

# Specialty Fibers

## *Select Sheet* (Ver.9)

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The items listed in this sheets are standard configurations and sizes.  
Other configurations may be available on request.  
Please let us know what we can do to help satisfy your project requirements.



### S series (for UV-VIS)

Model Name	Refractive Index Profile	Core / Cladding Material	Core / Cladding Diameter [ $\mu$ m]	Jacket Diameter [ $\mu$ m]	Attenuation [dB/km]	Coating / Jacket Material	NA	Operation Temperature [°C]	Minimum Bending Radius [mm]
S.200/220	Step Index	SiO <sub>2</sub> (High-OH)/F-SiO <sub>2</sub>	200 / 220	900	$\leq 200$ (@300nm) $\leq 10$ (@800nm)	Silicone / Polyamide	0.22	-20 to 60	44
S.400/440			400 / 440	1100					88
S.600/660			600 / 660	1400					132
S.800/880			800 / 880	1700					176
S.1000/1100			1000 / 1100	2000					220
S.1500/1650			1500 / 1650	2400					330

### SB series (for VIS-NIR)

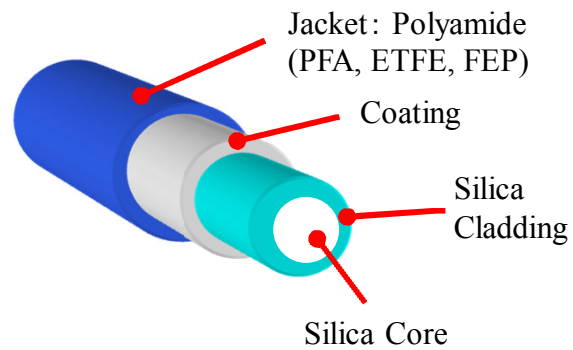
Model Name	Refractive Index Profile	Core / Cladding Material	Core / Cladding Diameter [ $\mu$ m]	Jacket Diameter [ $\mu$ m]	Attenuation [dB/km]	Coating / Jacket Material	NA	Operation Temperature [°C]	Minimum Bending Radius [mm]
S.200/220B	Step Index	SiO <sub>2</sub> (Low-OH)/F-SiO <sub>2</sub>	200 / 220	900	$\leq 10$ (@850nm and @1064nm)	Silicone / Polyamide	0.22	-20 to 60	44
S.400/440B			400 / 440	1100					88
S.600/660B			600 / 660	1400					132
S.800/880B			800 / 880	1700					176
S.1000/1100B			1000 / 1100	2000					220
S.1500/1650B			1500 / 1650	2400					330

### G series (for VIS-NIR)

Model Name	Refractive Index Profile	Core / Cladding Material	Core / Cladding Diameter [ $\mu$ m]	Jacket Diameter [ $\mu$ m]	Attenuation [dB/km]	Coating / Jacket Material	NA	Operation Temperature [°C]	Minimum Bending Radius [mm]
G.200/250	Graded Index	GeO <sub>2</sub> -SiO <sub>2</sub> / SiO <sub>2</sub>	200 / 250	900	$\leq 10$ (@850nm and @1064nm)	Silicone / Polyamide	0.21	-20 to 60	50
G.400/500			400 / 500	1100					100
G.600/750			600 / 750	1400					150
G.800/1000			800 / 1000	1700					200

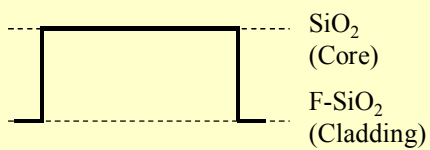
- Other size (Core Diameter, Cladding Diameter) is available
- Jacket color (Polyamide: Standard)
  - S series and G series : Black / SB series : White
  - Other color is available
- Tolerance
  - Core diameter and Cladding diameter :  $\pm 5\%$
- Please contact us for customized products
- PFA, ETFE, FEP, Jacketed Fibers are available
- Minimum Bending Radius is Long Term Bending Radius
- Our products supports RoHS Directive

