

Tapered Fiber

Everfoton relies on leading research and development strength and advanced process manufacturing level, from the Tapered Fiber structure design to the coating mold, the improvement and the improvement of wire drawing feed and wire diameter and speed control system realize the stable output of tapered fiber with a packet change ratio of more than 1.5, And successfully launched tapered fiber products in the market to meet customer customized applications.

Characteristics

- Uniform core/cladding ratio scaling
- Achievable taper ratio: 1.1x to 1.5x
- Controllable taper zone dimension change rate
- Excellent beam quality
- High nonlinear threshold

Applications

- Ultra-High Power Fiber Laser
- Ultra-High Brightness Fiber Laser
- Long-Distance, Large-Format Laser Processing
- High-Brightness Semiconductor Pump Output

Single Stacker



Double Stacker



Specifications-1

Fiber Type	GDF 20/250-1.4 -0.065/400(TF)		GDF 20/250-1.4 -0.074/400(TF)	GDF 20/400-1.4 -0.065/550(TF)
Part No.	DG1111-H	DG1111-I	DG1111-J	
Optical Properties				
Operating Wavelength (nm)	800~1200			
Core NA	0.065±0.005	0.074±0.005	0.065±0.005	
Cladding NA	≥0.46	≥0.46	≥0.46	
Geometrical/Mechanical Properties				
Coarse area Core Diameter (μm)	20.0±2.0	20.0±2.0	20.0±1.5	
Coarse area Cladding Diameter (μm)	250.0±10.0	250.0±10.0	400.0±5.0	
Slender area Core Diameter (μm)	14.0±2.0	14.0±2.0	14.0±2.0	
Slender area Cladding Diameter (μm)	180.0±8.0	180.0±8.0	280.0±7.0	
Coarse area Coating Diameter (μm)	400.0±15.0	400.0±15.0	540.0±20.0	
Cone length (m)	≤5.0	≤5.0	≤5.0	
Coarse area length (m)	30.0±1.0 (customized)	30±2.0 (customized)	30.0 (customized)	
Slender area length (m)	5.0±1.0	10.0±1.0	10.0±1.0	
Inner Coating Type	Low RefractiveIndex Coating			
Outer Coating Type	Acrylate			
Operating temperature (°C)	-40~+85	-40~+85	-40~+85	

Specifications-2

Fiber Type	SI 150/170/ 360-1.25 -0.22/440(TF)	SI 150/180/ 550-1.5 -0.22/650(TF)	SI 180/210/ 540-1.5 -0.22/640(TF)	SI 200/230/ 480-1.33- 0.22/600(TF)	SI 300/330/ 540-1.5- 0.22/650(TF)	SI 450/490/ 540-1.5 -0.22/650(TF)
Part No.	SI2119-A	SI2119-B	SI2119-C	SI2119-D	SI2119-E	SI2119-F
Optical Properties						
Operating Wavelength (nm)	800~1600					
Core NA	0.22±0.01	0.15±0.01	0.22±0.01	0.22±0.01	0.22±0.01	0.22±0.01
Cladding NA	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46
Core Attenuation @1080nm (dB/km)	≤5.0	≤5.0	≤5.0	≤5.0	≤5.0	≤5.0
Geometrical/Mechanical Properties						
Coarse area Core Diameter (μm)	150.0±5.0	152.0±6.0	180.0±6.0	200.0±8.0	300.0±6.0	450.0±6.0
Coarse area Inner Cladding Diameter (μm)	170.0±8.0	184.0±6.0	210.0±8.0	230.0±10.0	330.0±6.0	490.0±6.0
Coarse area Cladding Diameter (μm)	360.0±12.0	550.0±8.0	540.0±10.0	480.0±15.0	540.0±8.0	540.0±8.0
Slender area Core Diameter (μm)	120.0±3.0	102.0±6.0	120.0±5.0	150.0±5.0	200.0±6.0	300.0±6.0
Slender area Inner Cladding Diameter (μm)	136.0±5.0	122.0±8.0	140.0±8.0	170.0±8.0	220.0±8.0	330.0±8.0
Slender area Cladding Diameter (μm)	288.0±10.0	360.0±10.0	360.0±10.0	360.0±10.0	360.0±10.0	360.0±10.0
Coarse area Coating Diameter (μm)	440.0±15.0	650.0±20.0	640.0±20.0	600.0±20.0	650.0±20.0	650.0±20.0
Cone length (m)	≤5.0	≤5.0	≤5.0	≤5.0	≤5.0	≤5.0
Coarse area length (m)	20.0±2.0 (customized)				25.0±2.0 (customized)	
Slender area length (m)	≥5.0 (customized)				2.0~3.0 (customized)	
Concentricity	≤3.0	≤3.0	≤3.0	≤3.0	≤3.0	≤3.0
Non-circularity (%)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Inner Coating Type	Low RefractiveIndex Coating					
Outer Coating Type	Acrylate					
Operating temperature (°C)	-40~+85					