

Radiation-Resistant Erbium Doped/ Polarization-Maintaining Erbium Doped Fibre

YOFC's radiation-resistant erbium doped fibre/polarization-maintaining erbium doped fibre offers numerous advantages, including long service life, low radiation induced attenuation, and high reliability. Additionally, this fibre can be customized for specific performance requirements, making it ideal for optical fibre amplifiers used in long-term space satellite communications and other irradiation environments.

Features

- Excellent consistency and stability
- Excellent radiation resistance
- Adjustable absorption coefficient

Applications

- Satellite communications
- Nuclear power plant
- Medical equipment
- High energy physics experiment

Specifications

Fibre type	EDF SC 25/5.5/125RD	PM EDF 35/5.0/125RD	PM EDF 80/6.5/125RD
Optical specifications			
Operating wavelength (nm)	1525~1565	1525~1565	1525~1565
Core absorption@1530nm (dB/m)	25±3	35±5	80±20
Mode field diameter@1550nm(μm)	5.5±1.0	5.0±1.0	6.5±1.0
Cutoff (nm)	<1150	<1400	890±90
Birefringence	/	≥2.0×10 ⁻⁴	≥2.0×10 ⁻⁴
Dispersion@1550nm Ps/(nm*km)	/	≤-5	≤-10
Geometrical and mechanical specifications			
Core diameter (μm)	~3.2	~3.2	~4.0
Cladding diameter (μm)	124.8±0.7	124.8±0.7	124.8±0.7
Cladding noncircularity (%)	≤ 0.7	≤ 0.7	≤ 0.7
Core/Cladding offset (μm)	≤ 0.3	≤ 0.3	≤ 0.3
Coating diameter (μm)	245.0±10.0	245.0±10.0	245.0±10.0
Cladding/Coating offset (μm)	≤6	≤6	≤6
Proof test level (kpsi)	≥100	≥100	≥100
Coating material	High Index Acrylate	High Index Acrylate	High Index Acrylate
Environmental specifications			
RIA@1545nm (dB/m/krad)	< 0.015	< 0.015	< 0.015
RIA@980nm (dB/m/krad)	< 0.025	< 0.025	< 0.025
Standards compliance	ROHS2.0, REACH	ROHS2.0, REACH	ROHS2.0, REACH

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