

Nuferm 980 nm Select Cut-Off Single-Mode Fibers



Nuferm'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 pigtailed, unique delivery for components, and couplers. Available in 80 μm and 125 μm form factors, Nuferm'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 Pigtailed
- 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

	980-HP	980-HP-80	980M-HP-80
Operating Wavelength	980 – 1600 nm	980 – 1600 nm	980 – 1600 nm
Core NA	0.200	0.200	0.170
Mode Field Diameter	4.2 \pm 0.5 μm @ 980 nm 6.8 \pm 0.5 μm @ 1550 nm	4.2 \pm 0.5 μm @ 980 nm 6.8 \pm 0.5 μm @ 1550 nm	4.7 \pm 0.3 μm @ 980 nm
Cutoff	920 \pm 30 nm	920 \pm 30 nm	930 \pm 30 nm
Core Attenuation	\leq 3.5 dB/km @ 980 nm	\leq 3.5 dB/km @ 980 nm	\leq 3.0 dB/km @ 980 nm

Geometrical & Mechanical Specifications

	980-HP	980-HP-80	980M-HP-80
Cladding Diameter	125.0 \pm 1.0 μm	80.0 \pm 1.0 μm	80.0 \pm 1.0 μm
Core Diameter	3.6 μm	3.6 μm	4.5 μm
Coating Diameter	245.0 \pm 15.0 μm	165.0 \pm 10.0 μm	165.0 \pm 10.0 μm
Coating Concentricity	$<$ 5.0 μm	$<$ 5.0 μm	$<$ 5.0 μm
Core/Clad Offset	\leq 0.50 μm	\leq 0.50 μm	\leq 0.50 μm
Coating Material	UV Cured, Dual Acrylate	UV Cured, Dual Acrylate	UV Cured, Dual Acrylate
Operating Temperature Range	-55 to 85 $^{\circ}\text{C}$	-55 to 85 $^{\circ}\text{C}$	-55 to 85 $^{\circ}\text{C}$
Short Term Bend Radius	\geq 6 mm	\geq 4 mm	\geq 4 mm
Long Term Bend Radius	\geq 13 mm	\geq 9 mm	\geq 9 mm
Proof Test Level	\geq 200 kpsi (1.4 GN/m ²)	\geq 200 kpsi (1.4 GN/m ²)	\geq 200 kpsi (1.4 GN/m ²)



7 Airport Park Road, East Granby, CT 06026 • 860.408.5000 • Toll-free 866.466.0214 • Fax 860.844.0210 E-mail info @ nuferm.com • www.nuferm.com Nuferm 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 Nuferm can assist with your requirements.