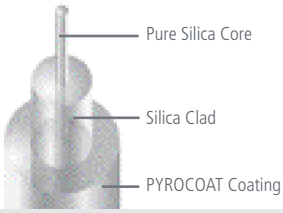
Specification Sheet

Single-Mode
GeoSil™-SM

ofs
A Furukawa Company

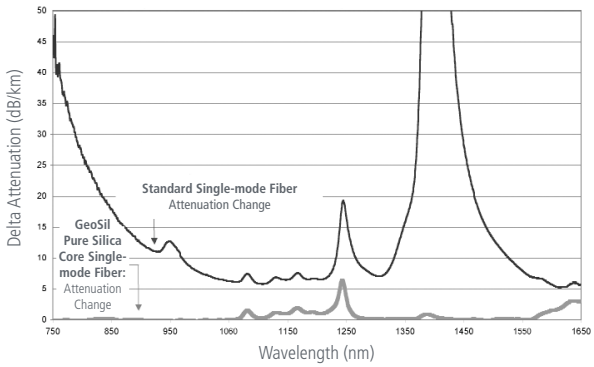


GeoSil-SM fibers, made with a pure silica core and high 0.17 NA, offer extreme resistance to hydrogen plus low bend loss. The abrasion-resistant and chemically resistant PYROCOAT® polyimide coating allows performance to 300 degrees C for mechanical reliability in the down-hole environment.

GEOSIL-SM	
Optical Properties	
Operating wavelength	1550 nm
Cutoff wavelength	1440 nm ± 60 µm
Mode field diameter @ 1550 nm	7.8 ± 0.5 µm
Attenuation @ 1550 nm	≤1.0 dB/km
Bend loss @ 1550 nm (1 turn on a 10 mm diameter mandrel / FOTP-62)	≤0.10 dB
Numerical aperture (nominal)	0.17
Dimensions/Geometric Properties	
Clad diameter	125 ± 2 µm
Coating/buffer diameter	155 ± 5 µm
Clad non-circularity	≤2%
Core/clad offset	≤1.0 µm
Coating diameter	155 ± 5 µm
Coating concentricity	≥80 %
Coating Descriptions	
Coating material	PYROCOAT Polyimide
Operating temperature	-65 to +300°C
Mechanical and Testing Data	
Bend radius: Short-term	≥10 mm
Long-term	≥15 mm
Proof test level	≥100 kpsi (0.689 GPa) or ≥ 200 kpsi (1.38 GPa) by special order
Order by Part Number: Location Ⓐ	**F21976**
Typical Applications	Distributed temperature sensing • High-temperature DTS • Datacom in harsh environments • Local area networks with elevated temperature requirements

Options: Cabling, Connectorization, Metalization, Additional Coatings, Other Upgrades.

Hydrogen-Induced Attenuation: GeoSil-SM vs Standard SM



H_2 Soak Test Parameters for this test:
300-hour Duration at 215°C under 1500 psi*

**pressure measured and held when H_2 chamber was ramped to the full 215°C temperature*

Alternate Test Parameters:
GeoSil-SM fibers were also tested separately at 100 psi of hydrogen at 280°C for 350 hours. Result was no measurable change in attenuation at 1550 nm.

Ⓐ **AVON LOCATION (headquarters)**
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