

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 pigtailed 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 Pigtailed
- 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)

S405-HP

400 – 550 nm
 2.9 μm @ 405 nm*
 370 ± 20 nm
 ≤ 30 dB/km @ 460 nm
 0.12

S460-HP

460 – 600 nm
 3.4 ± 0.5 μm @ 460 nm
 425 ± 25 nm
 ≤ 30 dB/km @ 460 nm
 0.12

S630-HP

600 – 860 nm
 4.2 ± 0.5 μm @ 630 nm
 590 ± 30 nm
 ≤ 10 dB/km @ 630 nm
 0.12

Geometrical & Mechanical Specifications

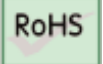
Clad Diameter
 Coating Diameter
 Core-Clad Concentricity
 Coating/Clad Offset
 Core Type
 Coating Material
 Operating Temperature
 Short-Term Bend Radius
 Long-Term Bend Radius
 Proof Test Level

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

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*Nominal value



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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.