Spun Fibre (SF)

YOFC's spun fibre is manufactured by spinning a polarization maintaining preform during the fibre drawing process, featuring high mechanical reliability and geometric consistency. The preform is deposited through Plasma Chemical Vapor Deposition (PCVD) process, which enables a precise refractive index profiles and dimensional tolerances of the fibre. Excellent environmental immunity and circular polarization-maintenance performance are obtained by design to meet the requirement of applications, such as fibre optic current transformer (FOCT).

With dual-layer, UV-cured acrylate coating, YOFC spun fibre has high environmental stability performance over the temperature range of -45°C to +85°C (-49 °F to +185 °F).

Characteristics

- Excellent and stable optical performance
- Optimized for current sensing
- High environmental stability and reliability
- Low attenuation

Applications

- Fibre optic current transformer
- DC and AC current sensors
- Polarimetric sensors

Specifications

Fibre Type	SH 1310_125-5/250
Part No.	SH1016-A
Optical Properties	
Operating Wavelength (nm)	1310
Fibre Cut-off Wavelength (nm)	1020 - 1260
Mode Field Diameter (μm)	7.0 ± 1.0 @1310nm
Attenuation (dB/km)	⩽ 2.0 @1310nm
Beat Length (mm)	9 - 14 @1310nm
Geometrical Properties	
Spin Pitch (mm)	5.0 ± 0.2
Cladding Diameter (μm)	125.0 ± 1.0
Coating Diameter (μm)	245.0 ± 7.0
Cladding Non-circularity (%)	⩽ 1.0
Core/Cladding Concentricity (μm)	⩽ 1.0
Coating Type	Dual-layer UV-acrylate
Mechanical Properties	
Operating Temperature (°C)	-45 to +85
Proof Test (kpsi)	50 or 100

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