

GRADED INDEX MULTIMODE CARBON POLYIMIDE COATED FIBER



These germanium doped, 62.5 μ m and 50 μ m core, graded index fibers provide good performance in hydrogen rich or radiation environments.

The carbon and polyimide coatings provide hermetic protection from hydrogen, moisture and acid ingress, increasing the lifetime of the fiber by protecting the fiber from moisture induced micro cracking.

These fibers are designed to withstand harsh environments such as high temperature, high pressure, moisture, chemicals and radiation. Oil and gas applications can include: downhole temperature sensing, pressure monitoring, data transmission, offshore oil and gas asset monitoring, Enhanced Oil Recovery (EOR) including Steam Assisted Gravity Drainage (SAGD) techniques and borehole seismic sensing can benefit by using these fibers.

FEATURES

Advantages

- Excellent hydrogen resistance
- High temperature operation
- Hermetically coated
- Grad index profile

Typical Applications:

- Distributed Temperature Sensing (DTS)
- Pipeline monitoring
- Fire detection systems
- Production/injection monitoring

Product Variants

- GIMM(50/125)CP
Graded index multimode fiber with 50 μ m core, 125 μ m cladding with carbon and polyimide coatings
- GIMM(62.5/125)CP
Graded index multimode fiber with 62.5 μ m core, 125 μ m cladding with carbon and polyimide coatings

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SPECIFICATIONS

	GIMM(50/125)CP *	GIMM(62.5/125)CP
Operating Wavelength (nm)	800 - 1750	
Numerical Aperture	0.18 - 0.22	0.25 - 0.30
Attenuation (dB/km)	≤4.0 @850nm ≤2.0 @1300nm	
Proof Test (%)	1 or 2 (100 or 200 kpsi)	
Bandwidth (MHz.km)	400/400 @850/1300nm	160/160 @850/1300nm
Cladding Diameter (μm)	125 ± 2	
Core Cladding Concentricity (μm)	≤2.0	
Coating Diameter (μm)	155 ± 5	
Core Diameter (μm)	50	62.5
Coating Type	Carbon Polyimide	
Operating Temperature (°C)	-50 to +300	

* Special easier to strip polyimide coating available for window stripping, for applications such as FBGs.

COATING ORDER GUIDE

- Dual Layer Acrylate = No order code
- Polyimide = P
- Carbon High Temperature = CHT
- Carbon Polyimide = CP

Order Code Example

SM1250SC(9/125) with a Carbon High Temperature coating: SM1250SC(9/125)CHT

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RELATED PRODUCTS

- Graded Index Multimode Carbon High Temperature Acrylate Coated Fiber
- Graded Index Multimode Polyimide Coated Fiber
- Graded Index Multimode High Temperature Acrylate Coated Fiber
- Graded Index Multimode Pure Silica Core Fiber

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