



Pure Silica Core Visible Wavelength Fibers

Nufern's pure silica core fibers are optimized for use at visible wavelengths from 400 up to 700 nm. These high-performance fibers were developed for applications such as RGB components requiring couplers, diode pigtails and unique delivery needs. The pure silica core fibers were designed for more demanding applications that require lower attenuation and higher resistance to radiation and color center formation compared to germanium-doped fibers.

Typical Applications

- Diode Pigtails
- Compact UV sources
- RGB components

Features & Benefits

- Tight specifications — Highly deterministic results, highest product yield
- High proof test — Low risk of mechanical damage and failure
- High fatigue failure resistance — Longest service life
- Pure silica core — Resistance to radiation-induced damage and color center formation

Optical Specifications

Operating Wavelength (nominal)
Mode Field Diameter (1/e² fit - near field)
Second Mode Cutoff
Attenuation
Numerical Aperture (nominal)

Geometrical & Mechanical Specifications

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

S405-HP

400 – 550 nm
2.9 μm @ 405 nm*
370 \pm 20 nm
 \leq 30 dB/km @ 460 nm
0.12

S460-HP

460 – 600 nm
3.4 \pm 0.5 μm @ 460 nm
425 \pm 25 nm
 \leq 30 dB/km @ 460 nm
0.12

S630-HP

600 – 860 nm
4.2 \pm 0.5 μm @ 630 nm
590 \pm 30 nm
 \leq 10 dB/km @ 630 nm
0.12

125.0 \pm 1.0 μm
245 \pm 15 μm
< 0.5 μm
 \leq 5 μm
Pure Silica Core
UV Cured, Dual Acrylate
- 55 to + 85°C
 \geq 6 mm
 \geq 13 mm
 \geq 200 kpsi (1.4 GN/m²)

*Nominal value

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