

LIEKKI® Yb700-20/125DC fiber is a medium doped fiber with large core-to-cladding ratio. The fiber combines high pump absorption with an extremely high photodarkening resistivity for enabling short application lengths and long-term reliability. In addition, the large, low-NA core provides a high beam quality with effective suppression of nonlinear effects. These features make the LIEKKI® Yb700-20/125DC fiber ideal for pulsed amplifier designs at medium power levels.



Features

- Industry leading fiber deposition process — Direct Nanoparticle Deposition
- *real*NA — most accurate fiber core NA to enable superior predictability of fiber performance and minimal splice loss
- Large, low-NA core for low nonlinearity and high beam quality applications
- Very high photodarkening resistivity for long-term reliability
- High pump absorption enabling short application lengths
- Acrylate coating enables fiber applications in extreme environmental conditions: Proven to operate up to 120°C and in extreme humidity.
- Matching passive fibers available for minimal splice loss

Applications

- Medium average power pulsed fiber amplifiers
- Marking and material processing lasers

Typical Fiber Specifications

Fiber		LIEKKI® Yb700-20/125DC
Optical	Units	
Peak Cladding Absorption at 976 nm (nominal)	dB/m	(17.2)
Cladding Absorption at 920 nm	dB/m	4.0 ± 0.5
Mode Field Diameter ⁽¹⁾ (nominal)	μm	(15.9)
Core Numerical Aperture (<i>real</i> NA)		0.080 ± 0.005
Cladding Numerical Aperture, ≥		0.48
Core background loss at 1200 nm, ≤	dB/km	25
Geometrical and mechanical		
Core Diameter	μm	20.0 ± 1.5
Core Concentricity Error, ≤	μm	1.0
Cladding Diameter (flat-to-flat)	μm	125 ± 2
Cladding Geometry		Octagonal
Coating Diameter		245 ± 15
Coating Material		Dual coated low index acrylate
Proof Test, ≥	kpsi	100

⁽¹⁾ Far-field Mode Field Diameter at 1060nm