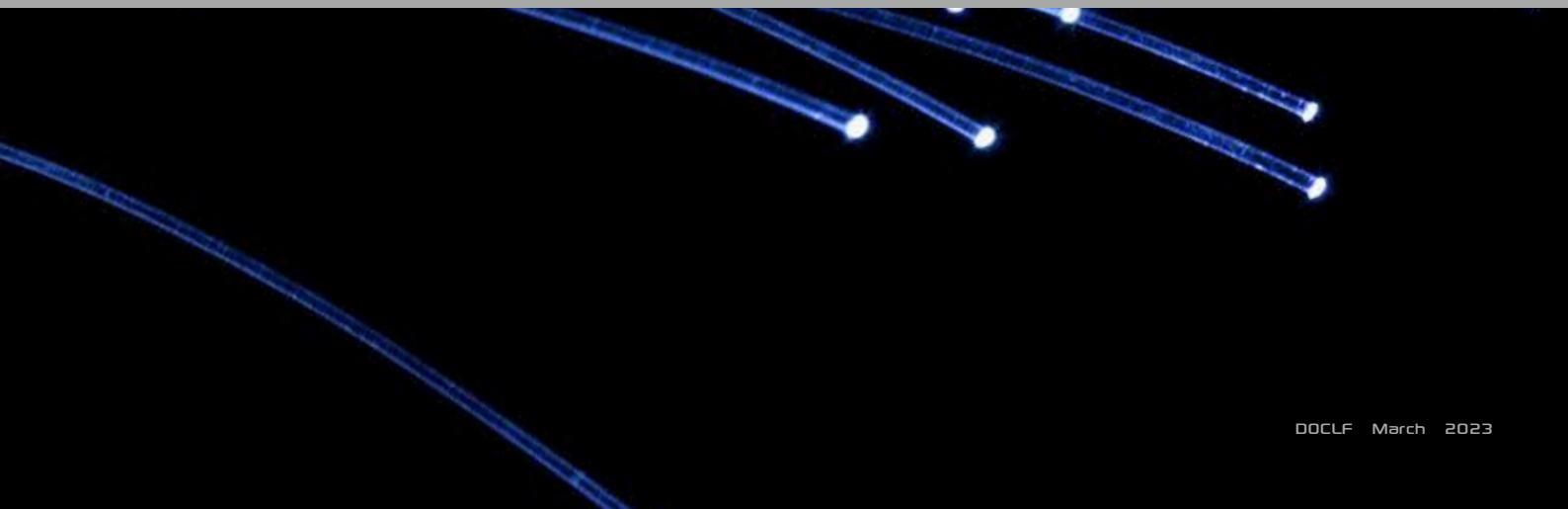


# OPTICAL FIBERS LIST

Standard optical fibers used in our products





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## KEY FEATURES

- 9 µm MFD
- NIR range 1300-1600 nm
- Copper-nickel coating
- Heat-resistant up to 600 °C

## APPLICATIONS

- High-temperature
- High-vacuum

## QUALITY

- ISO 9001:2015

# Metal-coated optical fibers

## Copper-coated 1310/1550 nm

SEDI-ATI offers singlemode copper-coated optical fibers for both high-temperature and high-vacuum applications.

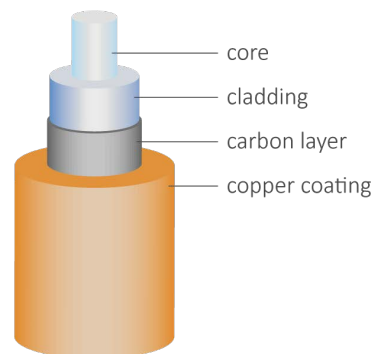
In terms of temperature range, copper alloy coating is limited to 600 °C (short-term < 60 s) / 450 °C (long-term > 60 s) exposure in air, and 600 °C (indefinite) in inert atmosphere or vacuum.

We provide 9/125/165 µm singlemode fibers with copper alloy coatings for near-infrared wavelength range. These are usually in stock.

SEDI-ATI offers connectorization. We can terminate metall-coated optical fibers with most fiber-optic connectors. High-temperature fiber connectors employing heat-resistant adhesive are also available.

SEDI-ATI can provide these singlemode copper-coated optical fibers with heat-resistant cables such as stainless-steel braided jackets (600 °C), up to 250 m lengths.

Please contact us to discuss your specific requirements.



## STANDARD PRODUCT SPECIFICATIONS

Parameter	FSM1300TCU-01	FSM1300TCU-02	Units
Preform	Ge-doped	Rad-hard pure silica core	
Numerical aperture (NA)	0.13		
Mode field diameter (MFD)	9 <sup>±0.5</sup>		μm
Cladding diameter	125 <sup>±1</sup>		μm
Coating diameter	165 <sup>±10</sup>		μm
Core / clad concentricity	< 0.5		μm
Cladding offset	< 5		μm
Wavelength range	1300-1600		nm
Cut-off wavelength	< 1250		nm
Attenuation @1310 nm	9.5		dB/km
Short-term bending radius	> 10		mm
Long-term bending radius	> 25		mm
Primary coating material	copper alloy		
Additional inner layer material	carbon		
Proof test level	100		kpsi
Short-term temperature (<60s)	< 600		°C
Long-term temperature (>60s)	< 450		°C

## KEY FEATURES

- 9 µm MFD @ 1550 nm
- Pure silica core
- Acrylate coating
- High radiation level
- Heat-resistant up to 150 °C

## APPLICATIONS

- Sensor applications in radiative and high-temperature environments

## QUALITY

- ISO 9001:2015

# Rad-hard singlemode fibers

## 0.14 NA acrylate coating

SEDI-ATI and EXAIL (formerly iXblue Photonics) present a novel rad hard singlemode optical fiber for both high-radiation and high-temperature levels.

We provide 9/125/245 µm singlemode fibers with 0.14 NA and with acrylate coating.

In terms of temperature range, the acrylate coating allows operation between -60 °C and +150 °C (long-term > 60 s) exposure in air, inert atmosphere or vacuum.

This pure silica core fiber offers a low radiation induced attenuation of typically 25 dB/km @ 1550 nm for 1 MGy (γ ray).

SEDI-ATI ensures the implementation of the fiber. We can terminate the fiber with most fiber-optic connectors. High-temperature fiber connectors employing heat-resistant adhesive are also available.

SEDI-ATI can provide this rad hard fiber with the appropriate mechanical protection such as heat-resistant cables like stainless-steel braided jackets, and up to 250 m lengths.

This fiber can be used for data transmission, sensing or experiment monitoring.

Please contact us to discuss your specific requirements.



