# Blue Fiber

Everfoton's Blue Fiber made of special materials is designed to meet the processing and application requirements of blue lasers. With high hydroxyl content and a pure silica structure, the fiber has excellent properties in fiber attenuation and laser damage threshold, meeting the application requirements of certain high-power CW and pulsed lasers. Blue fibers with different geometric sizes and NAs are customized according to different customer application requirements.

## Characteristics

- Low loss for blue band, suitable for medium and high power energy transmission
- High laser damage threshold for blue band, stability of long-term operation
- Customized geometric sizes and NAs
- Customized coating materials

## Applications

- Blue lasers
- Laser display
- Laser illumination
- Laser detection
- Medical
- Scientific research

## Specifications

| Fiber Type | UV 105/125 -22/300E(DC) | UV135/160 -22/320(DC) | UV200/220 -22/320(DC) | UV 300/330 -22/720E(DC) | UV 400/440 -22/880E(DC) | UV600/660 -22/1100E(DC) | UV910/1000 -22/1300(DC) |
|---|---|---|---|---|---|---|---|
| Part No. | UV2140-A | UV2110-B | UV2110-C | UV2140-C | UV2140-D | UV2140-B | UV2110-A |
| **Optical Properties** | | | | | | | |
| Operating Wavelength (nm) | 300~800 | | | | | | |
| NA | 0.22±0.02 | 0.22±0.02 | 0.22±0.02 | 0.22±0.02 | 0.22±0.02 | 0.22±0.02 | 0.22±0.02 |
| Cladding NA | ≥0.37 | ≥0.37 | ≥0.37 | ≥0.37 | ≥0.37 | ≥0.37 | ≥0.37 |
| Fiber Refractive Index Structure | Step Index | Step Index | Step Index | Step Index | Step Index | Step Index | Step Index |
| **Geometrical Properties** | | | | | | | |
| Core Diameter (μm) | 105.0±3.0 | 135.0±4.0 | 200.0±3.0 | 300.0±6.0 | 400.0±8.0 | 600.0±8.0 | 910.0±10.0 |
| Cladding Diameter (μm) | 125.0±1.0 | 160.0±5.0 | 220.0±5.0 | 330.0±7.0 | 440.0±9.0 | 660.0±9.0 | 1000.0±15.0 |
| Core/Cladding Concentricity (μm) | ≤1.0 | ≤1.0 | ≤1.0 | ≤2.0 | ≤4.0 | ≤6.0 | ≤15.0 |
| Coating Diameter (μm) | 300.0±30.0 | 320.0±20.0 | 320.0±20.0 | 720.0±35.0 | 880.0±45.0 | 1100.0±40.0 | 1350.0±50.0 |
| **Material Properties** | | | | | | | |
| Core Material | High-OH Pure Quartz | | | | | | |
| Cladding Material | Fluorine-doped Quartz | | | | | | |
| Inner Coating Material | Low Refractive Index Coating | | | | | | |
| Outer Coating Material | ETFE | Acrylic Resin | Acrylic Resin | ETFE | ETFE | ETFE | Acrylic Resin |
| Operating Temperature (°C) | -40～+85 | -40～+85 | -40～+85 | -40～+85 | -40～+85 | -40～+85 | -40～+85 |
| Proof Test (kpsi) | ≥100 | ≥100 | ≥100 | ≥100 | ≥100 | ≥100 | ≥75 |

*The E in the fiber type indicates that the outer material is ETFE