850, 1060, 1300
Cable Cutoff Wavelength (nm)	N/A
Maximum Attenuation (dB/km)	
@ 850 nm	2.5
@ 1300 nm	0.7
Numerical Aperture	0.20 ± 0.015
Bandwidth (MHz-km)	See table below

	MHz-Km	OM2	OM3	OM4
High Performance EMB	850 nm	950	2000	4700
Legacy Performance OFL	850 nm	700	1500	3500
	1300 nm	500	500	500

Key Geometric, Mechanical and Environmental Specifications

Core Diameter (µm)	50 ± 2.5
Cladding Outside Diameter (µm)	125 ± 2.0
Coating Outside Diameter (µm)	245 ± 10*
Core-to-Cladding Offset (µm)	≤ 1.5
Standard Lengths	500 m, 1 km, 2 km, 5 km
Proof Test (kpsi)	100
Operating Temperature (°C)	-60 to 150 or 180**
Coating	Mid-Temperature Acrylate Optional Hermetic Layer

* 200 ±10 µm available for 150 °C only
** 180 °C product fully qualified at 165 °C

Performance Characteristics (values in this table are nominal or calculated)

Refractive Index Profile	Graded Index
Bend Loss (7.5 mm radius; 2 turns) (total induced attenuation)	
@850 nm	≤ 0.2
@ 1300 nm	≤ 0.50
Recommended Minimum Bending Radius (mm)	7.5

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Multimode Bend Insensitive Optical Fiber with:

	Category	Definition	Product Code
A	Hermetic Indicator	Non Hermetic Hermetic	(blank) H
B	Bandwidth	OM2 OM3 OM4	OM2 OM3 OM4
C	Mid-temperature Acrylate Coating Type	150 °C 180 °C	MT XMT

For more information about Corning's leadership in Specialty Fiber technology visit our website at www.corning.com/specialtyfiber

To obtain additional technical information, an engineering sample or to place an order for this product, please contact us at:

Corning Incorporated
t +1-607-974-9974
f +1-607-974-4122
e specialtyfiber@corning.com

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