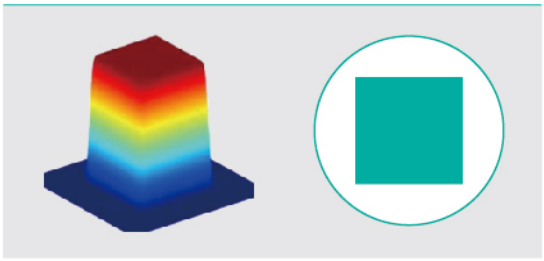
Square Core Fiber

Everfoton's Square Core Fiber utilizes an innovative structural design and advanced processing techniques to precisely control the beam propagation mode. It enables the direct output of high-uniformity non-circular beam profiles such as square and rectangular shapes, while maintaining high transmission efficiency and excellent compatibility with conventional fibers. This fiber significantly reduces the integration difficulty and complexity of spatial beam shaping systems, enabling efficient integration into flexible links for applications in laser cleaning, illumination, heating, measurement, medical and other fields.



Characteristics

- Tight geometric tolerances and precise chamfer control
- Excellent geometry and consistency
- Uniform power/energy distribution across core area
- Customizable beam profiles

Applications

- Laser cleaning
- Laser illumination
- Laser heating
- Laser measurement
- Medical
- Any applications requiring flat-top beam transmission over a flexible link

Specifications

Fiber Type	SI 50*50/250 -12/400(DC)	SI 100*100/400 -12/540(DC)	SI 100*100/400 -22/540(DC)	SI 200*200/400 -22/540(DC)	SI 300*300/500 -22/620(DC)	SI 400*400/660 -22/840(DC)
Part No.	SI2118-F	SI2118-D	SI2118-G	SI2118-A	SI2118-H	SI2118-E
Optical Properties						
Operating Wavelength (nm)	500~1200					
Core NA	0.12±0.02	0.12±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
Cladding Attenuation @1095nm (dB/km)	≤15.0	≤15.0	≤15.0	≤15.0	≤15.0	≤15.0
Geometrical Properties						
Side Length of Core (μm)	50.0±3.0	100.0±5.0	100.0±5.0	200.0±6.0	305.0 ± 6.0	400.0±8.0
Cladding Diameter (μm)	250.0±5.0	400.0±10.0	400.0±10.0	390.0±10.0	500.0 ± 10.0	660.0±10.0
Coating Diameter (μm)	400.0±15.0	540.0±20.0	540.0±20.0	540.0±20.0	620.0±20.0	840.0±20.0
Material Properties						
Proof Test (kpsi)	≥100	≥100	≥100	≥100	≥100	≥100
Inner Coating Material	Low RefractiveIndex Coating					
Outer Coating Material	Acrylate					