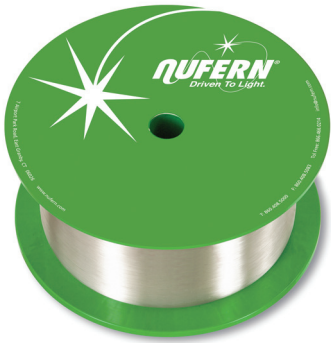


# Specialty Multi-Mode Fibers



Nufern'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 (nominal)  
Numerical Aperture  
Bandwidth  
Bandwidth  
Attenuation  
Attenuation

### GI50/125S

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

### GI62.5/125S

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

### GI100/140P

800 – 1350 nm  
0.29  $\pm$  0.02  
 $\geq$  100 MHz-km @ 850 nm  
 $\geq$  100 MHz-km @ 1300 nm  
 $\leq$  5.0 dB/km @ 850 nm  
 $\leq$  3.0 dB/km @ 1300 nm

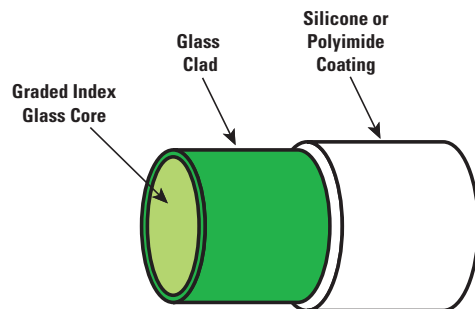
### Geometrical & Mechanical Specifications

Core Diameter  
Clad Diameter  
Coating Diameter  
Core-Clad Concentricity  
Coating Material  
Operating Temperature  
Short-Term Bend Radius  
Long-Term Bend Radius  
Proof Test Level (Radius Bend Method)

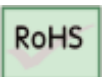
50  $\pm$  3  $\mu\text{m}$   
125  $\pm$  2  $\mu\text{m}$   
250  $\pm$  20  $\mu\text{m}$   
< 3  $\mu\text{m}$   
Thermally Cured Silicone  
- 65 to + 200°C  
 $\geq$  12 mm  
 $\geq$  25 mm  
 $\geq$  100 kpsi (0.7 GN/m<sup>2</sup>)

62.5  $\pm$  3  $\mu\text{m}$   
125  $\pm$  2  $\mu\text{m}$   
250  $\pm$  20  $\mu\text{m}$   
< 3  $\mu\text{m}$   
Thermally Cured Silicone  
- 65 to + 200°C  
 $\geq$  12 mm  
 $\geq$  25 mm  
 $\geq$  100 kpsi (0.7 GN/m<sup>2</sup>)

100  $\pm$  3  $\mu\text{m}$   
140  $\pm$  3  $\mu\text{m}$   
172  $\pm$  2  $\mu\text{m}$   
< 5  $\mu\text{m}$   
Thermally Cured Polyimide  
- 65 to + 300°C  
 $\geq$  7 mm  
 $\geq$  15 mm  
 $\geq$  200 kpsi (1.4 GN/m<sup>2</sup>)



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Standard specifications and design parameters are listed above. 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 Nufern can assist with your requirements.