



Nufern 980 nm Select Cut-Off Single-Mode Fibers

Nufern's 980 nm high-performance select cut-off single-mode fibers are optimized for use by component manufacturers in the telecommunications wavelengths. These application-specific fibers were developed for pump diode pigtails, unique delivery for components, and couplers. Available in 80 μm and 125 μm form factors, Nufern's 980 nm fibers offer exceptional uniformity and core/clad concentricity specifications, very tight second mode cut-off tolerances, and tighter bend radius applications in miniaturized fiber optic packages. These high-performance specifications result in superior strength, increased component reliability, improved production yields and reduced component manufacturer costs.

Typical Applications

- Pump Diode Pigtails
- Metro components
- Small form factor components
- Couplers

Features & Benefits

- Exceptional uniformity and core/clad concentricity — Low, consistent splice loss to telecom components
- Extremely tight second mode cutoff tolerance — High yield coupler manufacturing
- Higher proof test levels — Critical for long-term reliability in tight bend applications

Optical Specifications

Operating Wavelength

Core NA

Mode Field Diameter

Cutoff

Core Attenuation

980-HP

980 – 1600 nm

0.200

$4.2 \pm 0.5 \mu\text{m}$ @ 980 nm
 $6.8 \pm 0.5 \mu\text{m}$ @ 1550 nm

$920 \pm 30 \text{ nm}$

$\leq 3.5 \text{ dB/km}$ @ 980 nm

980-HP-80

980 – 1600 nm

0.200

$4.2 \pm 0.5 \mu\text{m}$ @ 980 nm
 $6.8 \pm 0.5 \mu\text{m}$ @ 1550 nm

$920 \pm 30 \text{ nm}$

$\leq 3.5 \text{ dB/km}$ @ 980 nm

980M-HP-80

980 – 1600 nm

0.170

$4.7 \pm 0.3 \mu\text{m}$ @ 980 nm

$930 \pm 30 \text{ nm}$

$\leq 3.0 \text{ dB/km}$ @ 980 nm

Geometrical & Mechanical Specifications

Cladding Diameter

Core Diameter

Coating Diameter

Coating Concentricity

Core/Clad Offset

Coating Material

Operating Temperature Range

Short Term Bend Radius

Long Term Bend Radius

Proof Test Level

$125.0 \pm 1.0 \mu\text{m}$

$3.6 \mu\text{m}$

$245.0 \pm 15.0 \mu\text{m}$

$< 5.0 \mu\text{m}$

$\leq 0.50 \mu\text{m}$

UV Cured, Dual Acrylate

$-55 \text{ to } 85^\circ\text{C}$

$\geq 6 \text{ mm}$

$\geq 13 \text{ mm}$

$\geq 200 \text{ kpsi}$ (1.4 GN/m²)

$80.0 \pm 1.0 \mu\text{m}$

$3.6 \mu\text{m}$

$165.0 \pm 10.0 \mu\text{m}$

$< 5.0 \mu\text{m}$

$\leq 0.50 \mu\text{m}$

UV Cured, Dual Acrylate

$-55 \text{ to } 85^\circ\text{C}$

$\geq 4 \text{ mm}$

$\geq 9 \text{ mm}$

$\geq 200 \text{ kpsi}$ (1.4 GN/m²)

$80.0 \pm 1.0 \mu\text{m}$

$4.5 \mu\text{m}$

$165.0 \pm 10.0 \mu\text{m}$

$< 5.0 \mu\text{m}$

$\leq 0.50 \mu\text{m}$

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Nufern products are manufactured under an ISO 9001:2008 certified quality management system.

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.



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