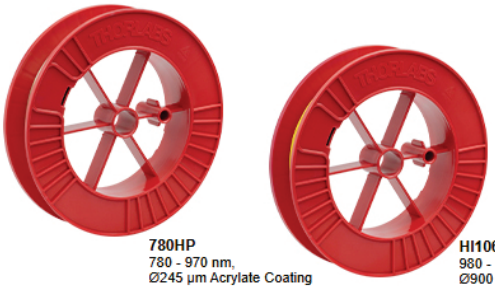
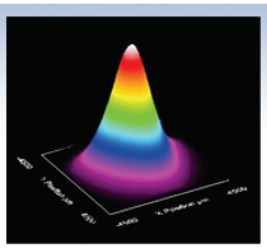
Single Mode Fiber

- Operating Wavelengths from 320 nm to 2200 nm
- Shipped from Stock with No Minimum Order
- Patch Cables Available for All Fibers
- Ø80 µm or Ø125 µm Cladding Available

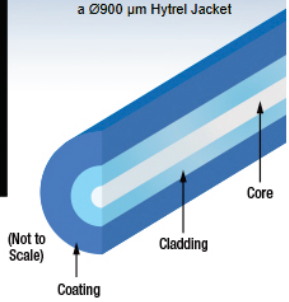


780HP
780 - 970 nm,
Ø245 µm Acrylate Coating

HI1060-J9
980 - 1650 nm,
Ø900 µm Hytrel® Jacket



Typical Output Beam Profile from a Single Mode Fiber



Single Mode Fiber Cross Section

Related Items



Overview | MFD Definition | Damage Threshold | Feedback

Features

- Various Single Mode Fibers Available Offering Transmission from 320 to 2200 nm
- Shipped from Stock
- No Minimum Purchase Required

Thorlabs offers these single mode fibers for operating wavelengths from 320 nm to 2200 nm. Details on the physical and optical properties of these fibers are provided in Tables G1.1, G2.1, G3.1, G4.1, G5.1, G6.1, and G7.1. Patch cables that incorporate these fibers are available from stock, see Tables G1.2, G2.2, G3.2, G4.2, G5.2, G6.2, and G7.2 for more information. If our selection of stocked patch cables does not meet your needs, we also offer custom fiber patch cables.

Single Mode Fiber Quick Links
320 - 430 nm
400 - 680 nm
600 - 860 nm
780 - 970 nm
980 - 1650 nm
1260 - 1650 nm
1850 - 2200 nm



Single Mode Fiber: 320 to 430 nm

Thorlabs' SM300 fiber consists of an undoped, pure silica core surrounded by a depressed, fluorine-doped cladding and dual acrylate coating. Since this fiber does not contain germania (GeO_2), which causes electronic defects and color centers associated with the Ge-O bond, the primary cause of photodarkening is greatly reduced. As a result, power handling in the blue region is increased from several milliwatts to several watts. The transmission-limiting effects caused by other nonlinearities (e.g., stimulated scattering) or even thermal damage are also reduced compared to those of a conventional silica fiber doped with germanium. In the UV region, the SM300 fiber will still exhibit some photodarkening, but will have superior performance compared to conventional fibers.

Table G1.1 Fiber Specifications

Item #	Operating Wavelength	Mode Field Diameter[a]	Cladding Diameter	Coating Diameter	Cut-Off Wavelength
SM300	320 - 430 nm	2.0 - 2.4 µm @ 350 nm	125 ± 1 µm	245 ± 15 µm	≤310 nm

Item #	Short-Term Bend Radius	Long-Term Bend Radius	Attenuation (Max)	Proof Test Level	NA	Core Index[b]	Cladding Index[b]
SM300	≥10 mm	≥30 mm	≤100 dB/km @ 350 nm ≤130 dB/km @ 430 nm	1% (100 kpsi)	0.12 - 0.14	320 nm: 1.48274 375 nm: 1.47314 430 nm: 1.46719	320 nm: 1.47703 375 nm: 1.46739 430 nm: 1.46142

a. MFD is a nominal, calculated value, estimated at the operating wavelength(s) using a typical value of NA & cut-off wavelength. Please see the *MFD Definition* tab for details.
b. The indices provided are for an NA of 0.13.

