

Passive Fiber

Everfoton's double/single-cladding Passive Matched Fiber is used for the processing, assembly, and connection of optical devices related to fiber lasers. This series of optical fiber can accurately match the double-cladding active fiber and significantly improve the splicing efficiency with the double-cladding active fiber. The multi-mode fiber with large core and high NA can be used for pumping source output and high power output.

Characteristics

- Precise geometry control
- Low NA to ensure single-mode output
- Lower splicing loss

Applications

- Pulse / CW fiber laser / amplifier
- Fiber combiner
- Pigtail output
- FBG

Specifications-1

Fiber Type	GDF_SC 10/125 -0.08	GDF_DC 10/130- 0.08	GDF_SC 20/130- 0.08	GDF_DC 20/130- 0.08	GDF_DC 14/250- 0.07	GDF_DC 25/250- 0.085	GDF_DC 25/250- 0.11
Part No.	SG1010-C	DG1110-A	SG1011-A	DG1111-A	DG1110-C	DG1112-A	DG1112-D
Optical Properties							
Core NA	0.08±0.005	0.08±0.005	0.08±0.005	0.08±0.005	0.070±0.005	0.085±0.005	0.11±0.01
Cladding NA	-	≥0.46	-	≥0.46	≥0.46	≥0.46	≥0.46
Core Attenuation @1300nm (dB/km)	≤40.0	≤40.0	≤40.0	≤40.0	≤45.0	≤45.0	≤45.0
Core Attenuation @1200nm (dB/km)	≤20.0	≤20.0	≤20.0	≤20.0	≤20.0	≤45.0	≤30.0
Cladding Attenuation @1095nm (dB/km)	-	≤15.0	-	≤15.0	≤15.0	≤15.0	≤15.0
Geometrical/Mechanical Properties							
Core Diameter (μm)	11.0±1.0	11.0±1.0	20.0±1.5	20.0±1.5	14.0±1.5	25.0±1.5	25.0±1.5
Cladding Diameter (μm)	125.0±1.0	130.0±1.0	130.0±2	130.0±1.0	247.0±3.0	247.0±3.0	247.0±3.0
Coating Diameter (μm)	245.0±10.0	245.0±10.0	245.0±10.0	245.0±10.0	395.0±15.0	395.0±15.0	395.0±15.0
Core/Cladding Concentricity (μm)	≤0.7	≤0.7	≤0.7	≤0.7	≤2.0	≤2.0	≤2.0
Cladding Non-circularity (%)	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5
Proof Test (kpsi)	≥100	≥100	≥100	≥100	≥100	≥100	≥100

* Single-cladding fiber products available on request

Specifications-2

Fiber Type	GDF_SC 30/250- 0.065	GDF_DC 30/250- 0.065	GDF_DC 30/250- 0.075	GDF_DC 34/250- 0.11	GDF_DC 34/90- 0.095	GDF_DC 34/250- 0.075
Part No.	SG1011-C	DG1113-A	DG1113-E	DG1113-C	DG1113-G	DG1113-H
Optical Properties						
Core NA	0.075±0.005	0.065±0.005	0.075±0.005	0.11±0.01	0.095±0.005	0.075±0.005
Cladding NA	-	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46
Core Attenuation @1300nm (dB/km)	≤40.0	≤45.0	≤45.0	≤45.0	≤10.0	≤15.0
Core Attenuation @1200nm (dB/km)	≤10.0	≤30.0	≤30.0	≤30.0	≤10.0	≤20.0
Cladding Attenuation @1095nm (dB/km)	-	≤15.0	≤15.0	≤15.0	≤10.0	≤15.0
Geometrical/Mechanical Properties						
Core Diameter (µm)	30.0±1.5	30.0±1.5	30.0±1.5	35.0±1.5	35.0±1.5	34.0±1.5
Cladding Diameter (µm)	247.0±3.0	247.0±3.0	247.0±3.0	247.0±3.0	90.0±1.5	247.0±3.0
Coating Diameter (µm)	395.0±15.0	395.0±15.0	395.0±15.0	395.0±15.0	190.0±15.0	395.0±15.0
Core/Cladding Concentricity (µm)	≤2.0	≤2.0	≤2.0	≤2.0	≤0.5	≤2.0
Cladding Non-circularity (%)	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5
Proof Test (kpsi)	≥100	≥100	≥100	≥100	≥100	≥100

* Single-cladding fiber products available on request

Specifications-3

Fiber Type	GDF_DC 20/400 -0.065	GDF_DC 25/400 -0.065	GDF_DC 25/400 -0.11	GDF_DC 30/400 -0.06	GDF_DC 50/400 -0.11	GDF_DC 100/400 -0.12	GDF_DC 200/360 -0.12	GDF_DC 50/400 -0.12	GDF_DC 200/360 -0.12
Part No.	DG1111-C	DG1112-B	DG1112-C	DG1113-B	DG1115-B	DG1116-B	DG1117-A	DG1115-E	DG1117-A
Optical Properties									
Core NA	0.065±0.005	0.065±0.005	0.11±0.005	0.06±0.005	0.11±0.01	0.12±0.005	0.12±0.01	0.12±0.005	0.12±0.005
Cladding NA	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46
Core Attenuation @1300nm (dB/km)	≤20.0	≤20.0	≤12.0	≤20.0	≤20.0	-	≤20.0	≤40.0	≤40.0
Core Attenuation @1200nm (dB/km)	≤15.0	≤15.0	≤8.0	≤15.0	≤15.0	-	≤25.0	≤20.0	≤20.0
Cladding Attenuation @1095nm (dB/km)	≤15.0	≤15.0	≤15.0	≤15.0	≤15.0	≤25.0	≤15.0	≤15.0	≤15.0
Geometrical/Mechanical Properties									
Core Diameter (µm)	20.0±1.5	25.0±1.5	25.0±1.5	30.0±2.0	50.0±1.5	100.0±2.0	200.0±7.0	50.0±2.0	200.0±2.0
Cladding Diameter (µm)	395.0±5.0	395.0±5.0	395.0±5.0	400.0±5.0	395.0±5.0	400.0±5.0	360.0±10.0	395.0±5.0	360.0±3.0
Coating Diameter (µm)	550.0±15.0	550.0±15.0	550.0±15.0	550.0±15.0	550.0±15.0	550.0±15.0	540.0±20.0	550.0±15.0	540.0±15.0
Core/Cladding Concentricity (µm)	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤4.0	≤2.0	≤2.0
Cladding Non-circularity (%)	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5	≤1.0	≤0.5	≤0.5
Proof Test (kpsi)	≥100	≥100	≥100	≥100	≥100	≥100	≥100	≥100	≥100

