

TRIPLE-CLAD DOPED FIBER

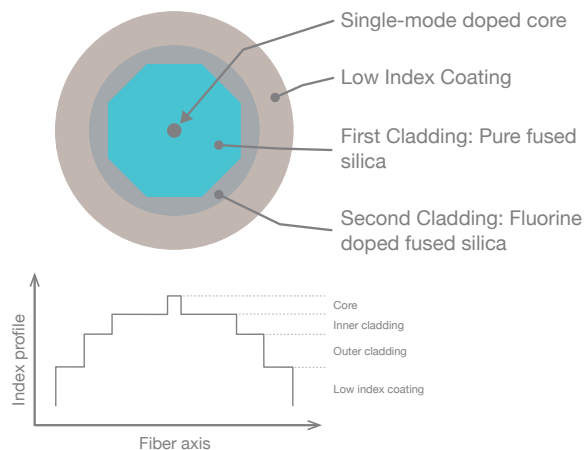


Fibercore's triple-clad doped fibers are designed for fiber lasers and high power CATV and telecoms amplifiers.

Their unique triple cladding structure is designed to encapsulate the octagonal mode mixing pump guide within a circular outer cladding, enabling lower splice losses and lower splice variability associated with fibers with octagonal outer regions. This triple cladding structure also gives an additional mode confinement structure to reduce the amount of pump light at the cladding-coating interface to aid coating reliability.

Fibercore's triple-clad erbium/ytterbium doped fibers (TC1500Y) are designed as single-mode, high-power CATV and telecommunications amplifier fibers. The TC1500Y(6/125)HD offers a smaller Mode Field Diameter (MFD) for higher efficiency levels at output signal power around 1W. The TC1500Y(11/125)HD is designed for output signal power at 5W and above.

The TC1060Y(10/125)0.08HD is a ytterbium doped fiber designed for use in pulsed and CW fiber lasers. The composition is optimized to avoid the effects of photodarkening to ensure long lifetime and high reliability.



FEATURES

Advantages

- Circular outer cladding for high splice repeatability
- Easy to strip, cleave and splice
- Octagonal inner structure optimizes pump conversion effectively
- High reliability

Product Variants

- TC1060Y(10/125)0.08HD
Triple-clad Yb doped fiber
- TC1500Y(6/125)HD
Triple-clad ErYb doped fiber
- TC1500Y(11/125)HD
Triple-clad ErYb doped fiber

Typical Applications:

- High Power Erbium Doped Fiber Amplifiers (EDFAs)
- Ytterbium/Erbium Doped Fiber Amplifier (YEDFA)
- Fiber Lasers
- Light Detection and Ranging (LIDAR)
- Cable Television (CATV)

To find out more visit fibercore.com

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SPECIFICATIONS

	TC1060Y (10/125)0.08HD *	TC1500Y (6/125)HD	TC1500Y (11/125)HD
Laser Core			
Composition	Ytterbium	Erbium and ytterbium	
Operating Wavelength (nm)	1060	1520 - 1570	
Numerical Aperture	0.07 - 0.08	0.20 - 0.23	0.10 - 0.13
Mode Field Diameter (μm)	-	5.6 - 7.2 @1550nm	9.6 - 12 @1550nm
Single-Mode Core Diameter (μm)	10 - 12	-	-
Cut-Off Wavelength (nm)	-	1290 - 1510	
Peak Core Absorption (dB/m)	-	75 ± 20 @1535nm	
Pump Guide			
Composition	Pure silica with F-doped silica cladding		
Mean Core Diameter (μm)	105 - 115		
Absorption (dB/m)	1.1 - 1.5 @915nm	0.6 - 0.9 @915nm	2.5 - 4.5 @915nm
Numerical Aperture of low index coating w.r.t. silica	0.45 (Nominal)		
General			
Proof Test (%)	1 (100 kpsi)		
Cladding Diameter (μm)	125 ± 1		
Coating Diameter (μm)	245 ± 15		
Coating Type	Low index acrylate		

* Passive DC variant available

RELATED PRODUCTS

- Dual-Clad Erbium/Ytterbium Doped Fiber
- Low Index Double Clad Passive Fiber

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