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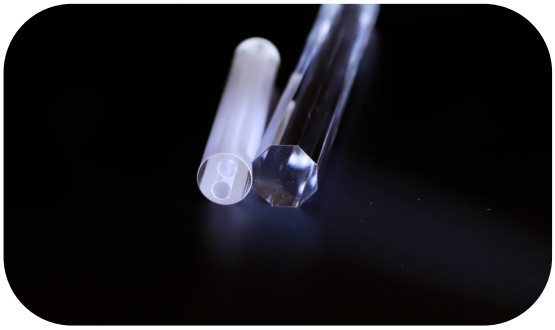
Yb-doped Large Mode Area Fiber

Product Description

The 400 μm cladding diameter double cladding Yb-doped fiber is composed of an optimized fiber preparation process and high-performance glass. Designed for continuous lasers in the 3 kW class and above, the fiber features near-single-mode transmission, low bending loss, low photon darkening, and high efficiency, and it can be widely used in materials processing, medicine, and scientific research.

Features

- Highly accurate geometric dimension control
- Near single-mode transmission
- High laser slope efficiency
- High mode instability threshold
- Low photon darkening effect
- Reliable stability in high temperature and high humidity environments
- Both PM and non PM are customized
- Radiation resistant types are available



Applications

- Industry and scientific research
- High power continuous fiber lasers and amplifiers

Specifications

Optical Specifications

Part Number	YDF-20/400-PM	YDF-25/400-PM
Operating wavelength (nm)	1030-1115	1030-1115
Core NA	0.060±0.005	0.055±0.005
Cladding NA	≥0.46	≥0.46
Cladding absorption (dB/m@915 nm)	0.4±0.05	0.5±0.1
Cladding attenuation (dB/km@1095 nm)	≤15.0	≤15.0
Core attenuation (dB/km@1200 nm)	≤15.0	≤15.0
Birefringence	$\geq 2.0\times10^{-4}$	$\geq 2.0\times10^{-4}$

Geometric and Mechanical Specifications

Core diameter (μm)	20.0±1.5	25.5±1.5
Cladding diameter (μm)	400.0±5.0	400.0±5.0
Coating diameter (μm)	540.0±10.0	540.0±10.0
Concentricity (μm)	≤2.0	≤2.0
Coating materials	Low index acrylate	Low index acrylate
Prooftest level (kpsi)	≥100	≥100