

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

CORNING



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

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.

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

Applications:

- Fiber Sensing and Data Transmission with tight bend requirements 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
- Test data available at 200°C
- Higher bandwidths available
- 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

Part Number	Coating Type
MM50BI-XMT	Mid-Temperature Acrylate
MM50BIH-XMT	Mid-Temperature Acrylate AND Hermetic

Key Optical Specifications

MM50BI-XMT and MM50BIH-XMT

Operating Wavelength (nm)	850, 1060, 1300
Maximum Attenuation (dB/km)	2.5 @ 850 nm 0.7 @ 1300 nm
Numerical Aperture	0.20 ± 0.015
Bandwidth (MHz-km)*	700 @ 850 nm 500 @ 1300 nm

* Higher bandwidths available, contact Corning representative

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 Concentricity (μm)	≤ 1.5
Lengths	Sold by the meter (500 m minimum)
Proof Test (kpsi)	100 or 200
Operating Temperature (°C)	-60 to +180
Coating	Mid-Temperature Acrylate Optional Hermetic Layer

Performance Characterizations**

Refractive Index Profile	Graded Index
Recommended Minimum Bending Radius (mm)	7.5

**Values in this table are nominal or calculated values

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:

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