

# Specialty Multi-Mode Fibers

Coherent's specialty multi-mode fibers are ideal for a variety of diverse applications. They are capable of withstanding extreme environments and large temperature swings. Features include step index and graded index configurations, numerical apertures from 0.06 to 0.45 and core sizes from 10  $\mu\text{m}$  to 700  $\mu\text{m}$ . All fibers are available with a high temperature acrylate, silicone, or polyimide coating.



## Typical Applications

- Telecom FDDI, FTTH, etc.
- Optical pump & beam delivery
- Robust duty in extreme environments
- CATV and data comm.

## Features & Benefits

- Operate over wide frequency range — One fiber serves broad applications
- Exceptional uniformity and core/clad concentricity — Minimize fiber induced signal artifacts
- Higher proof test levels — Longest life expectancy
- Tight diameter control — Lowest cost deployments

## Optical Specifications

Operating Wavelength  
Core NA  
Bandwidth  
Core Attenuation

### GI-50/125-S

800 – 1350 nm  
0.200  $\pm$  0.015  
 $\geq$  500 MHz-km @ 850 nm  
 $\geq$  500 MHz-km @ 1300 nm  
 $\leq$  1.5 dB/km @ 1300 nm  
 $\leq$  4.0 dB/km @ 850 nm

### GI-62.5/125-S

800 – 1350 nm  
0.275  $\pm$  0.015  
 $\geq$  160 MHz-km @ 850 nm  
 $\geq$  500 MHz-km @ 1300 nm  
 $\leq$  0.9 dB/km @ 1300 nm  
 $\leq$  3.0 dB/km @ 850 nm

### GI-100/140-P

800 – 1350 nm  
0.290  $\pm$  0.020  
 $\geq$  100 MHz-km @ 850 nm  
 $\geq$  100 MHz-km @ 1300 nm  
 $\leq$  3.0 dB/km @ 1300 nm  
 $\leq$  5.0 dB/km @ 850 nm

## Geometrical & Mechanical Specifications

Cladding Diameter  
Core Diameter  
Coating Diameter  
Core/Clad Offset  
Core Index Profile  
Coating Material  
Operating Temperature Range  
Short Term Bend Radius  
Long Term Bend Radius  
Proof Test Level

125.0  $\pm$  2.0  $\mu\text{m}$   
50.0  $\pm$  3.0  $\mu\text{m}$   
250.0  $\pm$  20.0  $\mu\text{m}$   
 $\leq$  3.00  $\mu\text{m}$   
Graded Index  
Silicone  
-65 to 200  $^{\circ}\text{C}$   
 $\geq$  12 mm  
 $\geq$  25 mm  
 $\geq$  100 kpsi (0.7 GN/m<sup>2</sup>)

125.0  $\pm$  2.0  $\mu\text{m}$   
62.5  $\pm$  3.0  $\mu\text{m}$   
250.0  $\pm$  20.0  $\mu\text{m}$   
 $\leq$  3.00  $\mu\text{m}$   
Graded Index  
Silicone  
-65 to 200  $^{\circ}\text{C}$   
 $\geq$  12 mm  
 $\geq$  25 mm  
 $\geq$  100 kpsi (0.7 GN/m<sup>2</sup>)

140.0  $\pm$  3.0  $\mu\text{m}$   
100.0  $\pm$  3.0  $\mu\text{m}$   
172.0  $\pm$  2.0  $\mu\text{m}$   
 $\leq$  5.00  $\mu\text{m}$   
Graded Index  
Polyimide  
-65 to 300  $^{\circ}\text{C}$   
 $\geq$  7 mm  
 $\geq$  15 mm  
 $\geq$  200 kpsi (1.4 GN/m<sup>2</sup>)



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www.coherent.com ; www.shop.coherent.com • Coherent products are manufactured under an ISO 9001:2008 certified quality management system.



Custom developed fiber (FUD) specifications are subject to change without notice. Other configurations such as alternative form factors, optimized cut-off and UV cured color coating may be available. Let us know how Coherent can assist with your requirements.