## Jacketed Fiber Structure

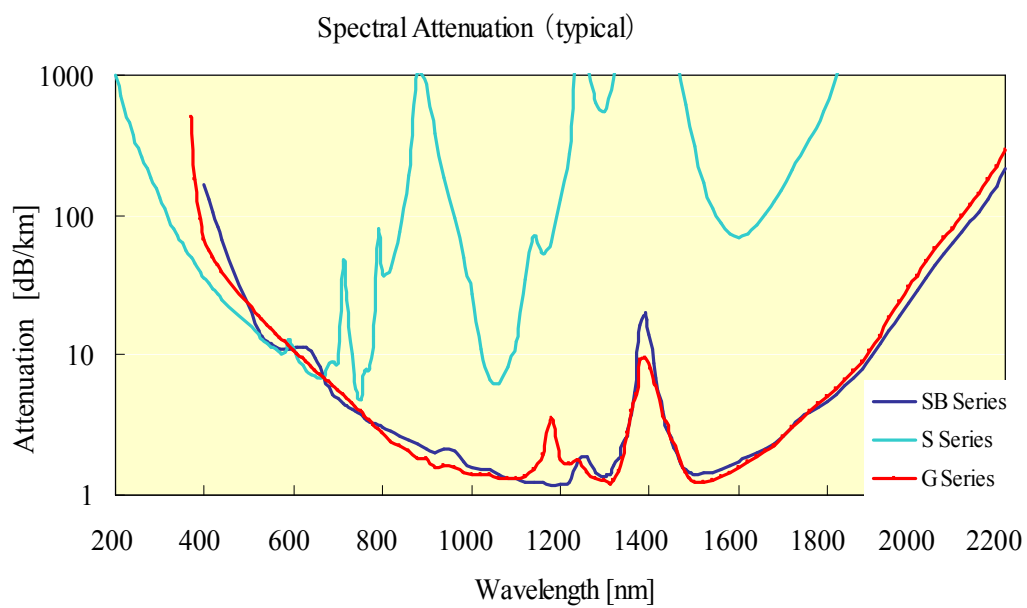
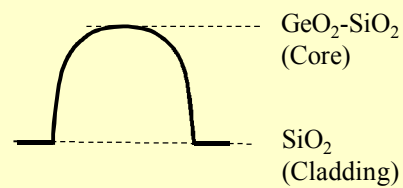


## Refractive Index Profile

### S & SB series



### G series



### S series (for UV-VIS)

Model Name	Refractive Index Profile	Core / Cladding Material	Core / Cladding Diameter [ $\mu\text{m}$ ]	Jacket/ Cord Diameter [ $\mu\text{m}$ ]	Attenuation [dB/km]	Coating/ Jacket/ Cord Material	NA	Operation Temperature [ $^{\circ}\text{C}$ ]	Minimum Bending Radius [mm]
SC.200/220	Step Index	$\text{SiO}_2$ (High-OH)/ F- $\text{SiO}_2$	200 / 220	900 / 2800	$\leq 200$ (@300) $\leq 10$ (@800)	Silicone / Polyamide / PVC	0.22	-20 to 60	44
SC.400/440			400 / 440	1100 / 2800					88
SC.600/660			600 / 660	1400 / 2800					132
SC.800/880			800 / 1000	1700 / 3300					200

