



Visible Wavelength Select Cutoff Single-Mode Fibers

Nufern visible wavelength fibers are optimized for use from 400 up to 900 nm. The high-performance fibers were developed for applications such as RGB components requiring generation of couplers, diode pigtailed and unique delivery needs. These fibers feature greater proof test levels and a higher second mode cutoff tolerance than standard fibers, resulting in higher strength, increased component reliability, better production yields and reduced costs for component manufacturers.

Typical Applications

- Diode Pigtailed
- Compact UV sources
- RGB components
- Couplers

Features & Benefits

- Superior fiber geometrical tolerances — Improved connectorization and coupling performance
- Extremely tight second mode cutoff tolerance — Enhanced component reproducibility
- Higher proof test level — Greater reliability for tight bend applications

Optical Specifications

Operating Wavelength (nominal)
 Mode Field Diameter (1/e² fit - near field)
 Second Mode Cutoff
 Attenuation
 Numerical Aperture (nominal)
 Bend Loss for 100 turns @ LTBR (nominal)
 Bend Radius for 0.05 dB per 100 turns (nominal)

405-HP

400– 550 nm
 3.5 ± 0.5 μm @ 515 nm
 370 ± 20 nm
 30 dB/km @ 515 nm (nominal)
 0.13
 <0.001 dB @ 405 nm
 Much less than LTBR @ 405 nm

460-HP

450 – 600 nm
 3.5 ± 0.5 μm @ 515 nm
 430 ± 20 nm
 30 dB/km @ 515 nm (nominal)
 0.13
 <0.001 dB @ 460 nm
 Much less than LTBR @ 460 nm

630-HP

600 - 770 nm
 4.0 ± 0.5 μm @ 630 nm
 570 ± 30 nm
 ≤12 dB/km @ 630 nm
 0.13
 <0.001 dB @ 630 nm
 Much less than LTBR @ 630 nm

Geometrical & Mechanical Specifications

Clad Diameter
 Coating Diameter
 Core-Clad Concentricity
 Coating/Clad Offset
 Coating Material
 Operating Temperature
 Short-Term Bend Radius
 Long-Term Bend Radius
 Proof Test Level

125 ± 1 μm
 245 ± 15 μm
 < 0.5 μm
 ≤ 5 μm
 UV Cured, Dual Acrylate
 - 55 to + 85°C
 ≥ 6 mm
 ≥ 13 mm
 ≥ 200 kpsi (1.4 GN/m²)

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Standard specifications and design parameters are listed above. Specifications are subject to change without notice. Other configurations such as alternative form factors, optimized cut-off and UV cured color coating may be available. Let us know how Nufern can assist with your requirements.