Table G1.2 Stock Patch Cables Available with This Fiber

SM300 Fiber	More [+]

Custom cables are also available. Click here for details.

Based on your currency / country selection, your order will ship from Newton, New Jersey

+1	Qty	Docs	Part Number - Universal	Price	Available
+1			SM300 Customer Inspired! Single Mode Optical Fiber, 320 - 430 nm, Ø125 µm Cladding	$22.13 Per Meter Volume Pricing	Today

* Orders for in-stock bare fiber placed by 3:00 PM ET are eligible for same-day shipment.

Add To Cart

Single Mode Fiber: 400 to 680 nm

These fibers enable single mode transmission from 400 - 680 nm and feature an acrylate jacket. The S405-XP and SM400 fibers both consist of an undoped, pure silica core, and the SM400 fiber is surrounded by a depressed, fluorine-doped cladding. Since these two fibers do not contain germania (GeO_2), which causes electronic defects and color centers associated with the Ge-O bond, the primary cause of photodarkening is greatly reduced. The transmission-limiting effects caused by other nonlinearities (e.g., stimulated scattering) or even thermal damage are also reduced compared to those of a conventional silica fiber doped with germanium.

Table G2.1 Fiber Specifications

Item #	Operating Wavelength	Mode Field Diameter[b]	Cladding Diameter	Coating Diameter	Cut-Off Wavelength
S405-XP	400 - 680 nm	3.3 ± 0.5 µm @ 405 nm 4.6 ± 0.5 µm @ 630 nm	125.0 ± 1.0 µm	245.0 ± 15.0 µm	380 ± 20 nm
SM400	405 - 532 nm	2.5 - 3.4 µm @ 480 nm	125 ± 1 µm	245 ± 15 µm	305 - 400 nm
SM450[a]	488 - 633 nm	2.8 - 4.1 µm @ 488 nm	125 ± 1.0 µm	245 ± 15 µm	350 - 470 nm
460HP	450 - 600 nm	3.5 ± 0.5 µm @ 515 nm	125 ± 1 µm	245 ± 15 µm	430 ± 20 nm

Item #	Short-Term Bend Radius	Long-Term Bend Radius	Attenuation (Max)	Proof Test Level	NA	Core Index	Cladding Index
S405-XP	≥6 mm	≥13 mm	≤30.0 dB/km @ 630 nm ≤30.0 dB/km @ 488 nm	≥200 kpsi (1.4 GN/m^2)	0.12	Call[d]	Call[d]
SM400	≥10 mm	≥30 mm	≤50 dB/km @ 430 nm ≤30 dB/km @ 532 nm	1% (100 kpsi)	0.12 - 0.14	405 nm: 1.46958[e] 467 nm: 1.46435[e] 532 nm: 1.46071[e]	405 nm: 1.46382[e] 467 nm: 1.45857[e] 532 nm: 1.45491[e]
SM450	≥5 mm	≥25 mm	≤50 dB/km @ 488 nm[c]	1% (100 kpsi)	0.10 - 0.14	488 nm: 1.46645[f] 514 nm: 1.46501[f]	488 nm: 1.46302[f] 514 nm: 1.46159[f]
460HP	≥6 mm	≥13 mm	≤30 dB/km @ 515 nm	≥200 kpsi (1.4 GN/m^2)	0.13	Call[d]	Call[d]

a. The wavelength range is the spectral region between the cut-off wavelength and the bend edge and represents the region where the fiber transmits the TEM_{00} mode with low attenuation. For this fiber, the bend edge wavelength is typically 200 nm longer than the cut-off wavelength.
b. MFD is a nominal, calculated value, estimated at the operating wavelength(s) using a typical value of NA & cut-off wavelength. Please see the *MFD Definition* tab for details.
c. Stated attenuation is a worst-case value, quoted for the shortest design wavelength.
d. Please contact us to learn more about the refractive index of this fiber, as we are not permitted to publish this information on our website.
e. The indices provided are for an NA of 0.13.
f. The indices provided are for an NA of 0.10.

