

DCF-TM-25/400P-08

LMA Tm doped fiber

The DCF-TM-25/400P-08 is a large-mode-area (LMA), double-clad, thulium-doped fiber featuring an optimized pedestal core design for high-power operation in the 1.9–2.1 μm wavelength range. With a 25 μm core and a 400 μm pump cladding, it delivers excellent beam quality, high brightness, and efficient pump absorption, making it an ideal gain medium for high-power fiber lasers and amplifiers.

Features & Benefits

- Octagonal cladding shape
- High and constant pump absorption
- Tested at >100 kpsi to ensure long-term reliability during winding
- Strong power scaling capability

Applications

- Precision medical
- High brightness laser systems
- Coherent sensing
- Mid-IR pumping
- Directed energy and advanced research

Specifications

Optical

Cladding Absorption @ 790nm (dB/m)	3.9 ± 0.6
Numerical Aperture - Cladding	Min 0.45
Numerical Aperture - Core	0.085 ± 0.01

Geometrical & Mechanical

Cladding diameter (μm)	400 ± 10
Cladding geometry	Oct.
Coating Diameter (μm)	565 ± 15
Core Diameter (μm)	25 ± 1
Core Ovality (%)	≤ 8
Core/Cladding Concentricity Error (μm)	≤ 2
Proof Test (kpsi)	≥ 100

Environmental

Storage Temperature ($^{\circ}\text{C}$)	-40 to +85
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