### SB series (for VIS-NIR)

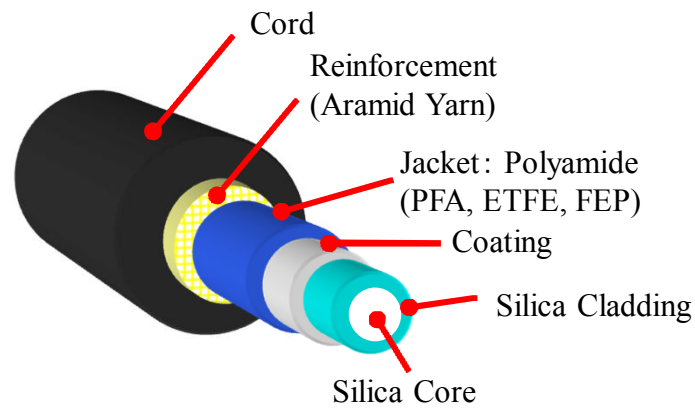
Model Name	Refractive Index Profile	Core / Cladding Material	Core / Cladding Diameter [ $\mu\text{m}$ ]	Jacket/ Cord Diameter [ $\mu\text{m}$ ]	Attenuation [dB/km]	Coating/ Jacket/ Cord Material	NA	Operation Temperature [ $^{\circ}\text{C}$ ]	Minimum Bending Radius [mm]
SC.200/220B	Step Index	$\text{SiO}_2$ (Low-OH)/ F- $\text{SiO}_2$	200 / 220	900 / 2800	$\leq 10$ (@850nm and @1064nm)	Silicone / Polyamide / PVC	0.22	-20 to 60	44
SC.400/440B			400 / 440	1100 / 2800					88
SC.600/660B			600 / 660	1400 / 2800					132
SC.800/880B			800 / 1000	1700 / 3300					200

### G series (for VIS-NIR)

Model Name	Refractive Index Profile	Core / Cladding Material	Core / Cladding Diameter [ $\mu\text{m}$ ]	Jacket/ Cord Diameter [ $\mu\text{m}$ ]	Attenuation [dB/km]	Coating/ Jacket/ Cord Material	NA	Operation Temperature [ $^{\circ}\text{C}$ ]	Minimum Bending Radius [mm]
GC.200/250	Graded Index	$\text{GeO}_2\text{-SiO}_2 / \text{SiO}_2$	200 / 250	900 / 2800	$\leq 10$ (@850nm and @1064nm)	Silicone/ Polyamide/ PVC	0.21	-20 to 60	50
GC.400/500			400 / 500	1100 / 2800					100
GC.600/750			600 / 750	1400 / 2800					150
GC.800/1000			800 / 1000	1700 / 3300					200

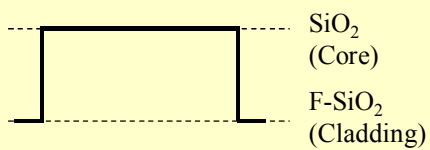
- Other size (Core Diameter, Cladding Diameter) is available
- Jacket color (Polyamide: Standard)  
S series and G series : Black / SB series : White  
Other color is available
- Cord color (PVC: Standard)  
S series and G series : Black / SB series : Light green  
Other color is available
- Tolerance  
Core diameter and Cladding diameter :  $\pm 5\%$
- PFA, ETFE, FEP, Jacketed material are available
- Minimum Bending Radius is Long Term Bending Radius
- Our products supports RoHS Directive
- Please contact us for customized products

