

DCF-YB-15/250P-FVA

Yb-Doped Fiber - True Phosphosilicate



The high demand for a photodarkening-free optical fiber for multi kW single-mode CW fiber laser applications near 1 Qm has driven the development of this phosphosilicate fiber. Manufactured under a carefully control process, its refractive index profile and core chemical composition allow high reproducibility. This ensures a reliable batch-to-batch consistency. With output power up to 1.5 kW with very low nonlinear effects, this fiber is best for industrial applications requiring high-power output.

Features & Benefits

- **Photodarkening-free** – excellent batch-to-batch consistency
- Accurate matching MFD design with related passive fiber – allows single-mode operation and low splicing losses
- **High cladding absorption** – reduces fiber length in order to mitigate nonlinear effects such as SRS
- High fiber laser efficiency (> 70%)
- High **stability** against pump wavelengths between 915 nm to 970 nm
- Output power up to 1.5 kW

Applications

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

Related Products

- **DCF-UN-10/245-080**
Matched double-clad passive fiber

Specifications

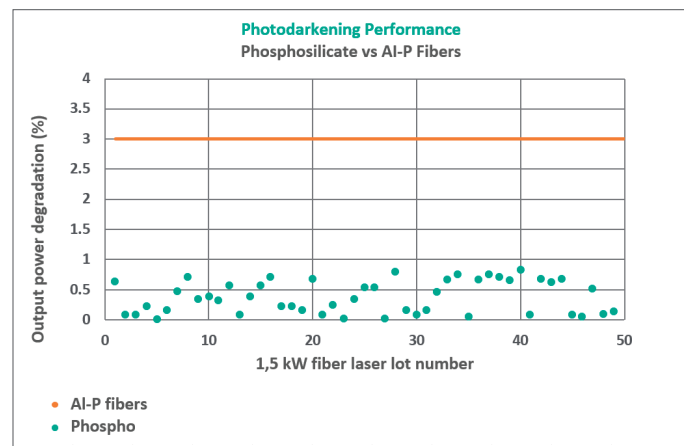
Optical

| | |
|-------------------------------------|-------------|
| Cladding Absorption @ 915 nm (dB/m) | 0.73 ± 0.05 |
| Numerical Aperture - Core | 0.11 ± 0.01 |
| Numerical Aperture - Cladding | > 0.45 |
| Background Loss @ 1200 nm (dB/m) | < 10 |
| Mode Field Diameter @ 1080 nm (µm) | 11.5 ± 0.7 |

Geometrical & Mechanical

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|--|-----------|
| Core Diameter (µm) | 15 ± 2 |
| Cladding Diameter (µm) | 250 ± 5 |
| Core/Cladding Concentricity Error (µm) | < 1 |
| Cladding Geometry | Octagonal |
| Coating Diameter (µm) | 375 ± 15 |
| Proof Test (kpsi) | ≥ 100 |

Performances



ISO 9001:2015 certified quality system | RoHS and REACH compliant.
All specifications are subject to change without notice. Reference: 101-10-0913.R1