



Visible Wavelength Select Cutoff Single-Mode Fibers

Nufer 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 tighter 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
 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– 700 nm
 $3.5 \pm 0.5 \mu\text{m}$ @ 460 nm
 370 ± 20 nm
 ≤ 70 dB/km @ 460 nm
 0.13
 <0.001 dB @ 405 nm
 Much less than LTBR @ 405 nm

460-HP

450 – 770 nm
 $3.2 \pm 0.5 \mu\text{m}$ @ 460 nm
 430 ± 20 nm
 ≤ 70 dB/km @ 460 nm
 0.13
 <0.001 dB @ 460 nm
 Much less than LTBR @ 630 nm

630-HP

600 - 990 nm
 $4.0 \pm 0.5 \mu\text{m}$ @ 630 nm
 550 ± 50 nm
 ≤ 10 dB/km @ 630 nm
 0.13
 <0.001 dB @ 630 nm
 Much less than LTBR @ 630 nm

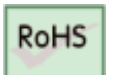
Geometrical & Mechanical Specifications

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

$125.0 \pm 1.0 \mu\text{m}$
 $245 \pm 15 \mu\text{m}$
 $< 0.5 \mu\text{m}$
 $\leq 5 \mu\text{m}$
 UV Cured, Dual Acrylate
 $- 55$ to $+ 85^\circ\text{C}$
 ≥ 6 mm
 ≥ 13 mm
 ≥ 200 kpsi (1.4 GN/m²)

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