LIEKKI® Yb300-6/125 fibers are highly doped single mode single clad fibers for low power fiber laser and amplifier applications. Combining high core pump absorption, extremely high photodarkening resistivity and excellent, single-mode beam quality makes these fibers ideal for realizing, e.g., low average power femtosecond fiber lasers or preamplifiers in a fiber amplifier chain.

LIEKKI® Yb300-6/125 fibers are available as single clad (Yb300-6/125) and single clad polarization maintaining (Yb300-6/125-PM) fibers.
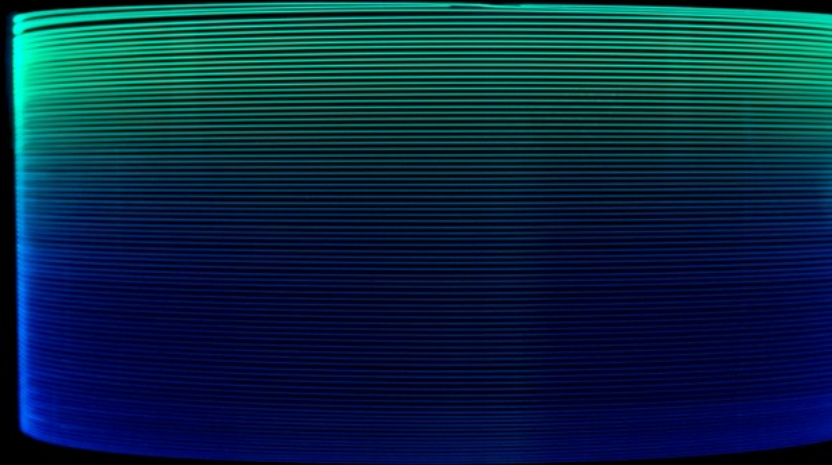
Features

- 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
- Excellent single mode beam quality for 1 μm applications
- Extremely high photodarkening resistivity
- Good spliceability and compatibility to standard single mode fibers (e.g. PM980, SM980); also matching nLIGHT passive fibers available

Applications

- Low average power femtosecond fiber lasers
- Low-power core pumped pre-amplifier for fiber amplifier chain
- IR sources for frequency doubling

Typical Fiber Specifications

Fiber	Units	LIEKKI® Yb300-6/125	LIEKKI® Yb300-6/125-PM
Optical			
Mode Field Diameter at 1060 nm [1]	μm	7.0 ± 0.5	7.0 ± 0.5
Peak Core Absorption at 976 nm (nominal)	dB/m	(300)	(300)
Peak Core Absorption at 920 nm	dB/m	75 ± 10	75 ± 10
Core Numerical Aperture (*real*NA)		0.120 ± 0.005	0.120 ± 0.005
Cut-off wavelength [2]	nm	860 ± 70	860 ± 70
Core background loss at 1200 nm, ≤	dB/km	25	25
Birefringence, ≥	1E-04	-	2.0
Geometrical and mechanical			
Core diameter (nominal)	μm	(5.5)	(5.5)
Core Concentricity Error, ≤	μm	1.0	1.0
Cladding Diameter (flat-to-flat)	μm	125 ± 2	125 ± 2
Cladding Geometry		Round	Round, PANDA
Coating Diameter		245 ± 15	245 ± 15
Coating Material		Dual coated high index acrylate	Dual coated high index acrylate
Proof Test, ≥	kpsi	100	100

[1] Far-field Mode Field Diameter
[2] Calculated value

nLIGHT