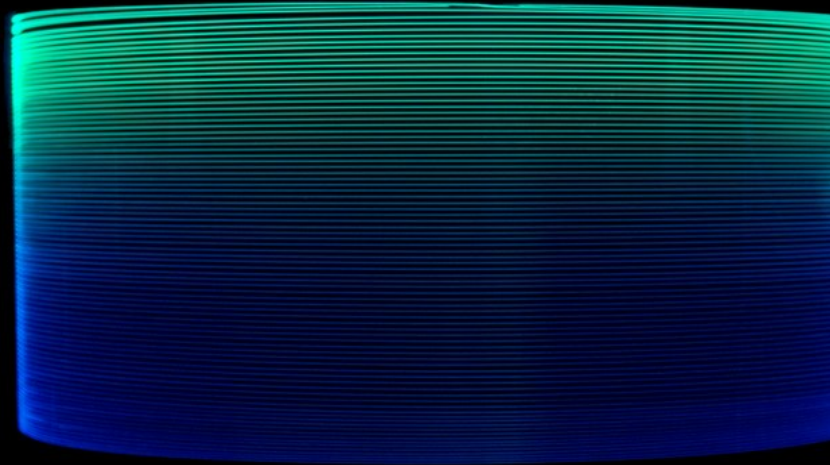


LIEKKI® Yb800-20/400DC fibers are highly doped fibers featuring a large, low-NA core with excellent beam quality, high bend resistivity of the fundamental mode, high pump absorption, very low photodarkening loss and a 400 µm cladding capable of accepting high pump powers. The LIEKKI® Yb800-20/400DC fibers are ideal for high power (kW-class) CW fiber lasers and amplifiers as well as medium peak power pulsed applications.

LIEKKI® Yb800-20/400 fibers are available as double-clad (Yb800-20/400DC) and double-clad polarization maintaining (Yb800-20/400DC-PM) fibers.



Features

- Industry leading fiber deposition process — Direct Nanoparticle Deposition
- *realNA* — most accurate fiber core NA to enable superior predictability of fiber performance and minimal splice loss
- Large, low-NA core for excellent beam quality, high bend resistivity of fundamental mode and low nonlinearity
- Very low photodarkening loss
- Low intrinsic loss for highest efficiency
- Acrylate coating proven to operate up to 120°C and in extreme humidity.
- Matching passive fibers available for minimal splice loss

Applications

- High average power fiber lasers and amplifiers
- kW-class CW fiber lasers and amplifiers
- High beam quality applications
- Medical, industrial and scientific applications
- IR source for frequency doubling

Typical Fiber Specifications

Fiber		LIEKKI® Yb800-20/400DC	LIEKKI® Yb800-20/400DC-PM
Optical	Units		
Peak Cladding Absorption at 976 nm (nominal)	dB/m	(2.2)	(2.2)
Cladding Absorption at 920 nm	dB/m	0.4 ± 0.05	0.5 ± 0.1
Mode Field Diameter ⁽¹⁾ (nominal)	µm	(15.0)	(15.0)
Core Numerical Aperture (<i>realNA</i>)		0.068 ± 0.005	0.068 ± 0.005
Cladding Numerical Aperture, ≥		0.48	0.48
Core background loss at 1200 nm, ≤	dB/km	10	15
Birefringence, ≥	1E-04	-	1.4
Geometrical and mechanical			
Core Diameter	µm	20.0 ± 1.5	20.0 ± 1.5
Core Concentricity Error, ≤	µm	1.2	1.2
Cladding Diameter (flat-to-flat)	µm	400 ± 10	400 ± 10
Cladding Geometry		Octagonal	Round, PANDA
Coating Diameter		520 ± 15	520 ± 15
Coating Material		Dual coated low index acrylate	Dual coated low index acrylate
Proof Test, ≥	kpsi	100	85

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