

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

- Improve coupling efficiency
- Beam shaping and beam expanding
- The damage threshold and beam quality are improved

Applications

- Fiber laser
- Fiber devices
- Fiber sensing
- Laser processing

Specifications-1

Fiber Type	SI 20/250-6.5/400 (TF_DC)	SI 20/250-7.4/400 (TF_DC)	SI 20/400-6.5/550 (TF_DC)
Part No.	SI2119-G	SI2119-H	SI2119-I
Optical Properties			
Operating Wavelength (nm)	800~1600		
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	Acrylic Resin		
Operating temperature (°C)	-40~+85	-40~+85	-40~+85

Specifications-2

Fiber Type	SI150/170/ 360-22/440 (TF_DC)	SI150/180/ 550-15/640 (TF_DC)	SI180/210/ 540-22/640 (TF_DC)	SI200/230/ 480-22/600 (TF_DC)	SI300/330/ 540-22/650 (TF_DC)	SI450/490/ 540-22/650 (TF_DC)
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	Acrylic Resin					
Operating temperature (°C)	-40~+85					