

LIEKKI® Yb1200-30/250 fibers are very highly doped fibers which feature very high cladding absorption at low photodarkening loss, high efficiency per application length and very high beam quality. These fibers are ideal for high power pulsed fiber amplifiers where short application lengths are crucial to avoid nonlinear effects.

LIEKKI® Yb1200-30/250 fibers are available as double-clad (Yb1200-30/250DC) and double-clad polarization maintaining (Yb1200-30/250DC-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 pump absorption enables short application lengths for compact designs and avoidance of nonlinear effects
- Low photodarkening loss
- Acrylate coating proven to operate up to 120°C and in extreme humidity.
- Matching passive fibers available for minimal splice loss

Applications

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

Typical Fiber Specifications

Fiber		LIEKKI® Yb1200-30/250DC	LIEKKI® Yb1200-30/250DC-PM
Optical	Units		
Peak Cladding Absorption at 976 nm (nominal)	dB/m	(14.2)	(14.6)
Cladding Absorption at 920 nm	dB/m	3.3 ± 0.6	3.4 ± 0.6
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