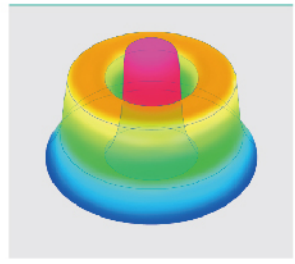
Ring Fiber

Everfoton's Ring Fiber is designed to meet the high power output requirements of ring lasers and variable beam profile lasers. Different from the single peak Gaussian distribution of traditional lasers, the beam is shaped through the ring fiber to form a Gaussian distribution laser beam in the core area and a ring laser beam around it. The parallel use of the two beams can effectively reduce the spatter of high-power laser welding.



Characteristics

- Excellent circular concentricity
- Independently adjustable power between the core and ring regions
- All-fiber solution to improve system reliability
- Customized waveguide structure and size

Applications

- High power lasers
- Welding of new energy batteries, auto parts and electronic components
- Domestic substitution of imported products

Specifications-1

Fiber Type	GDF_FC 14/100/120/200 -0.07	GDF_MC 14/200 -0.07	GDF_MC 14/480 -0.07	GDF_MC 20/200 -0.065	GDF_MC 25/200 -0.11
Part No.	DG1119-A	DG1119-B	DG1119-E	DG1119-C	DG1119-D
Optical Properties					
Operating Wavelength (nm)			800~1600		
Core NA	0.07±0.005	0.07±0.005	0.07±0.005	0.065±0.005	0.110±0.005
First Cladding NA	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02
Third Cladding NA	-	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02
Cladding NA	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46
Geometrical Properties					
Core Diameter (μm)	14.0±2.0	14.5±1.5	14.5±2.0	20.0±2.0	25.0±2.0
First Cladding Diameter (μm)	100.0±4.0	34.0±3.0	34.0±3.0	40.0±4.0	35.0±3.0
Second Cladding Diameter (μm)	120.0±4.0	48.0±5.0	50.0±4.0	54.0±5.0	50.0±3.0
Third Cladding Diameter (μm)	200.0±4.0	102.0±5.0	400.0±5.0	120.0±5.0	100.0±4.0
Fourth Cladding Diameter (μm)	-	125.0±5.0	455.0±8.0	150.0±5.0	120.0±4.0
Fifth Cladding Diameter (μm)	-	200.0±5.0	480.0±10.0	200.0±5.0	200.0±4.0
Coating Diameter (μm)	320.0±15.0	300.0±15.0	600.0±20.0	300.0±15.0	330.0±15.0
Material Properties					
Proof Test (kpsi)	≥100	≥100	≥100	≥100	≥100
Inner Coating Material	Low RefractiveIndex Coating				
Outer Coating Material	Acrylic Resin				

Specifications-2

Fiber Type	SI 34/48 -22/102/120 -22/360/650	SI 34/50 -22/400/455 -22/480/600	SI 50/70 -22/150/170 -22/360/560	SI 50/80 -22/230/260 -22/360/540	SI 50/70 -22/300/360 -22/460/650
Part No.	SI2117-C	SI2117-E	SI2117-F	SI2117-G	SI2117-I
Optical Properties					
Operating Wavelength (nm)	800~1600				
Core NA	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02
Second Cladding NA	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02
Cladding NA	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46
Geometrical Properties					
Core Diameter (μm)	34.0±2.0	34.0±2.0	50.0±2.0	50.0±2.0	50.0±2.0
First Cladding Diameter (μm)	48.0±4.0	50.0±4.0	70.0±4.0	80.0±5.0	70.0±4.0
Second Cladding Diameter (μm)	102.0±5.0	400.0±5.0	150.0±5.0	230.0±5.0	300.0±8.0
Third Cladding Diameter (μm)	120.0±5.0	455.0±8.0	170.0±5.0	260.0±5.0	360.0±8.0
Fourth Cladding Diameter (μm)	360.0±5.0	480.0±10.0	360.0±5.0	360.0±7.5	460.0±8.0
Coating Diameter (μm)	650.0±20.0	600.0±20.0	560.0±20.0	540.0±25.0	650.0±20.0
Material Properties					
Proof Test (kpsi)	≥100	≥100	≥100	≥100	≥100
Inner Coating Material	Low RefractiveIndex Coating				
Outer Coating Material	Acrylic Resin				

Specifications-3

Fiber Type	SI 50/70 -22/400/440 -22/550/750	SI 50/70 -22/600/630 -22/660/820	SI 100/130 -22/300/360 -22/460/650	SI 100/130 -22/600/670 -22/750/950
Part No.	SI2117-J	SI2117-H	SI2117-A	SI2117-B
Optical Properties				
Operating Wavelength (nm)	800~1600			
Core NA	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02
Second Cladding NA	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02
Cladding NA	≥0.46	≥0.46	≥0.46	≥0.46
Geometrical Properties				
Core Diameter (μm)	50.0±2.0	50.0±3.0	100.0±2.0	100.0±5.0
First Cladding Diameter (μm)	70.0±5.0	70.0±4.0	130.0±4.0	130.0±8.0
Second Cladding Diameter (μm)	400.0±8.0	600.0±8.0	300.0±5.0	600.0±10.0
Third Cladding Diameter (μm)	440.0±8.0	630.0±8.0	360.0±5.0	670.0±15.0
Fourth Cladding Diameter (μm)	550.0±8.0	660.0±10.0	460.0±5.0	750.0±20.0
Coating Diameter (μm)	750.0±25.0	820.0±40.0	650.0±20.0	950.0±25.0
Material Properties				
Proof Test (kpsi)	≥100	≥100	≥100	≥85
Inner Coating Material	Low RefractiveIndex Coating			
Outer Coating Material	Acrylic Resin			