

1550 nm Select Cutoff Single-Mode Fibers

Nufern's 1550B-HP high-performance select cutoff bend insensitive single-mode fiber is optimized for use in small form factor active and passive components requiring tight bend radii. With a bend loss considerably lower than SMF-28™, 1550B-HP is ideal for the video leg in FTTH CWDM and applications such as smaller form factor C and L-band components and low NA planar waveguides.

Typical Applications

- FTTx components and modules
- Compact C and L-band components
- Low NA planar waveguides
- Metro components

Features & Benefits

- Optimized cutoff for 1550 nm wavelength — Extremely low bend loss
- Tight mechanical and optical tolerances — high yield component manufacturing
- Mode matched to SMF-28 — Low splice loss to standard fibers
- High proof test for tighter bends — Critical for long-term reliability in tight bend applications

Optical Specifications

Operating Wavelength (nominal)	1460– 1620 nm
Mode Field Diameter	9.5 ± 0.5 μm @ 1550 nm
Second Mode Cutoff	1400 ± 50 nm
Attenuation	≤ 0.5 dB/km @ 1550 nm
Numerical Aperture (nominal)	0.13
Bend Loss for 100 turns @ LTBR (nominal)	0.3 dB @ 1550 nm
Bend Radius for 0.05 dB per 100 turns (nominal)	15 mm @ 1550 nm

1550B-HP

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1550B-HP-80

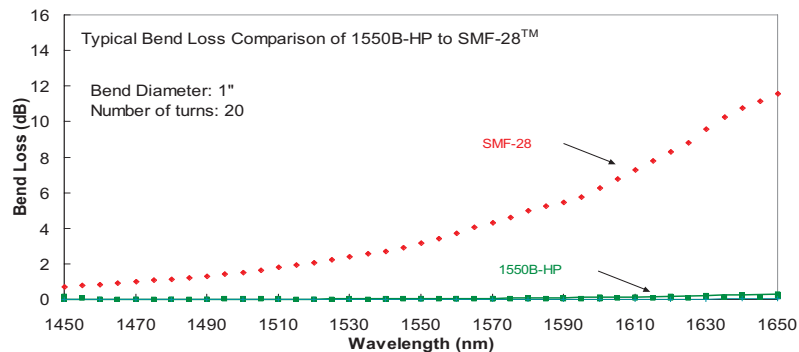
Operating Wavelength (nominal)	1460 – 1620 nm
Mode Field Diameter	9.5 ± 0.5 μm @ 1550 nm
Second Mode Cutoff	1400 ± 50 nm
Attenuation	≤ 0.5 dB/km @ 1550 nm
Numerical Aperture (nominal)	0.13
Bend Loss for 100 turns @ LTBR (nominal)	0.15 dB @ 1550 nm
Bend Radius for 0.05 dB per 100 turns (nominal)	15 mm @ 1550 nm

Geometrical & Mechanical Specifications

Clad Diameter	125 ± 1 μm
Coating Diameter	245 ± 15 μm
Core-Clad Concentricity	< 0.5 μm
Coating/Clad Offset	≤ 5 μm
Coating Material	UV Cured, Dual Acrylate
Operating Temperature	- 55 to + 85°C
Short-Term Bend Radius	≥ 6 mm
Long-Term Bend Radius	≥ 13 mm
Proof Test Level	≥ 200 kpsi (1.4 GN/m ²)

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Coating Diameter	245 ± 15 μm
Core-Clad Concentricity	< 0.5 μm
Coating/Clad Offset	≤ 5 μm
Coating Material	UV Cured, Dual Acrylate
Operating Temperature	- 55 to + 85°C
Short-Term Bend Radius	≥ 6 mm
Long-Term Bend Radius	≥ 13 mm
Proof Test Level	≥ 200 kpsi (1.4 GN/m ²)

Clad Diameter	80 ± 1 μm
Coating Diameter	165 ± 10 μm
Core-Clad Concentricity	< 0.5 μm
Coating/Clad Offset	≤ 5 μm
Coating Material	UV Cured, Dual Acrylate
Operating Temperature	- 55 to + 85°C
Short-Term Bend Radius	≥ 4 mm
Long-Term Bend Radius	≥ 9 mm
Proof Test Level	≥ 200 kpsi (1.4 GN/m ²)



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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 cutoff and UV cured color coating may be available. Let us know how Nufern can assist with your requirements. SMF-28 is a registered trademark of Corning, Inc.