# Radiation resistant singlemode optical fibers

## 0.14 NA acrylate coating

### STANDARD PRODUCT SPECIFICATIONS

Parameter	FSM1550T-02	Units
Numerical aperture (NA)	0.14 <sup>±0.01</sup>	
Mode field diameter (MFD)	9 <sup>±1</sup>	μm
Cladding diameter	125 <sup>±2</sup>	μm
Coating diameter	245 <sup>±15</sup>	μm
Core / clad offset	< 1	μm
Cut-off wavelength	< 1450	nm
Attenuation @ 1550 nm	< 0.6	dB/km
Long-term bending radius	> 25	mm
Core material	pure silica	
Coating material	acrylate	
Proof test level	100	kpsi
Operating temperature range (long term)	-60 / +150	°C

### RADIATION INDUCED ATTENUATION

Typical RIA @ 1550 nm for 1 MGy (γ ray): ~25 dB/km; < 30 dB/km.

### PARTNERSHIP



## KEY FEATURES

- Excellent polarization maintaining properties
- Extremely high birefringence
- Single-mode designs from 400 nm to 1550 nm
- Dual-layer UV acrylate coating
- Low sensitivity to bending-induced attenuation
- Low attenuation
- Low splice loss

## APPLICATIONS

- Polarization-based modulators
- Polarization-sensitive components
- High data rate communications systems
- High performance transmission laser pigtailed
- Raman amplifiers
- Fiber optic sensors, gyroscopes and instrumentation

## QUALITY

- ISO 9001:2015

## Panda PM optical fibers

SEDI-ATI offers high performance Panda polarization maintaining optical fibers. Panda PM fibers are designed with the best polarization maintaining properties, and are the industry standard in the world today.

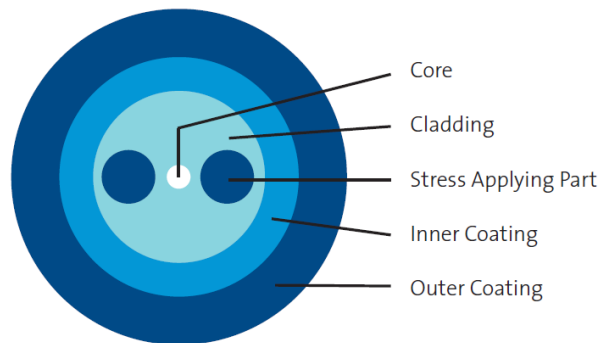
Available in a wide range of standard operating wavelengths from 400 nm to 1550 nm, and with a dual-layer UV acrylate coating, these Panda PM optical fibers are optimal for high performance polarization retaining fiber applications.

The fibers offer low attenuation and excellent birefringence for high performance applications.

These field-proven fibers support high growth applications, and perform well over a wide temperature range.

SEDI-ATI offers connectorization. We can terminate Panda PM optical fibers with most fiber-optic connectors.

Please contact us to discuss your specific requirements.





STANDARD PRODUCT SPECIFICATIONS

Parameter	FMP400	FMP480	FMP630	FMP850	FMP980	FMP1310	FMP1550	Units
Operating wavelength	410	480	630	850	980	1300	1550	nm
Cutoff wavelength	330-400	400-470	520-620	650-800	870-950	1130-1270	1300-1440	nm
Mode-field diameter	3.5 ±0.5	4.5 ±0.5	4.5 ±0.5	5.5 ±0.5	6.6 ±0.5	9.0 ±0.5	10.5 ±0.5	µm
Cladding diameter	125 ±1	125 ±1	125 ±1	125 ±1	125 ±1	125 ±1	125 ±1	µm
Coating diameter	400 ±15	245 ±15	400 ±15	245 ±15	245 ±15	245 ±15	245 ±15	µm
Core / clad offset	≤ 0.5							µm
Beat length range	≤ 1.7	≤ 2.0	≤ 2.0	1.0-2.0	1.5-2.7	2.5-4.0	3.0-5.0	mm
Max. cross talk at 100 m	-30							dB
Typ. cross talk at 4 m	-40							dB
Max. attenuation	≤ 50	30	12	3.0	2.5	1.0	0.5	dB/km
Coating material	UV/UV acrylate							
Proof test level	100							kpsi
Operating temperature range	-40 to +85							°C

## KEY FEATURES

- Low-OH water content
- VIS/NIR range
- 50  $\mu\text{m}$  core
- 0.22 NA
- Copper-nickel coating
- Heat-resistant up to 600°C

## APPLICATIONS

- High-temperature
- High-vacuum

## QUALITY

- ISO 9001:2015

# Metal-coated optical fibers

## Copper-coated 0.22 NA low-OH (IR)

SEDI-ATI offers multimode graded-index copper-coated low-OH optical fibers for both high-temperature and high-vacuum applications.

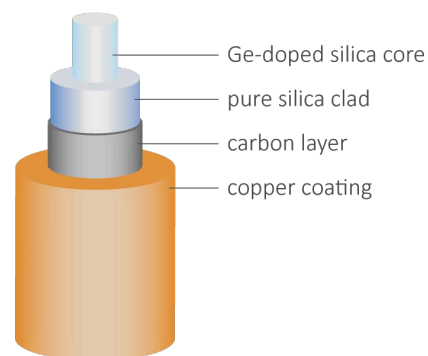
In terms of temperature range, copper alloy coating is limited to 600 °C (short-term < 60 s) / 450 °C (long-term > 60 s) exposure in air, and 600 °C (indefinite) in inert atmosphere or vacuum.

We provide 50/125 and 50/200  $\mu\text{m}$  sizes with copper alloy coatings for visible to near-infrared wavelength range. These are usually in stock.

SEDI-ATI offers connectorization. We can terminate metall-coated optical fibers with most fiber-optic connectors. High-temperature fiber connectors employing heat-resistant adhesive are also available.

SEDI-ATI can provide these multimode graded-index copper-coated low-OH optical fibers with heat-resistant cables such as stainless-steel braided jackets (600 °C), up to 250 m lengths.

Please contact us to discuss your specific requirements.



## STANDARD PRODUCT SPECIFICATIONS

Part number	FGI50TCU-01	FGI50TCU-02	Units
Index profile	graded-index		
Numerical aperture	0.22		
Spectral range	VIS/Near-IR		
Core diameter	50	50	μm
Cladding diameter	125 <sup>±1</sup>	200 <sup>±2</sup>	μm
Coating diameter	165 <sup>±10</sup>	260 <sup>±10</sup>	μm
Core / clad concentricity	< 5	< 5	μm
Cladding offset	< 5	< 5	μm
Wavelength range	600-2000	600-2000	nm
Attenuation @1310 nm	14 dB / km	2.5 dB / km	dB / km
Short-term bending radius	> 10	> 15	mm
Long-term bending radius	> 25	> 40	mm
Core / clad composition	Ge-doped low-OH silica core / pure silica clad		
Primary coating material	copper-nickel alloy		
Additional inner layer material	carbon		
Proof test level	100		kpsi
Short-term temperature (< 60 s)	< 600		°C
Long-term temperature (> 60 s)	< 450		°C

## KEY FEATURES

- 50 µm core
- 0.20 NA
- Acrylate coating
- Low radiation level
- Heat-resistant up to 85 °C

## APPLICATIONS

- Sensor applications in radiative environments

## QUALITY

- ISO 9001:2015

# Rad-hard graded-index fibers

## 0.20 NA acrylate coating

SEDI-ATI and EXAIL (formerly iXblue Photonics) present a novel rad hard multimode graded-index optical fiber for low-radiation levels.

