

Homogenized Fiber

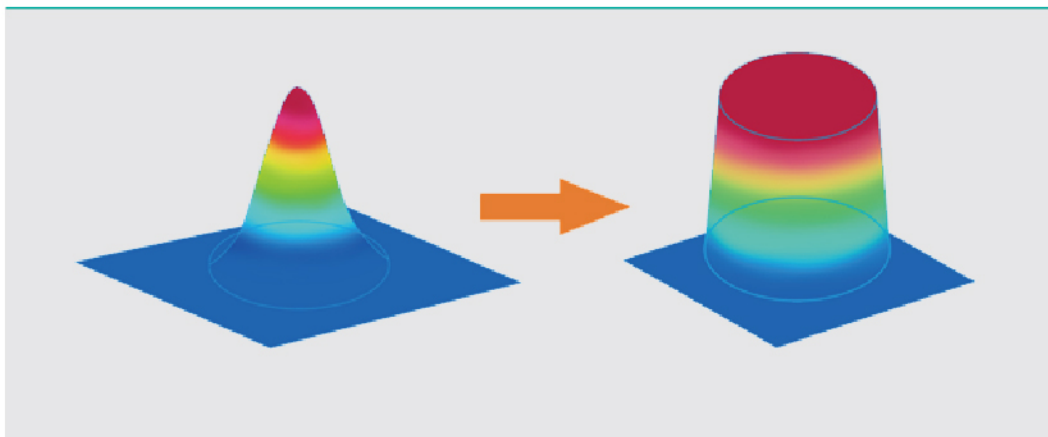
The special homogenized fiber technology of Everfoton adopts step profile fiber design to ensure a high degree of compatibility with traditional fiber. The specially design can adjust the mode excitation in the fiber core to convert the input beam into a uniform flat-top beam profile while maintaining efficient optical propagation and a ultra-low insertion loss. Homogenized fiber can be efficiently integrated with existing optical systems, and used in laser cladding, laser cleaning, laser welding, uniform illumination, spectroscopy, power supply, medical and other fields.

Characteristics

- Flat-top beam profile
- Beam uniformity-reduce hot spots
- Ultra-low insertion loss
- Effective luminance conservation
- Excellent compatibility-compatible with most optical fiber interconnection systems
- Products range from low-power to high-power

Applications

- Laser beam transmission
- Flat-top beam demands in material processing applications
- All-fiber solutions of flat-top beam shaping
- Laser-assisted surgery



Specifications-1

Fiber Type	YH 200/220-22/320		YH 400/440-26/730	YH 600/660-26/960
Part No.	YH2010-E		YH2010-B	YH2010-D
Optical Properties				
Inner Cladding NA	0.22 ± 0.02		0.26 ± 0.02	0.26 ± 0.02
Geometrical Properties				
Core Diameter (µm)	200.0 ± 4.0		400 ± 10	600 ± 30
Cladding Diameter (µm)	220.0 ± 3.0		440 ± 10	660 ± 30
Coating Diameter (µm)	320.0 ± 15.0		730 ± 30	960 ± 50
Core/Cladding Concentricity (µm)	≤ 2.0		≤ 3	≤ 8
Cladding Non-circularity (%)	≤ 1.0		≤ 2	≤ 2
Proof Test (kpsi)	≥ 100		≥ 100	≥ 100
Coating Material	Acrylate		Acrylate	Acrylate

Specifications-2

Fiber Type	YH 50/70/360-22/540(DC)		YH 100/120/360-22/540(DC)
Part No.	YH2110-B		YH 2110-A
Optical Properties			
Inner Cladding NA	0.22 ± 0.02		0.22 ± 0.02
Outer Cladding NA	≥ 0.46		≥ 0.46
Geometrical Properties			
Core Diameter (µm)	52.0 ± 3.5		102.0 ± 3.0
Inner Cladding Diameter (µm)	73.0 ± 4.0		123.0 ± 4.0
Outer Cladding Diameter (µm)	365.0 ± 5.0		365.0 ± 5.0
Coating Diameter (µm)	540.0 ± 15.0		540.0 ± 15.0
Core/Cladding Concentricity (µm)	≤ 2.0		≤ 2.0
Cladding Non-circularity (%)	≤ 1.0		≤ 1.0
Proof Test (kpsi)	≥ 100		≥ 100
Inner Coating Material	Low RefractiveIndex Coating		Low RefractiveIndex Coating
Outer Coating Material	Acrylate		Acrylate