

Ring Fiber

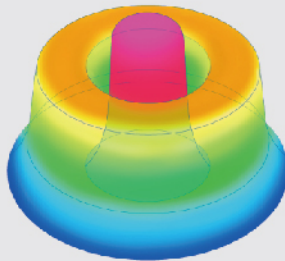
Everfoton New Generation Ring Fiber leverages superior optical design and independently controlled process technology to deliver key features such as independently adjustable core and ring power, high isolation, and controllable consistency. It effectively reduces welding spatter and improves precision processing quality, meeting the demands of ring laser applications in fields such as new energy, additive manufacturing, and data centers.

Characteristics

- Independently adjustable core and ring power output
- High isolation between core and ring
- Excellent ring/core concentricity
- Customizable complex waveguide structure

Applications

- New energy power battery welding
- Additive manufacturing
- Data center liquid cooling components
- High-reflective material welding



Specifications-1

Fiber Type	GDF_FC 14/100/120/200 -0.07/0.12	GDF_FC 14/100/120/200 -0.07/0.15	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-F	DG1119-G	DG1119-A	DG1119-B	DG1119-E	DG1119-C	DG1119-D
Optical Properties							
Operating Wavelength (nm)	500~1200						
Core NA	0.07±0.005	0.07±0.005	0.07±0.005	0.07±0.005	0.07±0.005	0.065±0.005	0.110±0.005
First Cladding NA	0.12±0.02	0.15±0.02	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	≥0.46	≥0.46
Geometrical Properties							
Core Diameter (μm)	14.0±2.0	14.0±2.0	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	100.0±4.0	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	120.0±4.0	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	200.0±4.0	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	320.0±15.0	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	≥100	≥100
Inner Coating Material	Low RefractiveIndex Coating						
Outer Coating Material	Acrylate						

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 -14/300/330 -14/360/550	SI 50/70 -22/300/360 -22/460/650
Part No.	SI2117-C	SI2117-E	SI2117-F	SI2117-G	SI2117-K	SI2117-I
Optical Properties						
Operating Wavelength (nm)	500~1200					
Core NA	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02	0.14±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	0.14±0.02	0.22±0.02
Cladding NA	≥0.46	≥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±5.0	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±6.0	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±10.0	300.0±8.0
Third Cladding Diameter (μm)	120.0±5.0	455.0±8.0	170.0±5.0	260.0±5.0	330.0±10.0	360.0±8.0
Fourth Cladding Diameter (μm)	360.0±5.0	480.0±10.0	360.0±5.0	360.0±7.5	360.0±10.0	460.0±8.0
Coating Diameter (μm)	650.0±20.0	600.0±20.0	560.0±20.0	540.0±25.0	550.0±20.0	650.0±20.0
Material Properties						
Proof Test (kpsi)	≥100	≥100	≥100	≥100	≥100	≥100
Inner Coating Material	Low RefractiveIndex Coating					
Outer Coating Material	Acrylate					

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)	500~1200			
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	Acrylate			

Specifications-4(Red and Blue Integration)

Fiber Type	GDF_FC 22/200/220/255 -0.065/550E	GDF_FC 26/300/330/380 -0.077/700E	GDF_FC 50/300/330/380 -0.11/700E
Part No.	DG2140-A	DG2140-B	DG2140-C
Optical Properties			
Operating Wavelength (nm)	500~1200		
Core NA	0.067±0.005	0.077±0.005	0.11±0.01
First Cladding NA	0.22±0.02	0.22±0.02	0.22±0.02
Core Attenuation@1080nm (dB/km)	≤10.0	≤15.0	≤15.0
Cladding Attenuation@450nm (dB/km)	≤35.0	≤50.0	≤50.0
Geometrical Properties			
Core Diameter (μm)	22.0±2.0	26.0±1.0	50.0±1.5
First Cladding Diameter (μm)	200.0±8.0	300.0±8.0	300.0±8.0
Secona Cladding Uiameter (μm)	220.0±8.0	330.0±8.0	330.0±8.0
Third Cladding Diamneter (μm)	255.0±8.0	380.0±8.0	380.0±8.0
Coating Diameter (μm)	350.0±15.0	500.0±20.0	500.0±20.0
ETFE Diameter (μm)	550.0±30.0	700.0±30.0	700.0±30.0
Core/Cladding Concentricity(μm)	≤2.5	≤2.5	≤2.5
Core Non-circularity (%)	≤3.0	≤3.0	≤3.0
Proof Test (kpsi)	≥100	≥100	≥100