Table G2.2 Stock Patch Cables Available with These Fibers

S405-XP Fiber	More [+]
SM400 Fiber	More [+]
SM450 Fiber	More [+]

Custom cables are also available. Click here for details.

Based on your currency / country selection, your order will ship from Newton, New Jersey

+1	Qty	Docs	Part Number - Universal		Price	Available
+1			S405-XP	Single Mode Optical Fiber, 400 - 680 nm, Ø125 µm Cladding	$18.04 Per Meter Volume Pricing	Today
+1			SM400	Single Mode Optical Fiber, 405 - 532 nm, Ø125 µm Cladding	$22.13 Per Meter Volume Pricing	Today
+1			SM450	Single Mode Optical Fiber, 488 - 633 nm, Ø125 µm Cladding	$9.22 Per Meter Volume Pricing	Today
+1			460HP	Single Mode Optical Fiber, 450 - 600 nm, Ø125 µm Cladding	$13.23 Per Meter Volume Pricing	Today

*** Orders for in-stock bare fiber placed by 3:00 PM ET are eligible for same-day shipment.**

Add To Cart

Single Mode Fiber: 600 to 860 nm

These fibers feature an acrylate coating and enable single mode transmission from 600 - 860 nm. This transmission range enables true single mode operation at the HeNe lasing line (632.8 nm) and for many visible wavelength laser diodes. These fibers have exceptional core/cladding concentricity which reduces insertion and bend losses. The 630HP fiber offers tight second mode cut-off tolerances, ensuring single mode operation over the full transmission range.

Table G3.1 Fiber Specifications

Item #	Operating Wavelength	Mode Field Diameter[b]	Cladding Diameter	Coating Diameter	Cut-Off Wavelength[c]
SM600	633 - 780 nm[a]	3.6 - 5.3 µm @ 633 nm	125 ± 1 µm	245 ± 15 µm	500 - 600 nm
S630-HP	630 - 860 nm	4.2 ± 0.5 µm @ 630 nm	125 ± 1.0 µm	245 ± 15 µm	590 ± 30 nm
630HP	600 - 770 nm	4.0 ± 0.5 µm @ 630 nm	125 ± 1 µm	245 ± 15 µm	570 ± 30 nm

Item #	Short-Term Bend Radius	Long-Term Bend Radius	Max Attenuation	Proof Test Level	NA	Core Index	Cladding Index
SM600	≥5 mm	≥25 mm	≤15 dB/km[d]	1% (100 kpsi)	0.10 - 0.14	600 nm: 1.46147[e] 700 nm: 1.45872[e] 800 nm: 1.45675[e]	600 nm: 1.45804[e] 700 nm: 1.45530[e] 800 nm: 1.45332[e]
S630-HP	≥6 mm	≥13 mm	≤10 dB/km @ 630 nm	2% (200 kpsi)	0.12	Call[f]	Call[f]
630HP	≥6 mm	≥13 mm	≤12 dB/km @ 630 nm	≥2% (200 kpsi)	0.13	Call[f]	Call[f]

a. The wavelength range is the spectral region between the cut-off wavelength and the bend edge, in which the fiber transmits the TEM_{00} mode with low attenuation. For this fiber, the bend edge wavelength is typically 200 nm longer than the cut-off wavelength. At the operating wavelengths between 633 nm and 780 nm, the launched power must be considered carefully as these fibers have germanosilicate cores and as such are susceptible to color center generation.
b. MFD is a nominal, calculated value, estimated at the operating wavelength(s) using a typical value of NA & cut-off wavelength. Please see the *MFD Definition* tab for details.
c. The wavelength at which the fiber only allows a single mode to propagate.
d. Attenuation is worst-case value, quoted for the shortest wavelength.
e. The indices provided are for an NA of 0.10.
f. Please contact us to learn more about the refractive index of this fiber, as we are not permitted to publish this information on our website.

Table G3.2 Stock Patch Cables Available with These Fibers	
SM600 Fiber	More [+]
S630-HP Fiber	More [+]

Custom cables are also available. Click here for details.

