LIEKKI®

High Power Beam Delivery Fibers

LIEKKI[®] passive beam delivery fibers are designed and manufactured for the most flexible use in high power applications: The large, all-glass silica core enables beam delivery for up to multi-kW signal powers. Excellent mechanical reliability is ensured by high proof test levels, which opens up the possibility for tight coiling.



Features

- All-glass silica core for multi-kW operation
- High proof test levels to enable tight coiling of the fiber
- Equal outer diameters ensure easy cabling independent of the core size
- Acrylate coating enables fiber applications in extreme environmental conditions: Proven to operate up to 120°C and in extreme humidity.
- Acrylate coating provides flexible removal of cladding light power, e.g. for stripping of back-reflected light from the cladding.

Applications

 Beam delivery for up to multikW power levels

Typical Fiber Specifications

Fiber		LIEKKI [®] Passive- 14/360DC	LIEKKI [®] Passive- 50/360DC	LIEKKI [®] Passive- 100/360DC	LIEKKI [®] Passive- 200/360DC	LIEKKI [®] Passive- 300/360DC
Optical	Units					
Core Numerical Aperture		0.070 ± 0.05	0.23 ± 0.01	0.23 ± 0.01	0.23 ± 0.01	0.23 ± 0.01
Cladding Numerical Aperture, ≥		0.48	0.48	0.48	0.48	0.48
Core background loss at 1200 nm, \leq	dB/km	15	20	20	20	20
Geometrical and mechanical						
Core Diameter	μm	14.0 ± 1.0	50.0 ± 2.5	100.0 ± 6.0	204.0 ± 4.0	300.0 ± 5.0
Core Concentricity Error, ≤	μm	1.5	2.5	5.0	5.0	5.0
Cladding Diameter	μm	360 ± 10	360 ± 10	360 ± 10	360 ± 10	360 ± 10
Cladding Geometry		Round	Round	Round	Round	Round
Coating Diameter		510 ± 25	510 ± 25	510 ± 25	510 ± 25	510 ± 25
Coating Material		Dual coated low index acrylate	Dual coated low index acrylate	Dual coated low index acrylate	Dual coated low index acrylate	Dual coated low index acrylate
Proof Test, ≥	kpsi	85	85	100	100	100