

LIEKKI™ Er60-xx/xxx

Large Mode Area Erbium Doped Fiber



LIEKKI™ Er60-20/125, Er60-40/140, Er60-60/270 and Er60-70/400 fibers are large mode area erbium doped fibers suitable for medium power amplifiers and lasers. These fibers are ideally suited for compact, eye-safe devices (1.55 - 1.6 μm region). Both 980 nm and 1480 nm pump diodes may be used for pump sources.

LIEKKI™ Er60-xx/xxx fibers are currently only available as double cladding (Er60-20/125DC, Er60-40/140DC, Er60-60/270DC and Er60-70/400DC) fibers.

Applications

- Eye-safe fiber lasers (CW/pulsed) and amplifiers operating in 1.55 - 1.6 μm region
- LIDAR
- Medical
- Sensing

Features

- Good beam quality through low numerical aperture core
- Good efficiency
- Suitable for both 980 nm and 1480 nm pumping
- Pump combiner available for the 20/125 geometry

Typical device specification

		LIEKKI™ Er60-20/125DC	LIEKKI™ Er60-40/140DC	LIEKKI™ Er60-60/270DC	LIEKKI™ Er60-70/400DC
Optical					
Cladding absorption at 1530 nm	dB/m	1.5 \pm 0.3	4.6 \pm 1.0	2.8 \pm 0.6	1.7 \pm 0.4
Cladding absorption at 980 nm	(dB/m)	(0.5)	(1.6)	(1.0)	(0.6)
Core numerical aperture	nm	0.09 \pm 0.01	0.09 \pm 0.01	0.09 \pm 0.01	0.09 \pm 0.01
Geometrical and mechanical					
Core diameter		20 \pm 2	40 \pm 3	60 \pm 5	70 \pm 5
Core concentricity error	μm	< 1.5	< 3	< 2.5	< 2.0
Cladding diameter (flat-to-flat)	μm	125 \pm 2	140 \pm 5	270 \pm 15	400 \pm 15
Cladding geometry		Octagonal	Octagonal	Octagonal	Octagonal
Coating diameter	μm	245 \pm 15	245 \pm 15	350 \pm 15	500 \pm 15
Coating material		Low index acrylate	Low index acrylate	Low index acrylate	Low index acrylate
Cladding numerical aperture		> 0.46	> 0.46	> 0.46	> 0.46
Proof test	kpsi	> 100	> 100	> 100	> 50

Custom configuration also available.

Notice

nLIGHT continually improves its products to provide its customers with outstanding quality and reliability. nLIGHT may make changes to specifications and product descriptions at any time, without notice. In addition, nLIGHT offers a limited warranty to ensure customer satisfaction. For complete details, please contact your nLIGHT sales representative.