Based on your currency / country selection, your order will ship from Newton, New Jersey

+1	Qty	Docs	Part Number - Universal		Price	Available
+1			SM600	Single Mode Optical Fiber, 633 - 780 nm, Ø125 µm Cladding	$6.16 Per Meter Volume Pricing	Today
+1			S630-HP	Single Mode Optical Fiber, 630 - 860 nm, Ø125 µm Cladding	$11.58 Per Meter Volume Pricing	Today
+1			630HP	Single Mode Optical Fiber, 600 - 770 nm, Ø125 µm Cladding	$7.05 Per Meter Volume Pricing	Today

*** Orders for in-stock bare fiber placed by 3:00 PM ET are eligible for same-day shipment.**

Add To Cart

Single Mode Fiber: 780 to 970 nm

These fibers enable single mode transmission from 780 - 970 nm and feature an acrylate jacket. These fibers have exceptional core/cladding concentricity which reduces insertion and bend losses. The 780HP fiber offers tight second mode cut-off tolerances, ensuring single mode operation over the full transmission range. The SM800G80 has enhanced bend insensitivity, which reduces losses.

Table G4.1 Fiber Specifications					
Item #	Operating Wavelength	Mode Field Diameter[b]	Cladding Diameter	Coating Diameter	Cut-Off Wavelength
780HP	780 - 970 nm	5.0 ± 0.5 µm @ 850 nm	125 ± 1 µm	245 ± 15 µm	730 ± 30 nm
SM800-5.6-125	830 - 980 nm[a]	4.7 - 6.9 µm @ 830 nm	125 ± 1.0 µm	245 ± 15 µm	660 - 800 nm
SM800G80	830 - 980 nm[a]	3.75 - 4.9 µm @ 830 nm	80 ± 1 µm	170 ± 10 µm	660 - 800 nm

Item #	Short-Term Bend Radius	Long-Term Bend Radius	Attenuation (Max)	Proof Test Level	NA	Core Index	Cladding Index
780HP	≥6 mm	≥13 mm	≤4.0 dB/km @ 780 nm ≤3.5 dB/km @ 850 nm	2% (200 kpsi)	0.13	Call[d]	Call[d]
SM800-5.6-125	≥5 mm	≥25 mm	<5 dB/km[c]	1% (100 kpsi)	0.10 - 0.14	830 nm: 1.45625[e]	830 nm: 1.45282[e]
SM800G80	≥5 mm	≥12 mm (or 38 mm for 25 Year Life)	≤3.0 dB/km[c]	1% (100 kpsi)	0.14 - 0.18	830 nm: 1.45954[f]	830 nm: 1.45282[f]

a. The wavelength range is the spectral region between the cut-off wavelength and the bend edge, in which the fiber transmits the TEM_{00} mode with low attenuation. For this fiber, the bend edge wavelength is typically 200 nm longer than the cut-off wavelength. At the design wavelength of 830 nm, the launched power must be considered carefully as these fibers have germanosilicate cores and as such are susceptible to color center generation.
b. MFD is a nominal, calculated value, estimated at the operating wavelength(s) using a typical value of NA & cut-off wavelength. Please see the *MFD Definition* tab for details.
c. Attenuation is a worse-case value, quoted for the shortest design wavelength.
d. Please contact us to learn more about the refractive index of this fiber, as we are not permitted to publish this information on our website.
e. The index provided is for an NA of 0.10.
f. The index provided is for an NA of 0.14.

Table G4.2 Stock Patch Cables Available with These Fibers	
780HP Fiber	More [+]
SM800-5.6-125 Fiber	More [+]

Custom cables are also available. Click here for details.

Based on your currency / country selection, your order will ship from Newton, New Jersey

+1	Qty	Docs	Part Number - Universal		Price	Available
+1			780HP	Single Mode Optical Fiber, 780 - 970 nm, Ø125 µm Cladding	$7.05 Per Meter Volume Pricing	Today
+1			SM800-5.6-125	Single Mode Optical Fiber, 830 nm, Ø125 µm Cladding	$7.17 Per Meter Volume Pricing	Today
+1			SM800G80	Customer Inspired! Single Mode Optical Fiber, 830 nm, 0.14-0.18 NA, Ø80 µm Cladding	$5.97 Per Meter Volume Pricing	Today

