

Corning® HI 780 & HI 780C Specialty Optical Fibers

High Index / Bend Insensitive



For low loss fused couplers, high performance components and small footprint assemblies

Manufactured with Corning's patented Outside Vapor Deposition (OVD) process, Corning® HI 780 Specialty Fiber offers world-class durability and reliability. When used as component pigtails, this fiber allows for efficient fiber coupling within photonic products. It also offers reduced bend attenuation due to its high core index of refraction. Corning® HI 780 Specialty Fiber is capable of operating with short wavelength laser and LED sources. Corning now offers a re-engineered version, HI 780C, which delivers non-adiabatic taper loss during component manufacturing. HI 780C is a coupler-optimized design that allows for steeper tapers and shorter couplers with lower losses.

Applications:

- Low loss fused fiber couplers
- Component fiber for couplers, and other DWDM components
- Short wavelength laser and LED sources
- Sensors and gyroscopes

Features:

- Outstanding consistency and uniformity using Corning's patented Outside Vapor Deposition (OVD) process
- Dual acrylate coating system provides excellent protection from microbend-induced attenuation and superior mechanical robustness
- Excellent geometry control
- High core index of refraction
- Efficient coupling
- High numerical aperture

HI 780 and HI 780C*

Key Optical Specifications

Operating Wavelength (nm)	> 780
Cutoff Wavelength (nm)	720 ± 50
Maximum Attenuation (dB/km)	4.3 @ 780 nm 3.0 @ 850 nm
Mode-field Diameter (µm)	4.6 ± 0.5 @ 780 nm 5.0 ± 0.5 @ 850 nm

* HI 780C - Coupler optimized (see graph below)

Key Geometric, Mechanical and Environmental Specifications

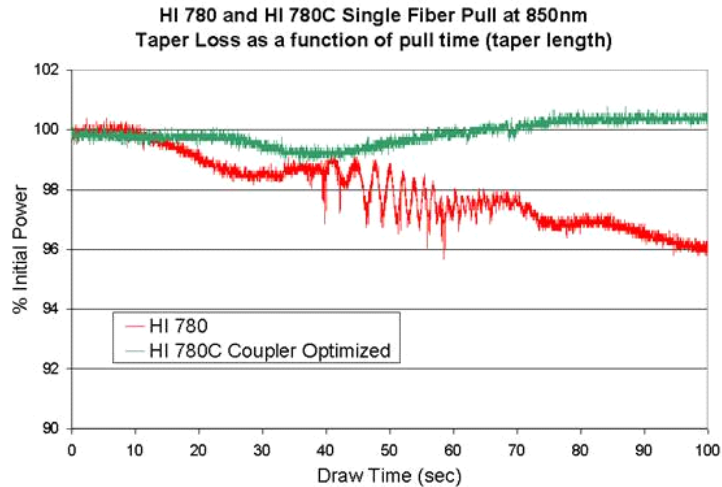
Cladding Outside Diameter (µm)	125 ± 0.5
Coating Outside Diameter (µm)	245 ± 10
Core-to-Cladding Offset (µm)	≤ 0.3
Standard Lengths	500 m, 1 km, 2, km, 5 km
Proof Test (kpsi)	100 or 200
Operating Temperature (°C)	-60 to 85

Performance Characterizations**

Nominal Delta (%)	0.45
Numerical Aperture	0.14
Refractive Index Value - Core	1.463 @ 651 nm
Bendloss (20 mm O.D.; 850 nm) (dB/turn)	< 0.05
Core Diameter (µm)	4.0

	HI 780	HI 780C
Dispersion (ps/nm/km)	-132 @ 780 nm -99 @ 850 nm	-135 @ 780 nm -102 @ 850 nm

** Values in this table are nominal or calculated values



For more information about Corning's leadership in Specialty Fiber technology visit our website at www.corning.com/specialtyfiber

To obtain additional technical information, an engineering sample or to place an order for this product, please contact us at:

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