We provide GI 50/125/245 µm multimode fibers with 0.20 NA and with acrylate coating.

In terms of temperature range, the acrylate coating allows operation between -60 °C and +85 °C exposure in air, inert atmosphere or vacuum.

This fiber offers a low radiation induced attenuation (RIA) of typically 5 dB/km @ 1310 nm for 200 Gy (X-ray, 4.6 mGy/s, room temperature).

SEDI-ATI ensures the implementation of the fiber. We can terminate the fiber with most fiber-optic connectors. High-temperature fiber connectors employing heat-resistant adhesive are also available.

SEDI-ATI can provide this rad hard fiber with the appropriate mechanical protection such as heat-resistant cables like stainless-steel braided jackets, and up to 250 m lengths.

This fiber can be used for data transmission, sensing or experiment monitoring.

Please contact us to discuss your specific requirements.



# Radiation resistant graded-index multimode optical fibers

## 0.20 NA acrylate coating

### STANDARD PRODUCT SPECIFICATIONS

Parameter	FGI50-06	Units
Index profile	graded-index	
Numerical aperture (NA)	0.20 <sup>±0.02</sup>	
Core diameter	50 <sup>±2</sup>	µm
Cladding diameter	125 <sup>±2</sup>	µm
Coating diameter	245 <sup>±15</sup>	µm
Core / clad offset	< 1	µm
Attenuation @850 nm	< 3	dB/km
Attenuation @1300 nm	< 1	dB/km
Long-term bending radius	> 25	mm
Coating material	acrylate	
Operating temperature range	-60 / +85	°C
Proof test level	100	kpsi

### RADIATION INDUCED ATTENUATION

Typical RIA @ 1310 nm for 200 Gy (X-ray, 4.6 mGy/s, room temperature): 5 dB/km.

### PARTNERSHIP



## KEY FEATURES

- Low-OH water content
- VIS/NIR transmission
- 50 µm to 105 µm core
- Low NA 0.15 or 0.22
- UV acrylate coating
- Heat-resistant up to 125°C with high-temperature acrylate coating

## APPLICATIONS

- Diode pumping systems
- Raman pumping
- Medical sensing and imaging
- Printing
- SM and MM communications

## QUALITY

- ISO 9001:2015

## Launch optical fibers

### 0.15 NA and 0.22 NA low-OH (IR)

SEDI-ATI offers multimode step-index low-OH launch optical fibers with low 0.15 or 0.22 numerical apertures.

These optical fibers provide an efficient power transmission from Visible through Near-IR wavelengths.

They are particularly well suited to be used as input fibers in power combiners.

These configurations can handle peak power delivery approaching 1 GW/cm<sup>2</sup>.

We provide standard sizes of 50/125 and 105/125 µm with UV acrylate coating.

The acrylate coating offers easy mechanical stripping. High-temperature acrylate coating is also available for high-temperature resistance needs.

SEDI-ATI offers connectorization. We can terminate launch optical fibers with most fiber-optic connectors. High-temperature fiber connectors employing heat-resistant adhesive are also available.

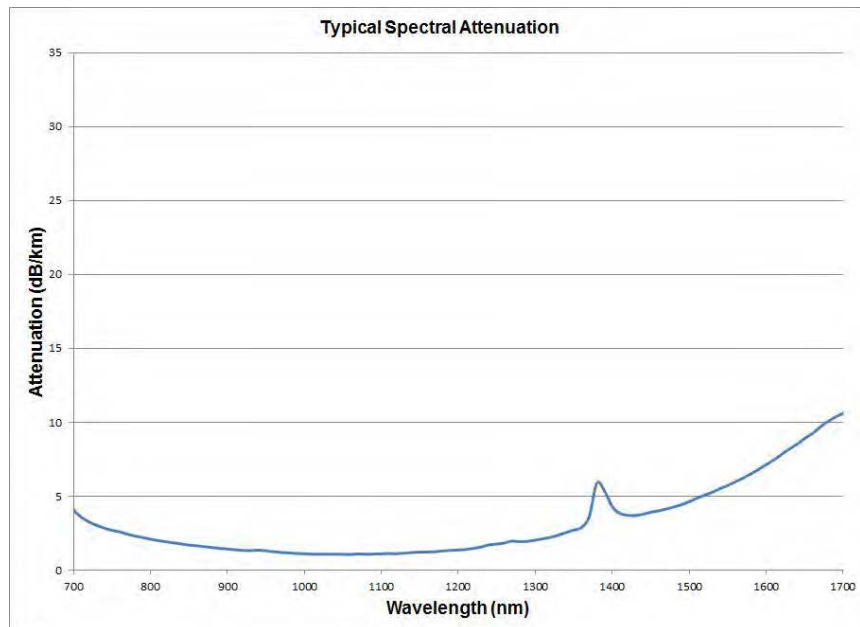
Please contact us to discuss your specific requirements.



## STANDARD PRODUCT SPECIFICATIONS

Part number	FLCH50-01	FLCH105-01	FLCH105-02	FLCH105T-01	Units
Index profile	step-index				
Spectral range	VIS/Near-IR				
Numerical aperture	0.22 <sup>±0.02</sup>	0.15 <sup>±0.015</sup>	0.22 <sup>±0.02</sup>	0.22 <sup>±0.02</sup>	
Core diameter	50 <sup>±3</sup>	105 <sup>±3</sup>	105 <sup>±3</sup>	105 <sup>±3</sup>	μm
Cladding diameter	125 <sup>±2</sup>	125 <sup>±2</sup>	125 <sup>±2</sup>	125 <sup>±2</sup>	μm
Coating diameter	250 <sup>±15</sup>	250 <sup>±15</sup>	250 <sup>±15</sup>	250 <sup>-20/+10</sup>	μm
Core / clad offset	≤ 3	≤ 2	≤ 2	≤ 3	μm
Attenuation @850 nm	≤ 5	≤ 20	≤ 12	-	dB / km
Short-term bending radius	≥ 10	≥ 5	≥ 5	≥ 25	mm
Long-term bending radius	≥ 17	≥ 9	≥ 9	≥ 12	mm
Coating material	dual UV acrylate			high-temperature acrylate	
Operating temperature range	-40 to +85			-55 to +125	°C

## ATTENUATION SPECTRUM



## KEY FEATURES

- Low-OH water content
- 200  $\mu\text{m}$  to 1500  $\mu\text{m}$  core
- 0.37 and 0.43 NA
- ETFE buffer
- Heat-resistant up to 125 °C
- High mechanical performances

## APPLICATIONS

- Communications up to 3 km
- Near-IR spectroscopy
- High-power laser delivery

## QUALITY

- ISO 9001:2015

# Hard-clad silica optical fibers

## 0.37 NA and 0.43 NA low-OH (IR)

SEDI-ATI offers multimode step-index hard-clad silica low-OH optical fibers for demanding applications requiring high-mechanical performances such as industrial data links, factory automation, and long distance communications.

These optical fibers are suitable for use over a very broad wavelength range from the visible spectra to 1300 nm, and provide excellent transmission particularly at 850 nm.

