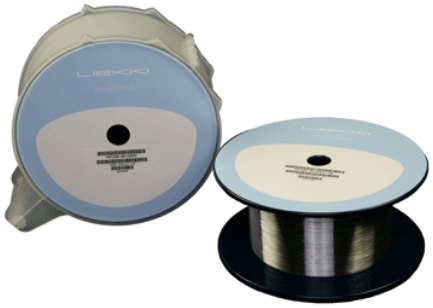
LIEKKI™ Passive Large Mode Area Fibers



LIEKKI™ passive fibers are especially designed and manufactured to match with commercially available large mode area active fibers such as LIEKKI™ Yb1200 product line LMA fibers. The passive fibers are matched to the core diameters and numerical apertures of the active counterparts so that excellent beam quality is maintained throughout the fiber laser or amplifier.

LIEKKI™ passive fibers are available in single cladding, double cladding (DC), single cladding polarization maintaining (PM) and double cladding polarization maintaining configuration. Many of the fibers are also available as a Photosensitive variant for Fiber Bragg Grating manufacturing. Please contact your sales representative for the availability.

Features

- Matching with industry standard active fiber geometries 125, 250, 400 µm
- Glass cladding diameter is designed to “fit-in” octagonal active fibers
- Low signal and pump coupling losses from passive to active fiber
- Round cladding for easy cleaving, splicing and handling
- Single cladding fibers feature a dual coated acrylate coating
- Double cladding fibers feature a low-index fluoroacrylate coating with >0.46 NA

Applications

- Pigtails for fiber lasers and amplifiers
- All-fiber subassemblies
- High brightness power delivery
- Fiber based components for fiber lasers (e.g. pump combiners)

Proven Performance

Typical Device Performance

LIEKKI™ Passive Fiber	Core	±	Cladding	±	Coating	±	NA	±	Cladding NA	Birefringence	Proof Test	Matching Active Fiber
Passive-6/125*	6.0	0.5	125	2	245	15	0.15	0.01			100	Yb1200-6/125DC
Passive-6/125DC*	6.0	0.5	125	2	245	15	0.15	0.01	0.46		100	Yb1200-6/125DC
Passive-6/125DC-PM*	6.0	0.5	125	2	245	15	0.15	0.01	0.46	2.0E-04	100	Yb1200-6/125DC-PM
Passive-10/125	10	1	125	2	245	15	0.08	0.01			100	Yb1200-10/125DC
Passive-10/125DC	10	1	125	2	245	15	0.08	0.01	0.46		100	Yb1200-10/125DC
Passive-10/125-PM	10	1	125	2	245	15	0.08	0.01				Yb1200-10/125DC-PM
Passive-10/125DC-PM	10	1	125	2	245	15	0.08	0.01	0.46	1.4E-04	100	Yb1200-10/125DC-PM
Passive-12/125	12.5	1	125	2	245	15	0.08	0.01			100	Yb1200-12/125DC
Passive-12/125DC	12.5	1	125	2	245	15	0.08	0.01	0.46		100	Yb1200-12/125DC
Passive-12/125DC-PM	12.5	1	125	2	245	15	0.08	0.01	0.46	1.4E-03	100	Yb1200-12/125DC-PM
Passive-12/125-PM	12.5	1	125	2	245	15	0.08	0.01		1.4E-03	100	Yb1200-12/125DC-PM
Passive-20/125	20	2	125	2	245	15	0.08	0.01			100	Yb1200-20/125DC
Passive-20/125DC	20	2	125	2	245	15	0.08	0.01	0.46		100	Yb1200-20/125DC
Passive-20/125-PM	20	2	125	2	245	15	0.08	0.01		8.0E-05	100	Yb1200-20/125DC-PM
Passive-20/125DC-PM	20	2	125	2	245	15	0.08	0.01	0.46	8.0E-05	100	Yb1200-20/125DC-PM
Passive-20/400	20	2	400	8	500	15	0.07	0.01			50	Yb1200-20/400DC
Passive-20/400DC	20	2	400	8	500	15	0.07	0.01	0.46		50	Yb1200-20/400DC
Passive-20/400-PM	20	2	400	8	500	15	0.07	0.01		1.6E-04	50	Yb1200-20/400DC-PM

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LIEKKI™ Passive Fiber	Core	±	Cladding	±	Coating	±	NA	±	Cladding NA	Birefringence	Proof Test	Matching Active Fiber
Passive-20/400DC-PM	20	2	400	8	500	15	0.07	0.01	0.46	1.6E-04	50	Yb1200-20/400DC-PM
Passive-20/400/460DC, All-glass	20	2	400	8	580	15	0.07	0.01	0.22		50	
Passive-25/250	25	2.5	250	5	350	15	0.07	0.01			100	Yb1200-25/250DC
Passive-25/250DC	25	2.5	250	5	350	15	0.07	0.01	0.46		100	Yb1200-25/250DC
Passive-25/250DC-PM	25	2.5	250	5	350	15	0.07	0.01	0.46	1.6E-04	100	Yb1200-25/250DC-PM
Passive-30/250	30	3	250	5	350	15	0.07	0.01			100	Yb1200-30/250DC
Passive-30/250DC	30	3	250	5	350	15	0.07	0.01	0.46		100	Yb1200-30/250DC
Passive-30/250DC-PM	30	3	250	5	350	15	0.07	0.01	0.46	1.6E-04	100	Yb1200-30/250DC-PM
Passive-125DC			125	3	250	15	0.46		0.46		100	
Passive-105/125, 0.15NA	105	3	125	3	250	15	0.16	0.01			100	
Passive-105/125, 0.22NA	105	3	125	3	250	15	0.23	0.01			100	
Passive-250DC			250	5	350	15	0.46		0.46		100	
Passive-400DC			400	8	500	15	0.46		0.46		50	
Passive-200/220, 0.15NA	200	4	220	5	350	15	0.16	0.01			100	
Passive-200/220, 0.22NA	200	4	220	5	350	15	0.23	0.01			100	
Passive-200/220DC, 0.22NA	200	4	220	5	350	15	0.23	0.01	0.46		100	
Passive-400/480, 0.22NA	400	8	480	9	750	30	0.23	0.01			70	

* Core diameter specification refers to the mode field diameter.