



DCF-YB-25/400-16

Yb-Doped Fiber – True Phosphosilicate

This Yb-doped phosphosilicate fiber is designed for multimode operation in the 1 μm region. Manufactured under a carefully control process, the refractive index profile and core chemical composition allow high reproducibility. This ensures a reliable batch-to-batch consistency. With its output power of up to 4kw in multimode, this fiber allows the design of laser cavity without being limited by non-linear effects and transverse mode instabilities (TMI). It is ideal for industrial applications requiring high power output.

Features & Benefits

- Photodarkening-free – excellent batch-to batch consistency
- Multimode operation – no limitations caused by nonlinear effects and transverse mode instabilities (TMI)
- High fiber laser efficiency (> 70%)
- High stability against pump wavelengths between 915 nm to 970 nm
- Output power up to 4 kW in a single cavity

Applications

- High-power CW fiber lasers
- Material processing: cutting and welding

Related Products

- DCF-UN-25/400-16
Matched passive double- clad fiber

Specifications

Optical

Background Loss @1100 nm (dB/km)	<= 10
Background Loss @1200 nm (dB/km)	<= 10
Cladding Absorption @ 915 nm (dB/m)	0.65 ± 0.1
Numerical Aperture - Cladding	Min 0.45
Numerical Aperture - Core	0.16 ± 0.01

Geometrical & Mechanical

Cladding diameter (μm)	400 ± 15
Cladding geometry	Oct.
Coating Diameter (μm)	560 ± 20
Core Diameter (μm)	25 ± 1
Core/Cladding Concentricity Error (μm)	<= 2
Proof Test (kpsi)	>= 100

Environmental

Storage Temperature (°C)	-40 to +85
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