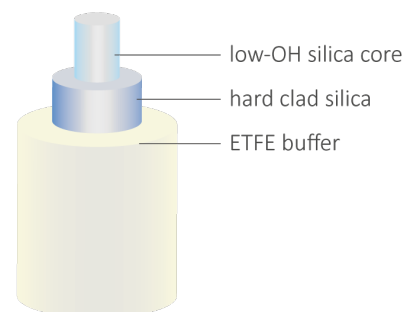
High NA fibers capture more input power with very low bend-induced attenuation, high coupling efficiency.

We provide standard core diameters from 200  $\mu\text{m}$  to 1500  $\mu\text{m}$ .

The ETFE buffer increases the chemical and abrasion resistance of such polymer coated optical fibers, and allows their use in harsh environments up to 125 °C.

SEDI-ATI offers connectorization. We can terminate hard-clad silica optical fibers with most fiber-optic connectors. High-power fiber connectors are also available.

Please contact us to discuss your specific requirements.

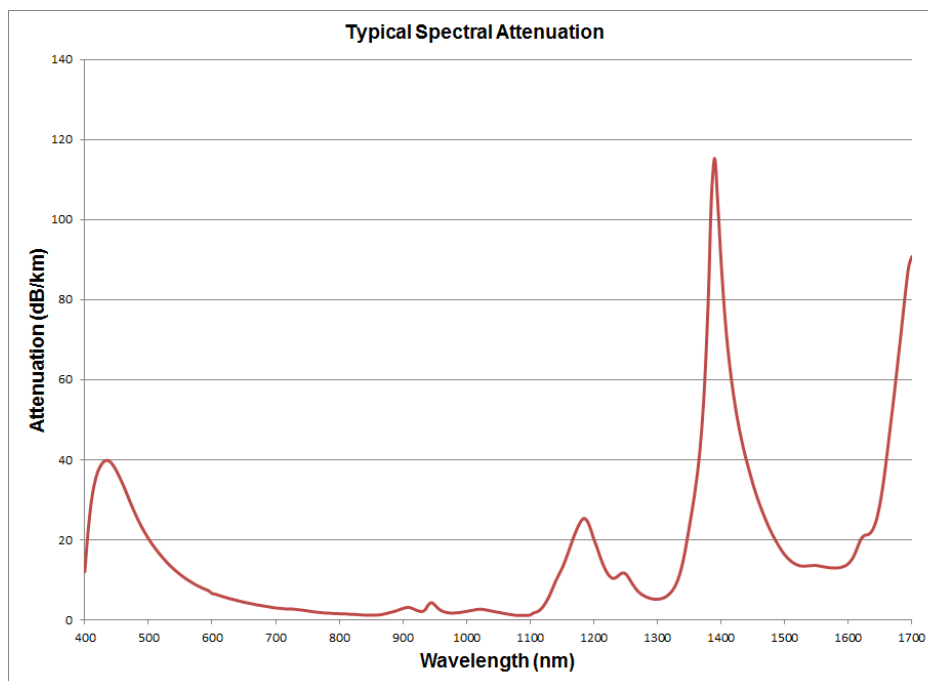




## STANDARD PRODUCT SPECIFICATIONS

Part number	FHCS200-01	FHCS200-03	FHCS300	FHCS400	FHCS600	FHCS800	FHCS1000	FHCS1500	Units	
Index profile	step-index									
Spectral range	VIS/Near-IR									
Numerical aperture	0.43		0.37							
Core diameter	200 ±4	200 ±4	300 ±6	400 ±8	600 ±10	800 ±15	1000 ±15	1500 ±15	µm	
Cladding diameter	230 +0/-10	230 +0/-10	330 +5/-10	430 +5/-10	630 +5/-10	830 ±15	1035 ±15	1535 ±15	µm	
Coating diameter	500 ±30	500 ±30	650 ±30	730 ±30	1040 ±30	1040 ±30	1400 ±50	2000 ±50	µm	
Core / clad offset	≤ 5	≤ 5	≤ 6	≤ 8	≤ 8	≤ 9	≤ 10	≤ 12	µm	
Attenuation @850 nm	≤ 6	≤ 6	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8	≤ 15	dB/km	
Short-term bending radius	≥ 10	≥ 10	≥ 15	≥ 29	≥ 44	≥ 73	≥ 73	≥ 182	mm	
Long-term bending radius	≥ 16	≥ 15	≥ 24	≥ 47	≥ 71	≥ 118	≥ 118	≥ 295	mm	
Core / clad composition	low-OH silica core / hard-clad silica fluoroacrylate									
Buffer material	ETFE									
Op. temperature range	-65 to +125									
	°C									

## ATTENUATION SPECTRUM



## KEY FEATURES

- High-OH water content
- 200 µm to 940 µm core
- 0.22 NA
- ETFE buffer
- Heat-resistant up to 125 °C

## APPLICATIONS

- Illumination
- Laser surgery
- Radiation analysis
- Sensors
- UV fluorescence
- UV spectroscopy

## QUALITY

- ISO 9001:2015

# All silica optical fibers

## 0.22 NA high-OH (UV)

SEDI-ATI offers multimode step-index all silica high-OH optical fibers for demanding applications requiring a high damage threshold and high-performance optical properties.

These optical fibers provide an efficient power transmission in the wavelength range from UV through visible light.

They are particularly well suited for high-power laser delivery systems, UV spectroscopy, UV fluorescence, and industrial sensors.

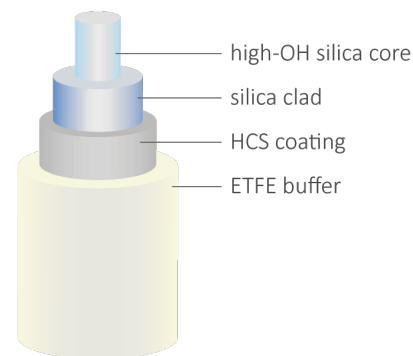
We provide standard core diameters from 200 µm to 940 µm.

These fibers have a pure silica high-OH core and a silica cladding. They are protected by a polymer coating HCS type to increase their mechanical resistance and optimize the transmission of cladding modes.

Finally, the ETFE buffer increases the chemical and abrasion resistance of such optical fibers, and allows their use in harsh environments up to 125 °C.

SEDI-ATI offers connectorization. We can terminate all silica optical fibers with most fiber-optic connectors. High-power fiber connectors are also available.

