

Homogenized Fiber

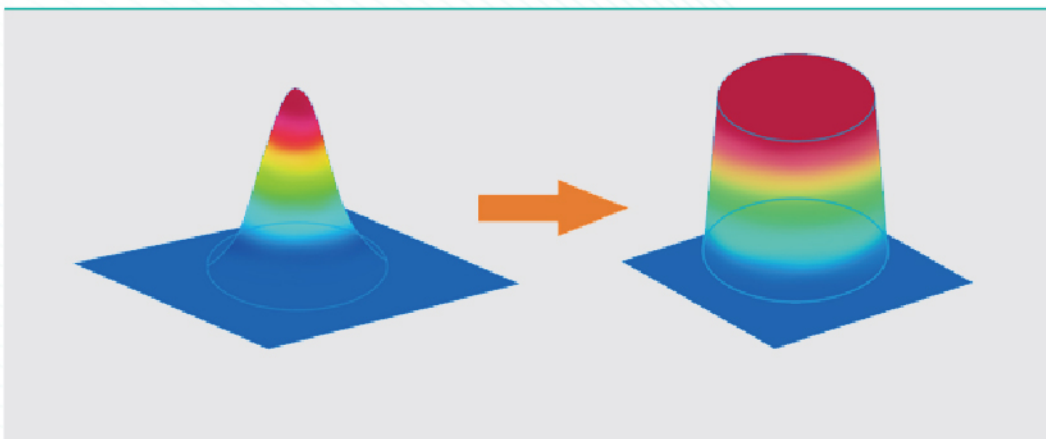
Everfoton's Homogenizing Fiber regulates the beam mode through a specialized waveguide structure design, enabling direct output of flat-top beams with high homogeneity and excellent top-flatness. It also features ultra-low loss and high compatibility with conventional fibers. This fiber significantly reduces the system integration difficulty and complexity of spatial beam shaping, making it widely applicable in laser applications across industrial processing, new energy, 3C electronics, display, medical, and scientific research fields.

Characteristics

- Flat-Top Beam Profile
- High Edge Steepness
- High Top Flatness
- Ultra-Low Loss
- Excellent Compatibility
- Controllable Beam Quality

Applications

- Traditional cutting & welding
- Laser cleaning
- Laser cladding
- Laser display
- Laser measurement
- Any application requiring flat-top beam transmission over a flexible link



Specifications-1 (Single Cladding)

Fiber Type	YH105/125 -22/250	YH 200/220 -22/320	YH 400/440 -22/730	YH 400/440 -26/730	YH 600/660 -22/960	YH 600/660 -26/960
Part No.	YH2010-E	YH2010-G	YH2010-F	YH2010-B	YH2010-H	YH2010-D
Optical Properties						
Operating Wavelength (nm)	500-1200					
Cladding NA	0.22±0.02	0.22±0.02	0.22±0.02	0.26±0.02	0.22±0.02	0.26±0.02
Geometrical/Mechanical Properties						
Core Diameter (µm)	105.0±4.0	200.0±4.0	400.0±10.0	400.0±10.0	600.0±30.0	600.0±30.0
Cladding Diameter (µm)	125.0±3.0	220.0±3.0	440.0±10.0	440.0±10.0	660.0±30.0	660.0±30.0
Coating Diameter (µm)	250.0±15.0	320.0±15.0	730.0±30.0	730.0±30.0	960.0±50.0	960.0±50.0
Core/Cladding Concentricity (µm)	≤3.0	≤2.0	≤3.0	≤3.0	≤8.0	≤8.0
Cladding Non-circularity (%)	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0
Proof Test (kpsi)	≥100	≥100	≥100	≥100	≥100	≥100
Coating Material	Acrylate	Acrylate	Acrylate	Acrylate	Acrylate	Acrylate

Specifications-2 (Double Cladding)

Fiber Type	YH 34/400 -6.5/550 (DC)	YH 50/70 /360-15 /540(DC)	YH 50/70 /360-22 /540(DC)	YH 70/90 /360-15 /540(DC)	YH 100/120 /360-15 /540(DC)	YH 100/120 /360-22 /540(DC)	YH 200/220 -22/350 (DC)	YH 1000/1100 -22/1350 (DC)
Part No.	YH2112-A	YH2111-C	YH2110-B	YH2111-A	YH2111-B	YH 2111-D	YH2110-A	YH2110-B
Optical Properties								
Operating Wavelength (nm)	500-1200							
Inner Cladding NA	0.065±0.005	0.15±0.02	0.22±0.02	0.15 ± 0.02	0.15 ± 0.02	0.22±0.02	0.22±0.02	0.22±0.02
Inner Coating NA	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46	≥0.46
Geometrical/Mechanical Properties								
Core Diameter (µm)	34.0±2.0	50.0±2.0	50.0±2.0	72.0 ± 2.0	100.0 ± 2.0	100.0±2.0	200.0 ± 4.0	1000.0 ± 20.0
Cladding Diameter (µm)	395.0±5.0	-	-	-	-	-	220.0 ± 3.0	1100.0 ± 22.0
Inner Cladding Diameter (µm)	-	73.0±4.0	73.0±4.0	93.0 ± 3.0	123.0 ± 4.0	123.0±4.0	-	-
Outer Cladding Diameter (µm)	-	365.0±5.0	365.0±5.0	367.5 ± 7.5	365.0 ± 5.0	365.0±5.0	-	-
Coating Diameter (µm)	550.0±15.0	540.0±15.0	540.0±15.0	540.0±15.0	540.0 ± 15.0	540.0±15.0	350.0 ± 20.0	1350 ± 50
Core/Outer Cladding Concentricity (µm)	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤10.0
Cladding Non-circularity (%)	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0
Proof Test (kpsi)	≥100	≥100	≥100	≥100	≥100	≥100	≥100	≥70
Inner Coating Material	Low RefractiveIndex Coating							
Outer Coating Material	Acrylate							