



Multimode Mid InfraRed Fiber

DESCRIPTION

IRphotonics Mid Infrared Fiber has an extremely low hydroxyl ion content providing high transmission efficiency from the UV through mid infrared wavelengths (up to 4.5 μm).

IRphotonics careful choice of materials and its patented manufacturing process gives this fiber outstanding optical, mechanical and environmental properties compared to other infrared fiber technologies.

This fiber is employed in power laser delivery systems, remote spectroscopy, medical and other demanding applications.

FEATURES

- Transparent in UV, VIS, NIR, MID-IR
- Flat Spectral Attenuation
- Wide Range of NA's Available
- High Core/Cladding Ratios Available for High Efficiency Bundles
- Special Coatings Available

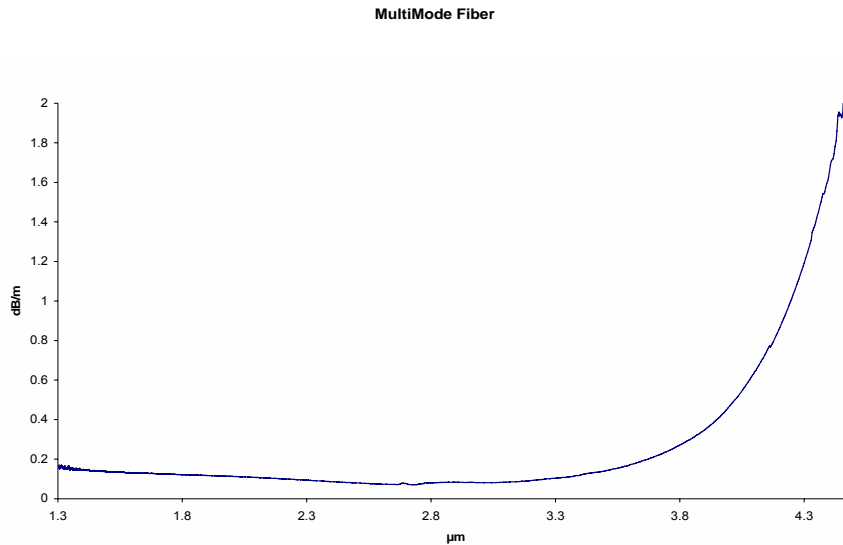
APPLICATIONS

- Industrial
- Chemical sensing
- Scientific Diagnostic

FIBER SPECIFICATIONS

- Spectral Transmission from 0.3 to 4.5 μm
- Fiber Core Diameter from 50 μm to 1 mm
- Operating Temperature: -20 $^{\circ}\text{C}$ to 150 $^{\circ}\text{C}$ (higher with special coating)
- Numerical Aperture: 0.10 to 0.25
- Breaking Bend Radius \leq 4 mm (125 μm cladding fiber)
- Proof Test Level > 50 kpsi
- Low Attenuation: < 0.2 dB/m in 1.3 to 3.8 μm range

TYPICAL SPECTRAL ATTENUATION

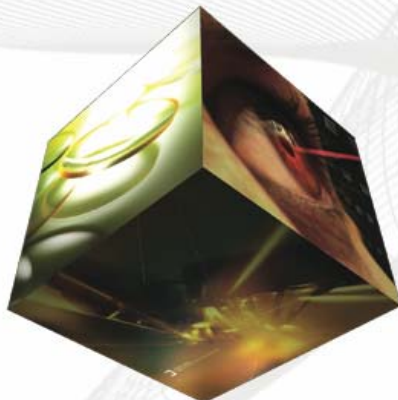


SPECIFICATIONS

Specification	MM-85	MM-100	MM-200	MM-300	MM-440	MM-600
Core Diameter	85 μm ± 7	100 μm ± 7	200 μm ± 7	300 μm ± 10	450 μm ± 15	600 μm ± 15
Cladding Diameter	125 μm ± 7	150 μm ± 7	250 μm ± 7	350 μm ± 10	510 μm ± 15	700 μm ± 15
Buffer Diameter	260 μm ± 15	270 μm ± 15	355 μm ± 15	470 μm ± 20	620 μm ± 25	770 μm ± 30
Maximum Core/Clad Offset	2 μm	3 μm	3 μm	3 μm	7 μm	15 μm
Breaking Bend Radius	4 mm	7 mm	10 mm	15 mm	25 mm	35 mm
Long Term Bend Radius	50 mm	70 mm	100 mm	150 mm	250 mm	350 mm

IRphotonics Customization Program

If you have any unique requirements, please contact us to discuss tailoring a product or design to optimize optical performance for your specific application. Custom NA's, fiber diameters and other specifications can be adapted to your requirements.



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