* Single-cladding fiber products available on request

Specifications-4

Fiber Type	SI 105/ 125-22/ 250 (PSC)	SI 135/ 155-22/ 320(PSC)	SI 135/ 155-22/ 320 (DC)	SI 200/ 220-22/ 320(PSC)	SI 200/ 220-22/ 350(DC)	SI 220/ 242-22/ 330(PSC)	SI 220/ 242-22/ 330(DC)	SI 600/ 660-22/ 960(DC)	SI 800/ 880-22/ 1050(DC)	SI1000/ 1100-22/ 1350(DC)
Part No.	SI2014-N	SI2014-O	SI2110-C	SI2014-A	SI2110-D	SI2015-B	SI2111-A	SI2114-B	SI2114-C	SI2114-H
Optical Properties										
Core NA	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02	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	≥0.46
Core Attenuation @1300nm (dB/km)	≤8.0	≤40.0	≤20.0	-	≤20.0	-	-	-	-	-
Core Attenuation @1200nm (dB/km)	-	≤20.0	≤15.0	-	≤15.0	-	-	-	-	-
Cladding Attenuation @1095nm (dB/km)	-	-	≤15.0	-	≤15.0	-	≤15.0	-	-	-
Geometrical/Mechanical Properties										
Core Diameter (μm)	105.0±3.0	135.0±1.5	135.0±1.5	200.0±4.0	200.0±4.0	220.0±5.0	220.0±4.0	600.0±8.0	800.0±10.0	1000.0±20.0
Cladding Diameter (μm)	125.0±2.0	155.0±1.0	155.0±1.0	220.0±3.0	220.0±3.0	242.0±3.0	242.0±3.0	660.0±10.0	880.0±10.0	1100.0±22.0
Coating Diameter (μm)	250.0±10.0	320.0±10.0	320.0±20.0	320.0±15.0	350.0±20.0	330.0±20.0	330.0±25.0	960.0±40.0	1050.0±40.0	1350.0±50.0
Core/Cladding Concentricity (μm)	≤3.0	≤2.0	≤3.0	≤3.0	≤3.0	≤3.0	≤3.0	≤7.0	≤10.0	≤10.0
Cladding Non-circularity (%)	≤2.0	≤0.5	≤0.5	≤2.0	≤0.5	≤2.0	≤0.5	≤0.5	≤0.5	≤1.0
Proof Test (kpsi)	≥100	≥100	≥100	≥100	≥100	≥100	≥100	≥100	≥100	≥70
Inner Coating Material	Acrylic Resin	Acrylic Resin	Low Refractive Index Coating	Acrylic Resin	Low Refractive Index Coating	Acrylic Resin	Low Refractive Index Coating			
Outer Coating Material	Acrylic Resin									

Specifications-5

Fiber Type	SI 50/70/360- 22/540 (DC)	SI 70/90/360- 22/540 (DC)	SI 100/120/360- 15/540(DC)	SI 100/120/360- 22/540 (DC)	SI 150/170/360- 15/540(DC)	SI 150/170/360- 22/540 (DC)	SI 200/220/360- 22/540 (DC)
Part No.	SI2113-A	SI2113-B	SI2113-F	SI2113-C	SI2113-G	SI2113-D	SI2113-E
Optical Properties							
Core NA	0.22±0.01	0.22±0.01	0.15±0.01	0.22±0.01	0.15±0.01	0.22±0.01	0.22±0.01
Cladding NA	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46
Geometrical/Mechanical Properties							
Core Diameter (μm)	52.0±2.0	72.0±2.0	102.0±2.0	102.0±2.0	152.0±2.0	152.0±2.0	204.0±4.0
Core/Cladding Concentricity (μm)	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0
Core Non-circularity (%)	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0
Proof Test (kpsi)	≥100	≥100	≥100	≥100	≥100	≥100	≥100
Inner Cladding Diameter (μm)	73.0±3.0	93.0±3.0	123.0±3.0	123.5±3.5	173.0±3.0	173.0±3.0	226.0±6.0
Outer Cladding Diameter (μm)	367.5±7.5	367.5±7.5	365.5±5.0	367.5±7.5	367.5±7.5	367.5±7.5	367.5±7.5
Coating Diameter (μm)	540.0±15.0	540.0±15.0	540.0±15.0	540.0±15.0	540.0±15.0	540.0±15.0	540.0±15.0
Inner Coating Material	Low Refractive Index Coating						
Outer Coating Material	Acrylic Resin						