

LIEKKI® Yb700-30/250 fibers are medium doped fibers with large core-to-cladding ratio. The fibers feature high pump absorption at an extremely high photodarkening resistivity for enabling short application lengths and long-term reliability. Together with the very high beam quality, these fibers are ideal for CW or pulsed amplifier designs.

LIEKKI® Yb700-30/250 fibers are available as double-clad (Yb700-30/250DC) and double-clad polarization maintaining (Yb700-30/250DC-PM) fibers.



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 very high beam quality
- Very high photodarkening resistivity for long-term reliability
- High pump absorption for compact designs and low nonlinearities
- Acrylate coating proven to operate up to 120°C and in extreme humidity.
- Matching passive fibers available with optimized design for minimal splice loss

Applications

- High peak and average power pulsed amplifiers
- CW amplification
- IR source for frequency doubling
- Materials processing
- LIDAR
- Range finding

Typical Fiber Specifications

Fiber		LIEKKI® Yb700-30/250DC	LIEKKI® Yb700-30/250DC-PM
Optical	Units		
Peak Cladding Absorption at 976 nm (nominal)	dB/m	(9.5)	(9.5)
Cladding Absorption at 920 nm	dB/m	2.2 ± 0.3	2.2 ± 0.3
Mode Field Diameter ⁽¹⁾ (nominal)	μm	(22.2)	(22.8)
Core Numerical Aperture (<i>real</i> NA)		0.070 ± 0.005	0.062 ± 0.005
Cladding Numerical Aperture, ≥		0.48	0.48
Core background loss at 1200 nm, ≤	dB/km	25	25
Birefringence, ≥	1E-04	-	1.4
Geometrical and mechanical			
Core Diameter	μm	30.0 ± 2.0	30.0 ± 2.0
Core Concentricity Error, ≤	μm	1.2	1.2
Cladding Diameter (flat-to-flat)	μm	250 ± 5	250 ± 5
Cladding Geometry		Octagonal	Round, PANDA
Coating Diameter		350 ± 15	350 ± 15
Coating Material		Dual coated low index acrylate	Dual coated low index acrylate
Proof Test, ≥	kpsi	100	100

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