*** Orders for in-stock bare fiber placed by 3:00 PM ET are eligible for same-day shipment.**

Add To Cart

Single Mode Fiber: 980 to 1650 nm

These fibers are designed for operation in the 980 - 1650 nm wavelength range. The SM980-5.8-125 fiber has a mode field diameter (MFD) matched to other fibers used in Erbium-Doped Fiber Amplifier (EDFA) pump laser pigtails. See the *MFD Definition* tab for a description of MFD. The HI1060-J9 fiber has a Ø900 µm tight-buffer Hytrel outer jacket. We also offer stocked 100 m lengths of the HI1060-J9 fiber (Item # HI1060-100). Our SM980G80 fiber offers enhanced bend insensitivity, which reduces losses, and the 980HP and 1060XP fibers offer a tight second mode cut-off tolerance, ensuring single mode operation over the full transmission range.

Table G5.1 Fiber Specifications					
Item #	Operating Wavelength	Mode Field Diameter[a]	Cladding Diameter	Coating Diameter	Cut-Off Wavelength
SM980-5.8-125	980 - 1550 nm	5.3 - 6.4 µm @ 980 nm	125 ± 1 µm	245 ± 15 µm	870 - 970 nm
SM980G80	980 - 1550 nm	4.2 - 4.9 µm @ 980 nm	80 ± 1 µm	170 ± 10 µm	870 - 970 nm
1060XP	980 - 1600 nm	5.9 ± 0.5 µm @ 980 nm 6.2 ± 0.5 µm @ 1060 nm 9.5 ± 0.5 µm @ 1550 nm	125 ± 0.5 µm	245 ± 10 µm	920 ± 30 nm

980HP	980 - 1600 nm	4.2 ± 0.5 µm @ 980 nm 6.8 ± 0.5 µm @ 1550 nm	125 ± 1 µm	245 ± 15 µm	920 ± 30 nm
HI1060-J9	980 - 1650 nm	5.9 ± 0.3 µm @ 980 nm 6.2 ± 0.3 µm @ 1060 nm	125 ± 0.5 µm	245 ± 10 µm	920 ± 50 nm

Item #	Short-Term Bend Radius	Long-Term Bend Radius	Attenuation (Max)	Proof Test Level	NA	Core Index	Cladding Index
SM980-5.8-125	≥5 mm	≥25 mm	≤2.0 dB/km[b]	1% (100 kpsi)	0.13 - 0.15	970 nm: 1.45660[c] 1310 nm: 1.45259[c] 1650 nm: 1.44854[c]	970 nm: 1.45081[c] 1310 nm: 1.44680[c] 1650 nm: 1.44275[c]
SM980G80	≥5 mm	≥12 mm (or 38 mm for 25 Year Life)	≤2 dB/km	1% (100 kpsi)	0.17 - 0.19	980 nm: 1.46058[d] 1310 nm: 1.45670[d] 1650 nm: 1.45265[d]	980 nm: 1.45068[d] 1310 nm: 1.44680[d] 1650 nm: 1.44275[d]
1060XP	≥6 mm	≥13 mm	≤2.1 dB/km @ 980 nm ≤1.5 dB/km @ 1060 nm	200 kpsi (1.4 GN/m^2)	0.14	Call[e]	Call[e]
980HP	≥6 mm	≥13 mm	≤3.5 dB/km @ 980 nm	200 kpsi (1.4 GN/m^2)	0.20	Call[e]	Call[e]
HI1060-J9	-	-	2.1 dB/km @ 980 nm 1.5 dB/km @1060 nm	200 kpsi	0.14	Proprietary[f]	Proprietary[f]

a. MFD is a nominal, calculated value, estimated at the operating wavelength(s) using a typical value of NA & cut-off wavelength. Please see the *MFD Definition* tab for details.
b. Attenuation is a worst-case value, quoted for the shortest design wavelength.
c. The indices provided are for an NA of 0.13.
d. The indices provided are for an NA of 0.17.
e. Please contact us to learn more about the refractive index of this fiber, as we are not permitted to publish this information on our website.
f. We regret that we cannot provide this proprietary information.

Table G5.2 Stock Patch Cables Available with These Fibers	
SM980-5.8-125 Fiber	More [+]
HI1060-J9 Fiber	More [+]

Custom cables are also available. Click here for details.