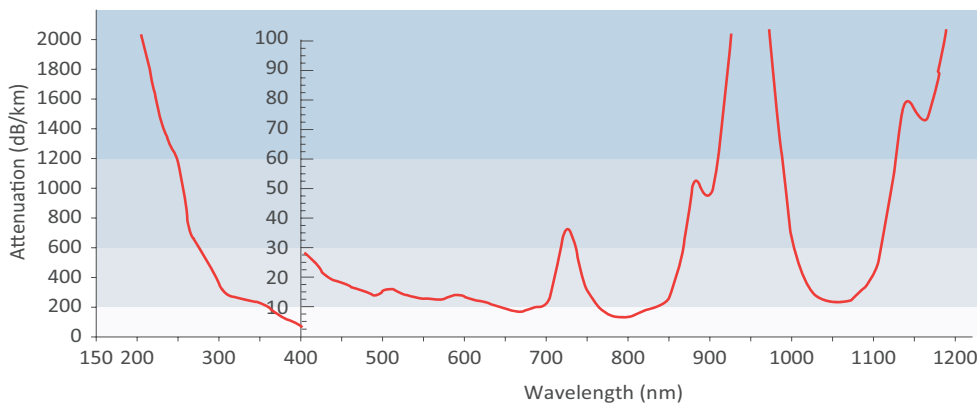
Please contact us to discuss your specific requirements.



## STANDARD PRODUCT SPECIFICATIONS

Part number	FU200	FU365	FU400	FU550	FU800	FU940	Units
Index profile	step-index						
Spectral range	UV						
Numerical aperture	0.22						
Core diameter	200 ±5	365 ±10	400 ±10	550 ±12	800 ±15	940 ±15	µm
Cladding diameter	240 ±5	400 ±10	480 ±10	600 ±10	880 ±15	1000 ±15	µm
Coating diameter	260 ±5	430 ±5/-10	515 ±10	630 ±10	910 ±15	1035 ±15	µm
Buffer diameter	375 ±30	730 ±30	830 ±50	750 ±30	1200 ±50	1400 ±50	µm
Core / clad offset	≤ 7	≤ 9	≤ 9	≤ 9	≤ 9	≤ 11	µm
Attenuation @820 nm	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	dB / km
Short-term bending radius	≥ 9	≥ 29	≥ 35	≥ 58	≥ 73	≥ 73	mm
Long-term bending radius	≥ 14	≥ 47	≥ 57	≥ 94	≥ 118	≥ 118	mm
Core / clad composition	high-OH silica core / silica clad						
Coating material	hard-clad silica						
Buffer material	ETFE						
Operating temperature range	-65 to +125						°C

## ATTENUATION SPECTRUM



λ (nm)	Source	dB / m
248	Krypton	1,1
308	Excimer	0,27
488	Blue Argon	0,013
515	Green Argon	0,014
532	KTP	0,013
647	Red Krypton	0,008
850	LED	0,013
1064	Nd YAG	0,009

## KEY FEATURES

- Low-OH water content
- 200 µm to 940 µm core
- 0.22 NA
- ETFE buffer
- Heat-resistant up to 125 °C

## APPLICATIONS

- Aircraft/industrial cabling
- Engine controls
- High-power laser delivery
- Laser surgery
- Laser welding and cutting
- Near-IR spectroscopy
- Radiation analysis
- Sensing

## QUALITY

- ISO 9001:2015

# All silica optical fibers

## 0.22 NA low-OH (IR)

SEDI-ATI offers multimode step-index all silica low-OH optical fibers for demanding applications requiring a high damage threshold and high-performance optical properties.

These optical fibers provide an efficient power transmission in the near-IR wavelengths.

They are particularly well suited for high-power laser delivery systems, NIR spectroscopy, laser surgery, and other medical and industrial applications.

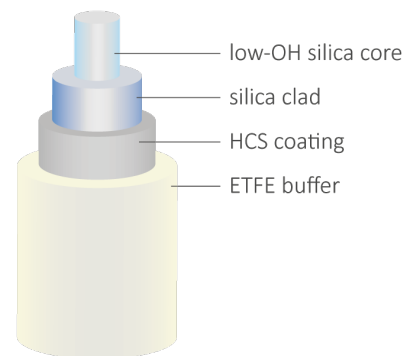
We provide standard core diameters from 200 µm to 940 µm.

These fibers have a pure silica low-OH core and a silica cladding. They are protected by a polymer coating HCS type to increase their mechanical resistance and optimize the transmission of cladding modes.

Finally, the ETFE buffer increases the chemical and abrasion resistance of such optical fibers, and allows their use in harsh environments up to 125 °C.

SEDI-ATI offers connectorization. We can terminate all silica optical fibers with most fiber-optic connectors. High-power fiber connectors are also available.

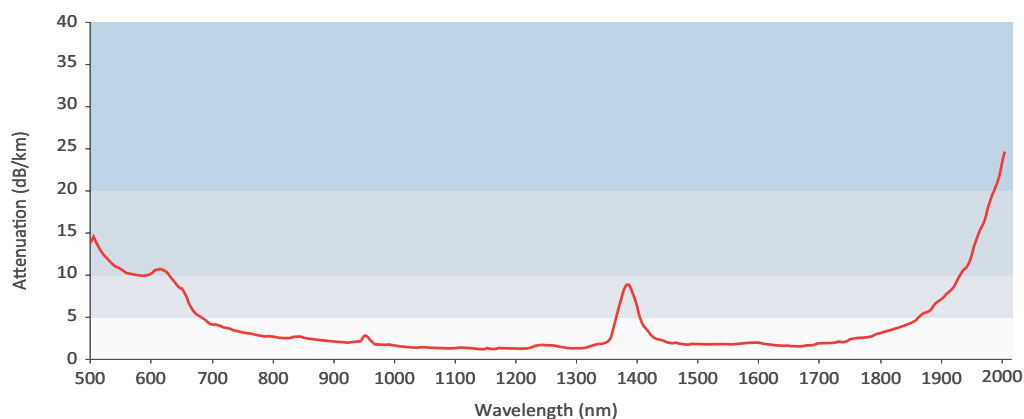
Please contact us to discuss your specific requirements.



## STANDARD PRODUCT SPECIFICATIONS

Part number	FI200	FI365	FI400	FI550	FI600	FI940	Units
Index profile	step-index						
Spectral range	VIS/Near-IR						
Numerical aperture	0.22						
Core diameter	200 $\pm 5$	365 $\pm 10$	400 $\pm 10$	550 $\pm 12$	600 $\pm 15$	940 $\pm 15$	$\mu\text{m}$
Cladding diameter	240 $\pm 5$	400 $\pm 10$	480 $\pm 10$	600 $\pm 10$	660 $\pm 15$	1000 $\pm 15$	$\mu\text{m}$
Coating diameter	260 $\pm 5$	430 $^{+5/-10}$	515 $\pm 10$	630 $\pm 10$	690 $\pm 15$	1035 $\pm 15$	$\mu\text{m}$
Buffer diameter	375 $\pm 30$	730 $\pm 30$	830 $\pm 50$	750 $\pm 30$	1140 $\pm 30$	1400 $\pm 50$	$\mu\text{m}$
Core / clad offset	$\leq 7$	$\leq 9$	$\leq 9$	$\leq 9$	$\leq 9$	$\leq 11$	$\mu\text{m}$
Attenuation @850 nm	$\leq 8$	$\leq 8$	$\leq 10$	$\leq 8$	$\leq 8$	$\leq 8$	dB / km
Short-term bending radius	$\geq 9$	$\geq 29$	$\geq 35$	$\geq 58$	$\geq 60$	$\geq 73$	mm
Long-term bending radius	$\geq 14$	$\geq 47$	$\geq 57$	$\geq 94$	$\geq 100$	$\geq 118$	mm
Core / clad composition	low-OH silica core / silica clad						
Coating material	hard-clad silica						
Buffer material	ETFE						
Operating temperature range	-65 to +125						$^{\circ}\text{C}$