## Cord Fiber Structure

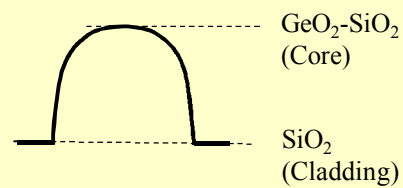


## Refractive Index Profile

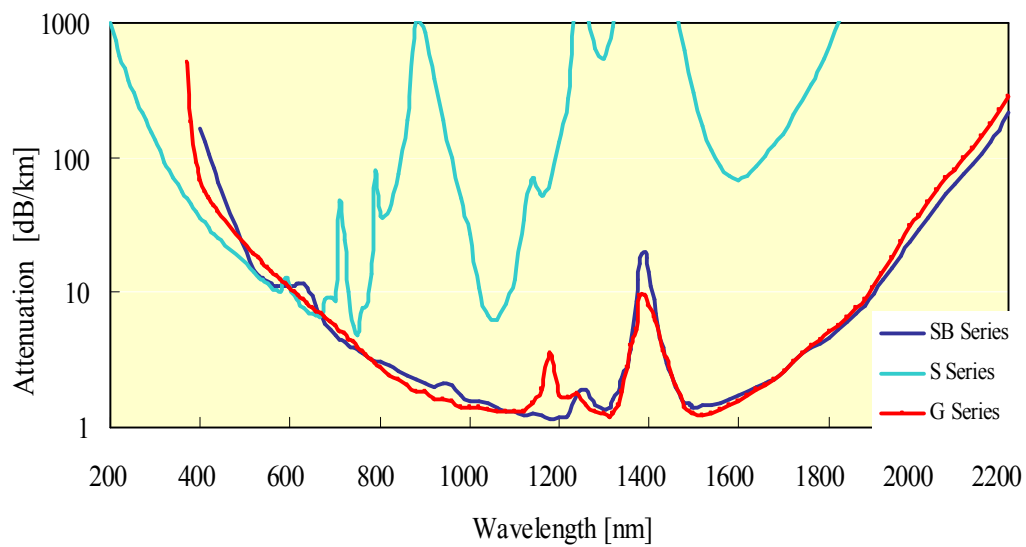
### S & SB series



### G series



Spectral Attenuation (typical)

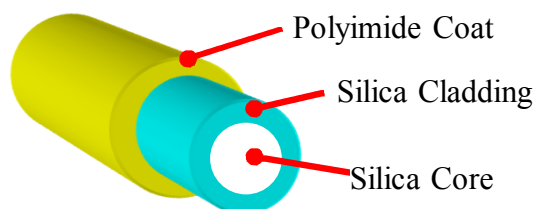


## Large Core Fiber : SB series (for VIS-NIR)

Model Name	Refractive Index Profile	Core / Cladding Material	Core / Cladding Diameter [ $\mu\text{m}$ ]	Coating Diameter [ $\mu\text{m}$ ]	Attenuation [dB/km]	Coating Material	NA	Operation Temperature [ $^{\circ}\text{C}$ ]	Minimum Bending Radius [mm]
S.200/220BPI	Step Index	$\text{SiO}_2$ (Low-OH)/ F- $\text{SiO}_2$	200 / 220	245	$\leq 10$ (@850nm and @1064nm)	Polyimide	0.22	-40 to 300	44
S.300/330BPI			300 / 330	360					66
S.400/440BPI			400 / 440	470					88

- Other size (Core Diameter, Cladding Diameter) is available
- Minimum Bending Radius is Long Term Bending Radius
- Our products supports RoHS Directive
- Please contact us for customized products

## Fiber Structure



Product Name : Specialty Fibers Select Sheet (Ver.9)

History of Revision

DCR no.	Rev.	Content of Revision		Writer	Approved	Revised date
		Item	Description and Reason for change			
B-07D2001			Initial release	Suzaki	Seto	07.05.30
	A		Addition of standard coloring of fiber and cord · Addition of standard tolerance · Part number changes SC.800/1000→SC.800/880 SC.800/1000B→SC.800/880B	Suzaki	Seto	08.06.16
	B	-	Tolerance for both core and cladding diameter of all large core fibers, have been changed to $\pm 5\%$ . (HPCF core and cladding tolerances remains the same @ $\pm 2\%$ .) · Removal of cord and jacket diameter tolerance where applicable.	Lin	Suzaki	09.10.28
	C		Coating diameter of S.1000/1000 and S.1000/1100B are amended (from 1700um to 2000um) S.2000/2100 and S.2000/2100B are eliminated	Sato	Suzaki	12.2.13
	D		HPCF(Polymer cladding fiber), Taper fiber and Radiation Resistant fiber are eliminated.	Sato	Suzaki	13.6.12
	E		· Delete high NA(Type L) of GI fiber	Hu	Toriya	'14.10.28
	F		S.118/125PI and S.200/220PI are eliminated. S.400/440BPI is added.	Suzaki	Seto	16.6.20

**END**