

Triple-cladding Ytterbium-doped Fiber

Everfoton's next-generation Triple-cladding Ytterbium-doped Fiber is engineered through rigorous design and proven market experience, specifically tailored for high-power continuous-wave fiber laser applications. With optimized doping ratios and absorption design, it delivers excellent resistance to photodarkening, ensuring long-term stable operation of laser systems and significantly extending equipment service life.

Characteristics

- High slope efficiency
- Low photodarkening
- Precise parameter control and consistency
- Long-term reliability coating design

Applications

- Continuous-wave fiber lasers
- Cutting
- Welding

Specifications

Fiber Type	YDF_TC 14/465/530	YDF_TC 34/460/530 (low)	YDF_TC 34/460/530	YDF_TC 45/465/530
Part No.	YD1112-C	YD1112-D	YD1112-A	YD1112-B
Optical Properties				
Operating Wavelength (nm)	1030 - 1115			
Yb Cladding Absorption@915nm (dB/km)	0.25±0.10	0.60±0.10	1.00±0.20	1.00±0.20
Core NA	0.060±0.010	0.090±0.010	0.090±0.010	0.090±0.010
Inner Cladding NA	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02
Cladding NA	≥0.46	≥0.46	≥0.46	≥0.46
Core Background Loss(1200nm) (dB/km)	≤15	≤15	≤15	≤15
Physical/Material Parameters				
Core Diameter (μm)	14.0±1.5	35.0±1.5	35.0±1.5	45.0±1.5
Inner Cladding Diameter (μm)	465.0±10	465.0±10	465.0±10	465.0±10
Cladding Diameter (μm)	530.0±10	530.0±10	530.0±10	530.0±10
Coating Diameter (μm)	640.0±20	640.0±20	640.0±20	640.0±20
Core/Cladding Offset (μm)	≤2.5	≤2.5	≤2.5	≤2.5
Cladding Non-Circularity (%)	≤0.5	≤0.5	≤0.5	≤0.5
Proof Test Level (kpsi)	≥100	≥100	≥100	≥100