## ATTENUATION SPECTRUM



$\lambda$ (nm)	Source	dB/km
532	KTP	12
755	Alexandrite	4
850	LED	3
1093	Cr MgF	2
1300	Laser diode	2
1550	Laser diode	2
2010	Thulium	26
2100	Ho:YAG	70

## KEY FEATURES

- Broad spectrum 275-2100 nm
- 50  $\mu\text{m}$  to 600  $\mu\text{m}$  core
- 0.22 NA
- Polyimide coating
- Heat-resistant up to 300°C

## APPLICATIONS

- High-temperature
- High-vacuum
- Spectroscopy

## QUALITY

- ISO 9001:2015

# Broadband optical fibers

## 0.22 NA PY coating

SEDI-ATI offers multimode step-index broadband optical fibers for high-temperature, astronomy and spectroscopy applications.

In terms of temperature range, the polyimide coating is limited to 300 °C exposure.

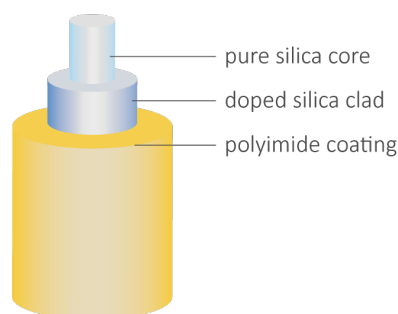
This fiber is designed to operate over a very broad wavelength range from 275 nm to 2100 nm. It is solarization resistant down to 275 nm and has good UV, VIS and NIR transmission.

We provide standard core diameters from 50  $\mu\text{m}$  to 600  $\mu\text{m}$ .

SEDI-ATI offers connectorization. We can terminate the fibers with most fiber-optic connectors. High-temperature fiber connectors employing heat-resistant adhesive are also available.

SEDI-ATI can provide these multimode step-index broadband optical fibers with heat-resistant cables such as stainless-steel braided jackets (600 °C), up to 250 m lengths.

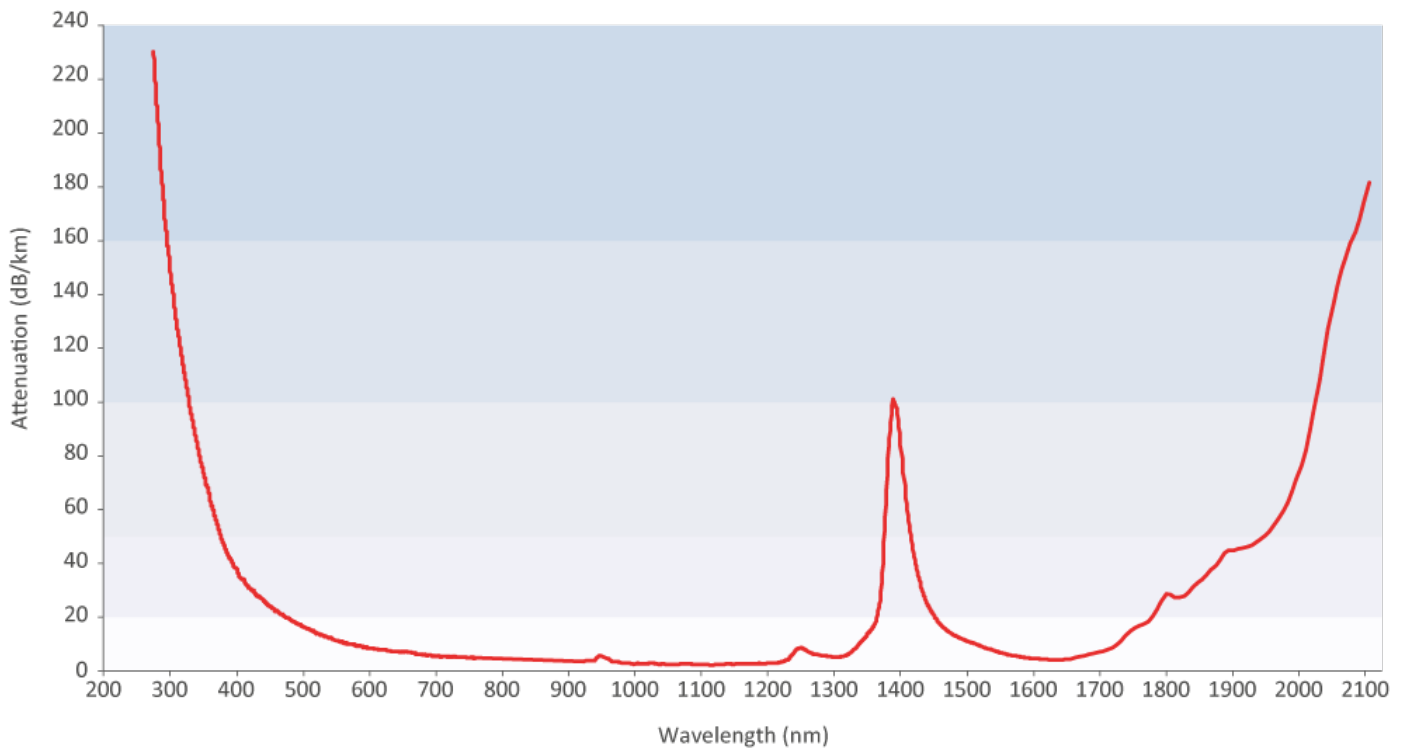
Please contact us to discuss your specific requirements.



## STANDARD PRODUCT SPECIFICATIONS

Part number	FLB50T	FLB100T-01	FLB100T-02	FLB200T-01	FLB200T-02	FLB400T	FLB600T	Units
Index profile	step-index							
Wavelength range	275-2100							nm
Numerical aperture	0.22 $\pm$ 0.02							
Core diameter	50 $\pm$ 2	100 $\pm$ 3	100 $\pm$ 3	200 $\pm$ 4	200 $\pm$ 4	400 $\pm$ 8	600 $\pm$ 10	$\mu$ m
Cladding diameter	70 $\pm$ 2	120 $\pm$ 3	140 $\pm$ 3	220 $\pm$ 4	240 $\pm$ 4	440 $\pm$ 9	660 $\pm$ 10	$\mu$ m
Coating diameter	85 $\pm$ 3	140 $\pm$ 4	170 $\pm$ 5	239 $\pm$ 5	275 $\pm$ 5	480 $\pm$ 7	710 $\pm$ 10	$\mu$ m
Coating concentricity	< 3							$\mu$ m
Short-term bending radius	7	10	15	20	25	70	100	mm
Long-term bending radius	10	15	20	30	35	115	150	mm
Core / clad composition	pure silica core / doped silica clad							
Coating material	Polyimide							
Operating temperature range	-65 to +300							$^{\circ}$ C

## ATTENUATION SPECTRUM



## KEY FEATURES

- Superior radiation resistance
- High-OH water content
- UV-VIS-NIR transmission
- 0.22 NA
- 100 µm to 600 µm core
- Polyimide coating
- Heat-resistant up to 300°C

## APPLICATIONS

- UV spectroscopy
- Lithography
- Excimer laser delivery systems

## QUALITY

- ISO 9001:2015

## Solarization resistant optical fibers

### 0.22 NA high-OH (UV) PY coating

SEDI-ATI offers multimode step-index solarization resistant high-OH optical fibers for deep-UV applications.