Based on your currency / country selection, your order will ship from Newton, New Jersey

+1	Qty	Docs	Part Number - Universal		Price	Available
+1			SM980-5.8-125	Single Mode Optical Fiber, 980 - 1550 nm, Ø125 µm Cladding	$7.17 Per Meter Volume Pricing	Today
+1			SM980G80	Customer Inspired! Single Mode Optical Fiber, 980 - 1550 nm, Ø80 µm Cladding	$5.97 Per Meter Volume Pricing	Today
+1			1060XP	Single Mode Optical Fiber, 980 - 1600 nm, Extra-High Performance, Ø125 µm Cladding	$6.29 Per Meter Volume Pricing	Today
+1			980HP	Single Mode Optical Fiber, 980 - 1600 nm, Ø125 µm Cladding	$6.22 Per Meter Volume Pricing	Today
+1			HI1060-J9	HI1060 with Ø900 µm Jacket, Ø125 µm Cladding	$12.02 Per Meter Volume Pricing	Today
+1			HI1060-100	100 m of HI1060 with Ø900 µm Jacket, Ø125 µm Cladding	$818.58	Today

*** Orders for in-stock bare fiber placed by 3:00 PM ET are eligible for same-day shipment.**

Add To Cart

Single Mode Fiber: 1260 to 1650 nm

This group of fibers enables single mode transmission from 1260 - 1650 nm. The 1310BHP, SM1250G80, 1550BHP, and SM1500G80 fibers have dual-acrylate coatings, while the SM1550P fiber has a polyimide coating for high-temperature performance in the telecom region. For more details on the SM1550P fiber, see the full web presentation here. The SMF-28-J9 fiber has a Ø900 µm tight-buffer Hytrel outer jacket, and is also offered in stocked lengths of 100 m and 1000 m (Item #s SMF-28-100 and SMF-28-1000, respectively). CCC1310-J9 fiber has a Ø900 µm tight-buffer PVC outer jacket and offers enhanced bend insensitivity, which reduces losses. Our SM1250G80 and SM1500G80 fibers also provide enhanced bend insensitivity. The 1550BHP fiber features tight second mode cut-off tolerances, ensuring single mode operation over the full transmission range. DCF4 fiber features a low negative dispersion, allowing it to be used as an effective solution to dispersion problems over short or medium lengths of fiber; see the full web presentation here for details.

Table G6.1 Fiber Specifications					
Item #	Operating Wavelength	Mode Field Diameter[a]	Cladding Diameter	Coating Diameter	Cut-Off Wavelength
SMF-28-J9	1260 - 1625 nm	9.2 ± 0.4 µm @ 1310 nm 10.4 ± 0.5 µm @ 1550 nm	125 ± 0.7 µm	242 ± 5 µm	<1260 nm
CCC1310-J9	1260 - 1625 nm	8.6 ± 0.4 µm @ 1310 nm 9.7 ± 0.5 µm @ 1550 nm	125 ± 0.7 µm	242 ± 5 µm	≤1260 nm
1310BHP	1300 - 1625 nm	8.6 ± 0.5 µm @ 1310 nm 9.7 ± 0.5 µm @ 1550 nm	125 ± 1.0 µm	245 ± 15 µm	1260 ± 30 nm
SM1550P	1310 - 1550 nm	9.0 µm @ 1310 nm	125 +1 / -3 µm	145 ± 5 µm	<1260 nm
SM1250G80	1310 - 1550 nm	8.2 - 9.9 µm @ 1310 nm	80 ± 1 µm	170 ± 10 µm	1150 - 1250 nm
1550BHP	1460 - 1620 nm	9.5 ± 0.5 µm @ 1550 nm	125 ± 1.0 µm	245 ± 15 µm	1400 ± 50 nm
SM1500G80	1520 - 1650 nm	6.0 - 6.8 µm @ 1550 nm	80 ± 1 µm	170 ± 10 µm	1350 - 1520 nm
DCF4	1530 - 1565 nm	8.85 - 9.60 µm @ 1550 nm	125 ± 1.0 µm	250 ± 5 µm	≤1500 nm