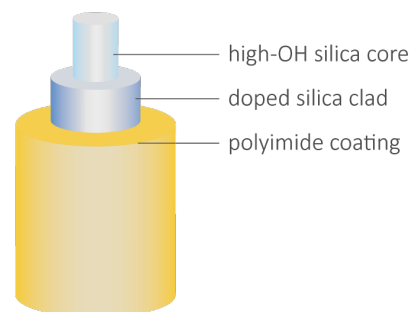
Indeed, these fibers are not affected by the problem of premature ageing induced by UV exposure.

The SR fibers provide excellent transmission in the UV range, and the polyimide coating increases the performances of such fibers particularly for high-temperature applications up to 300 °C.

We provide standard sizes of 100/110, 200/220, 400/440 and 600/660 µm with polyimide coatings.

SEDI-ATI offers connectorization. We can terminate solarization resistant fibers with most fiber-optic connectors. High-temperature fiber connectors employing heat-resistant adhesive are also available.

Please contact us to discuss your specific requirements.





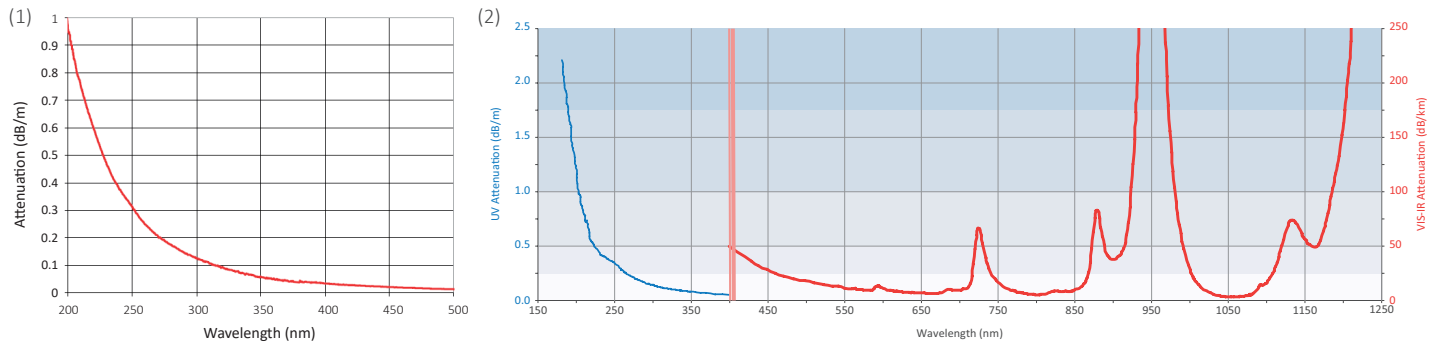
# Solarization resistant optical fibers

## 0.22 NA high-OH (UV) PY coating

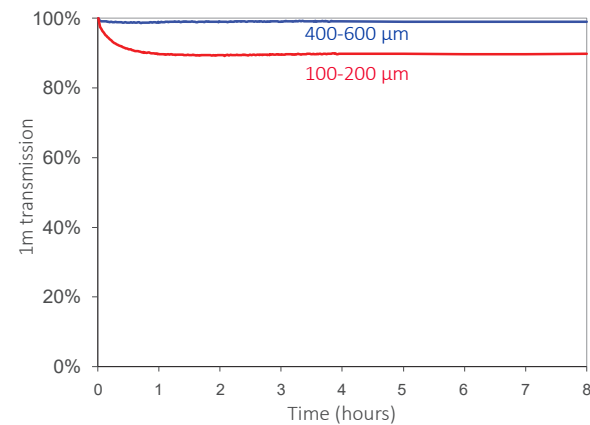
### STANDARD PRODUCT SPECIFICATIONS

Part number	FSR100T	FSR200T	FSR400T	FSR600T	Units
Index profile	step-index				
Numerical aperture	0.22 ±0.02				
Spectral range	UV range only <sup>(1)</sup>		180-1150 <sup>(2)</sup>		nm
Core diameter	100 ±3	200 ±4	400 ±8	600 ±10	µm
Cladding diameter	110 ±3	220 ±4	440 ±9	660 ±10	µm
Coating diameter	124 ±3	239 ±5	480 ±7	710 ±10	µm
Coating concentricity					µm
Short-term bending radius	10	20	70	20	mm
Long-term bending radius	15	30	115	30	mm
Core / clad composition	high-OH silica core / doped silica clad				
Coating material	Polyimide				
Operating temperature range	-65 to +300, intermittent up to +400				°C

### ATTENUATION SPECTRUM



### 1 M TRANSMISSION



## KEY FEATURES

- High-OH water content
- UV/VIS range
- 100 µm to 600 µm core
- 0.22 NA
- Copper-nickel coating
- Heat-resistant up to 600°C

## APPLICATIONS

- High-temperature
- High-vacuum

## QUALITY

- ISO 9001:2015

# Metal-coated optical fibers

## Copper-coated 0.22 NA high-OH (UV)

SEDI-ATI offers multimode step-index copper-coated high-OH optical fibers for both high-temperature and high-vacuum UV/VIS applications.

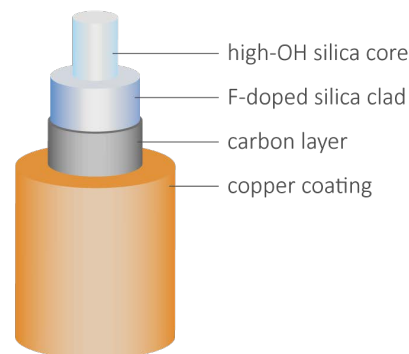
In terms of temperature range, copper alloy coating is limited to 600 °C (short-term < 60 s) / 450 °C (long-term > 60 s) exposure in air, and 600 °C (indefinite) in inert atmosphere or vacuum.

We provide standard sizes of 100/110, 200/220, 400/440 and 600/660 µm with copper alloy coatings. These are usually in stock.

SEDI-ATI offers connectorization. We can terminate metall-coated optical fibers with most fiber-optic connectors. High-temperature fiber connectors employing heat-resistant adhesive are also available.

SEDI-ATI can provide these multimode step-index copper-coated high-OH optical fibers with heat-resistant cables such as stainless-steel braided jackets (600 °C), up to 250 m lengths.

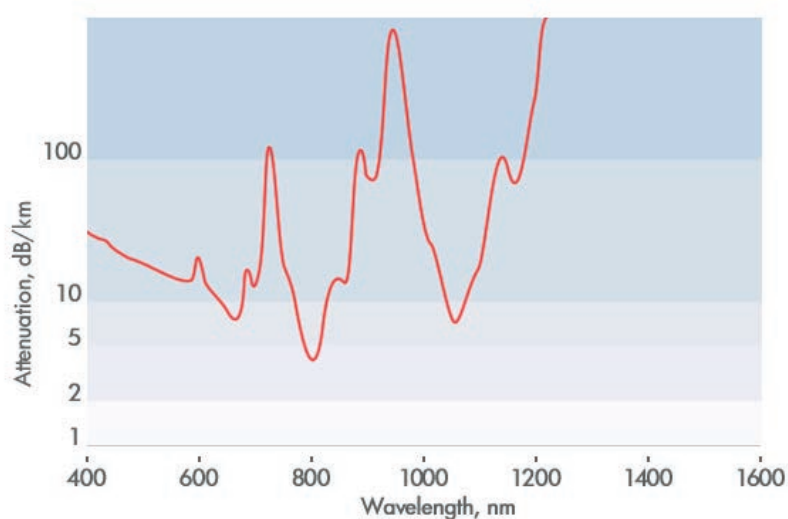
Please contact us to discuss your specific requirements.



## STANDARD PRODUCT SPECIFICATIONS

Part number	FU100TCU	FU200TCU	FU400TCU	FU600TCU	Units
Index profile	step-index				
Spectral range	0.22				
Numerical aperture	UV/VIS				
Core diameter	100 <sup>±2</sup>	200 <sup>±3</sup>	400 <sup>±5</sup>	600 <sup>±8</sup>	μm
Cladding diameter	110 <sup>±2</sup>	220 <sup>±3</sup>	440 <sup>±5</sup>	660 <sup>±8</sup>	μm
Coating diameter	145 <sup>±10</sup>	270 <sup>±10</sup>	535 <sup>±10</sup>	745 <sup>±15</sup>	μm
Core / clad concentricity	< 5	< 5	< 5	< 5	μm
Cladding offset	< 5	< 5	< 5	< 5	μm
Bending radius	> 20	> 40	> 70	> 100	mm
Core / clad composition	high-OH silica core / fluorine-doped silica clad				
Primary coating material	copper alloy				
Additional inner layer material	carbon				
Proof test level	100				kpsi
Short-term temperature (< 60 s)	< 600				°C
Long-term temperature (> 60 s)	< 450				°C

## ATTENUATION SPECTRUM



## KEY FEATURES

- Low-OH water content
- VIS/NIR ranges
- 100 µm to 600 µm core
- 0.22 NA
- Copper-nickel coating
- Heat-resistant up to 600°C

## APPLICATIONS

- High-temperature
- High-vacuum

## QUALITY

- ISO 9001:2015

# Metal-coated optical fibers

## Copper-coated 0.22 NA low-OH (IR)

SEDI-ATI offers multimode step-index copper-coated low-OH optical fibers for both high-temperature and high-vacuum VIS/Near-IR applications.

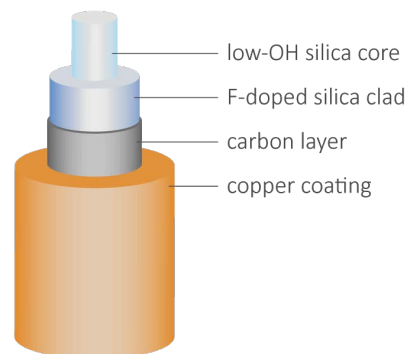
In terms of temperature range, copper alloy coating is limited to 600 °C (short-term < 60 s) / 450 °C (long-term > 60 s) exposure in air, and 600 °C (indefinite) in inert atmosphere or vacuum.

We provide standard sizes of 100/110, 200/220, 400/440 and 600/660 µm with copper alloy coatings. These are usually in stock.

SEDI-ATI offers connectorization. We can terminate metall-coated optical fibers with most fiber-optic connectors. High-temperature fiber connectors employing heat-resistant adhesive are also available.

SEDI-ATI can provide these multimode step-index copper-coated low-OH optical fibers with heat-resistant cables such as stainless-steel braided jackets (600 °C), up to 250 m lengths.

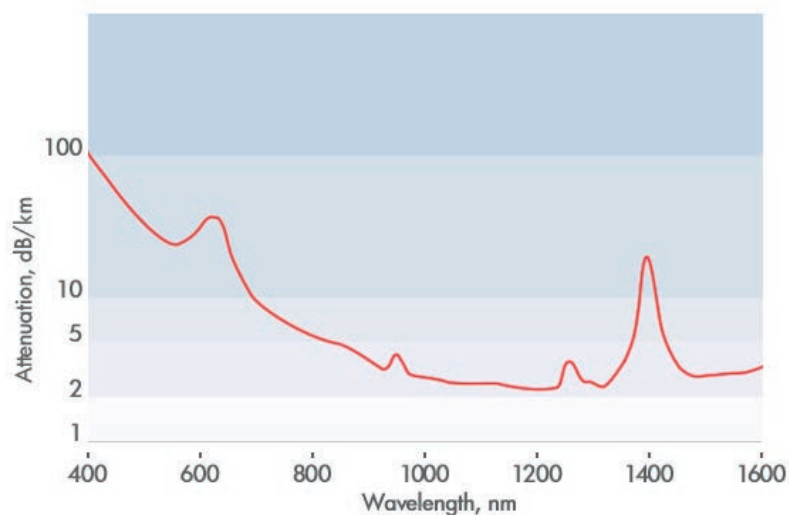
Please contact us to discuss your specific requirements.



## STANDARD PRODUCT SPECIFICATIONS

Part number	FI100TCU-02	FI100TCU-01	FI200TCU	FI400TCU	FI600TCU	Units
Index profile	step-index					
Numerical aperture	0.22					
Spectral range	VIS/Near-IR super Rad-Hard	VIS/Near-IR				
Core diameter	100 <sup>±2</sup>	100 <sup>±2</sup>	200 <sup>±3</sup>	400 <sup>±5</sup>	600 <sup>±8</sup>	μm
Cladding diameter	110 <sup>±2</sup>	110 <sup>±2</sup>	220 <sup>±3</sup>	440 <sup>±5</sup>	660 <sup>±8</sup>	μm
Coating diameter	165 <sup>±10</sup>	165 <sup>±10</sup>	270 <sup>±10</sup>	535 <sup>±10</sup>	745 <sup>±15</sup>	μm
Core / clad concentricity	> 20	> 20	> 40	> 70	> 100	μm
Cladding offset	< 5	< 5	< 5	< 5	< 5	μm
Bending radius	> 20	> 20	> 40	> 70	> 100	mm
Core / clad composition	low-OH silica core / fluorine-doped silica clad					
Primary coating material	copper alloy					
Additional inner layer material	carbon					
Proof test level	100					kpsi
Short-term temperature (< 60 s)	< 600					°C
Long-term temperature (> 60 s)	< 450					°C

## ATTENUATION SPECTRUM





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