Item #	Short-Term Bend Radius	Long-Term Bend Radius	Attenuation (Max)	Proof Test Level	NA	Core Index	Cladding Index
SMF-28-J9	-	-	≤0.32 dB/km @ 1310 nm ≤0.18 dB/km @ 1550 nm	≥100 kpsi (0.7 GN/m^2)	0.14[b]	Proprietary[c]	Proprietary[c]
CCC1310-J9	-	-	≤0.35 dB/km @ 1310 nm ≤0.20 dB/km @ 1550 nm	≥100 kpsi (0.7 GN/m^2)	0.14	1310 nm: 1.4670 1550 nm: 1.4677	-
1310BHP	≥6 mm	≥13 mm	≤0.5 dB/km @ 1310 nm & 1550 nm	≥200 kpsi (1.4 GN/m^2)	0.13	Call[d]	Call[d]
SM1550P	≥13 mm	≥25 mm	<0.7 dB/km[e]	50 kpsi	0.12 ± 0.02	Proprietary[c]	Proprietary[c]
SM1250G80	≥5 mm	≥12 mm (or 38 mm for 25 Year Life)	≤2 dB/km	1% (100 kpsi)	0.11 - 0.13	1310 nm: 1.45094[f] 1550 nm: 1.44813[f]	1310 nm: 1.44680[f] 1550 nm: 1.44399[f]
1550BHP	≥6 mm	≥13 mm	≤0.5 dB/km @ 1550 nm	≥200 kpsi (1.4 GN/m^2)	0.13	Call[d]	Call[d]

SM1500G80	≥5 mm	≥12 mm (or 38 mm for 25 Year Life)	≤0.5 dB/km	1% (100 kpsi)	0.19 - 0.21	1550 nm: 1.45636[g]	1550 nm: 1.44399[g]
DCF4	-	-	≤0.210 dB/km @ 1550 nm	-	-	Proprietary[c]	Proprietary[c]

a. MFD is a nominal, calculated value, estimated at the operating wavelength(s) using a typical value of NA & cut-off wavelength. Please see the *MFD Definition* tab for details.
b. The NA of this fiber is measured at the 1% power level of a one-dimensional far-field scan at 1310 nm.
c. We regret that we cannot provide this proprietary information.
d. Please contact us to learn more about the refractive index of this fiber, as we are not permitted to publish this information on our website.
e. Specified at Operating Wavelength
f. The indices provided are for an NA of 0.11.
g. The index provided is for an NA of 0.19.

Table G6.2 Stock Patch Cables Available with These Fibers	
SMF-28 Ultra Fiber	More [+]
1550BHP Fiber	More [+]

Custom cables are also available. Click here for details.

Based on your currency / country selection, your order will ship from Newton, New Jersey

+1	Qty	Docs	Part Number - Universal		Price	Available
			SMF-28-J9	SMF-28 Ultra with Ø900 µm Jacket, Ø125 µm Cladding	$2.92 Per Meter Volume Pricing	Today
			SMF-28-100	100 m of SMF-28 Ultra with Ø900 µm Jacket, Ø125 µm Cladding	$67.06	Today
			SMF-28-1000	1000 m of SMF-28 Ultra with Ø900 µm Jacket, Ø125 µm Cladding	$602.48	Today
			CCC1310-J9	1260 - 1625 nm Low Bend Loss Fiber with Ø900 µm Jacket, Ø125 µm Cladding	$2.92 Per Meter Volume Pricing	Today
			1310BHP	Select Cut-Off Single Mode Fiber, 1310 - 1625 nm, Ø125 µm Cladding	$6.22 Per Meter Volume Pricing	Today
			SM1550P	Customer Inspired! Single Mode Optical Fiber, 0.12 ± 0.02 NA, 1310 - 1550 nm, Polyimide Coating, Ø125 µm Cladding	$8.10 Per Meter Volume Pricing	Today
			SM1250G80	Customer Inspired! Single Mode Optical Fiber, 0.11 - 0.13 NA, 1310 - 1550 nm, Ø80 µm Cladding	$5.97 Per Meter Volume Pricing	Today
			1550BHP	Single Mode Optical Fiber, 1460 - 1620 nm, Ø125 µm Cladding	$6.22 Per Meter Volume Pricing	Today
			SM1500G80	Customer Inspired! Single Mode Optical Fiber, 0.19 - 0.21 NA, 1520 - 1650 nm, Ø80 µm Cladding	$5.97 Per Meter Volume Pricing	Today
			DCF4	Non-Zero Dispersion-Shifted Fiber, Dispersion: -4.0 ps/nm•km at 1550 nm	$4.68 Per Meter Volume Pricing	Today

*** Orders for in-stock bare fiber placed by 3:00 PM ET are eligible for same-day shipment.**

Add To Cart

Single Mode Fiber: 1850 to 2200 nm

Thorlabs' SM1950 fiber enables single mode transmission from 1850 - 2200 nm. This fiber features a Ge-doped silica core surrounded by a pure silica cladding and a UV-cured acrylate coating. This fiber has exceptional core/cladding concentricity which reduces insertion and bend losses.

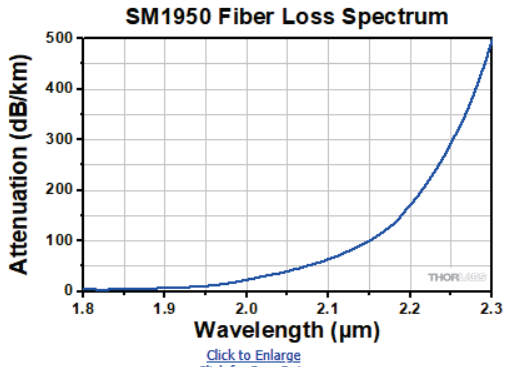
Table G7.1 Fiber Specifications						
Item #	Operating Wavelength	MFD[a]	Core Diameter	Cladding Diameter	Coating Diameter	Cut-Off Wavelength
SM1950	1850 - 2200 nm	8.0 µm @ 1950 nm	7 µm	125 ± 1 µm	245 ± 10 µm	1720 ± 80 nm

Item #	Coating Concentricity	Core-Clad Concentricity	Typical Attenuation	NA	Core Index	Cladding Index
SM1950	<5 µm	<0.5 µm	5 dB/km (0.005 dB/m) @ 1.9 µm	0.20	Call[b]	Call[b]

a. MFD is a nominal, calculated value, estimated at the operating wavelength(s) using a typical value of NA & cut-off wavelength. Please see the *MFD Definition* tab for details.
b. Please contact us to learn more about the refractive index of this fiber, as we are not permitted to publish this information on our website.

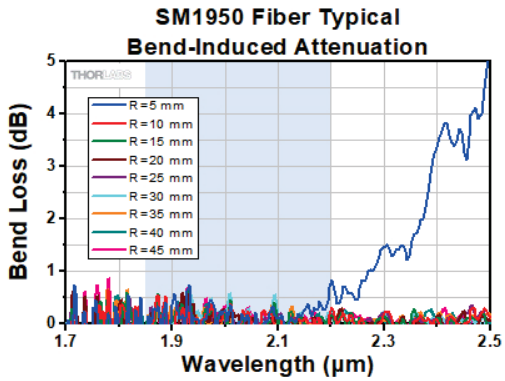
Table G7.2 Stock Patch Cables Available with This Fiber	
SM1950 Fiber	More [+]

Custom cables are also available. Click here for details.



Click to Enlarge
Click for Raw Data

Figure G7.3 This plot contains the measured attenuation for SM1950 fiber across the single mode wavelength range (1850 nm - 2200 nm).



Click to Enlarge
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Figure G7.4 This plot contains the measured attenuation for a single loop of SM1950 fiber at nine different bend radii. The shaded region in the plot denotes the single mode wavelength range (1.85 - 2.2 µm).

Based on your currency / country selection, your order will ship from Newton, New Jersey

+1	Qty	Docs	Part Number - Universal		Price	Available
+1			SM1950	Customer Inspired! Single Mode Optical Fiber, 1850 - 2200 nm, Ø125 µm Cladding	$35.53 Per Meter Volume Pricing	Today

*** Orders for in-stock bare fiber placed by 3:00 PM ET are eligible for same-day shipment.**

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