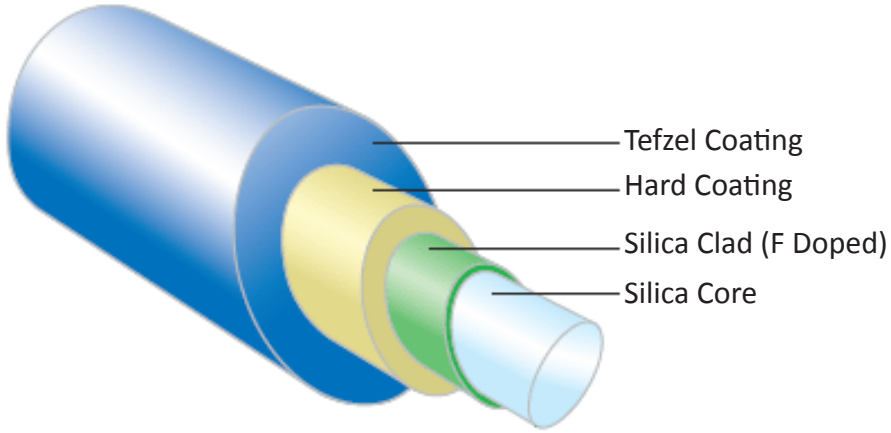
Hard Coat Fiber
(Low & High OH)
Anhydroguide™ (AFSH) & Superguide™ (SFSH)

Fiber Type:
Step Index Multimode

Fiber Construction:
Silica Core/ Silica Clad/ Hard Polymer Coated/ Polymer Outer Coated Fiber

Trade Name:
Anhydroguide™ VIS-IR (Low OH) 300nm – 2400nm

Superguide™ UV-VIS (High OH) 190nm – 1250nm



Hard Coat Fiber

Fiberguide's Silica Core/Silica Clad/Hard Polymer Coated/Polymer Outer Coated fibers are similar to the Silica Core/Silica Clad/Polymer Coated Fiber, except there is an added layer of hard polymer on top of the silica cladding. This hard coat serves as stable buffer layer that ensures a sufficient bond between the silica cladding and the polymer outer coating, making these fibers the ideal choice for a variety of medical applications.

FIBER SPECIFICATIONS

- Step Index Multimode
- Pure Fused Silica Core / Fluorine Doped Silica Cladding
- Hard Polymer Buffer Coating Layer
- Core / Cladding Sizes: 200/240µm to 910/1000µm
- Numerical Aperture (NA): 0.22
- Recommended Bend Radius:
  - o Short Term: 100 X Clad Diameter
  - o Long Term: 200 X Clad Diameter

Please note that these figures represent best practice recommendations. In applications where tighter bends are required, Fiberguide can assist you in estimating what impact they may have on fiber reliability.

- 100% Proof Test Using 4-Axis Bend Method
- Tefzel (Natural & Blue) certified to NAMSA Class VI

Applications:

- Bio-Analytical Sensing
- Medical Laser
- Aerospace/Defense
- Spectroscopy
- Nuclear Plasma Sensing
- Industrial Laser Systems

Headquarters & Fiber Manufacturing
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Contact Us
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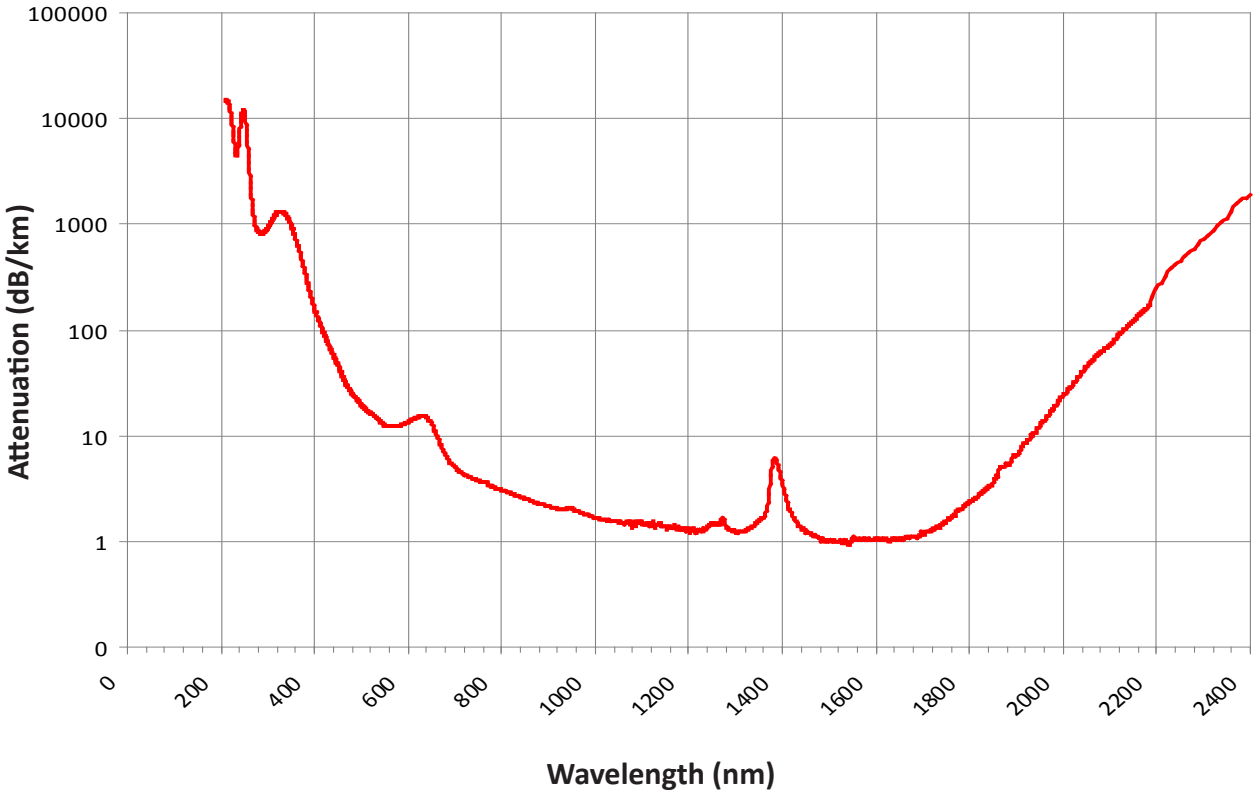
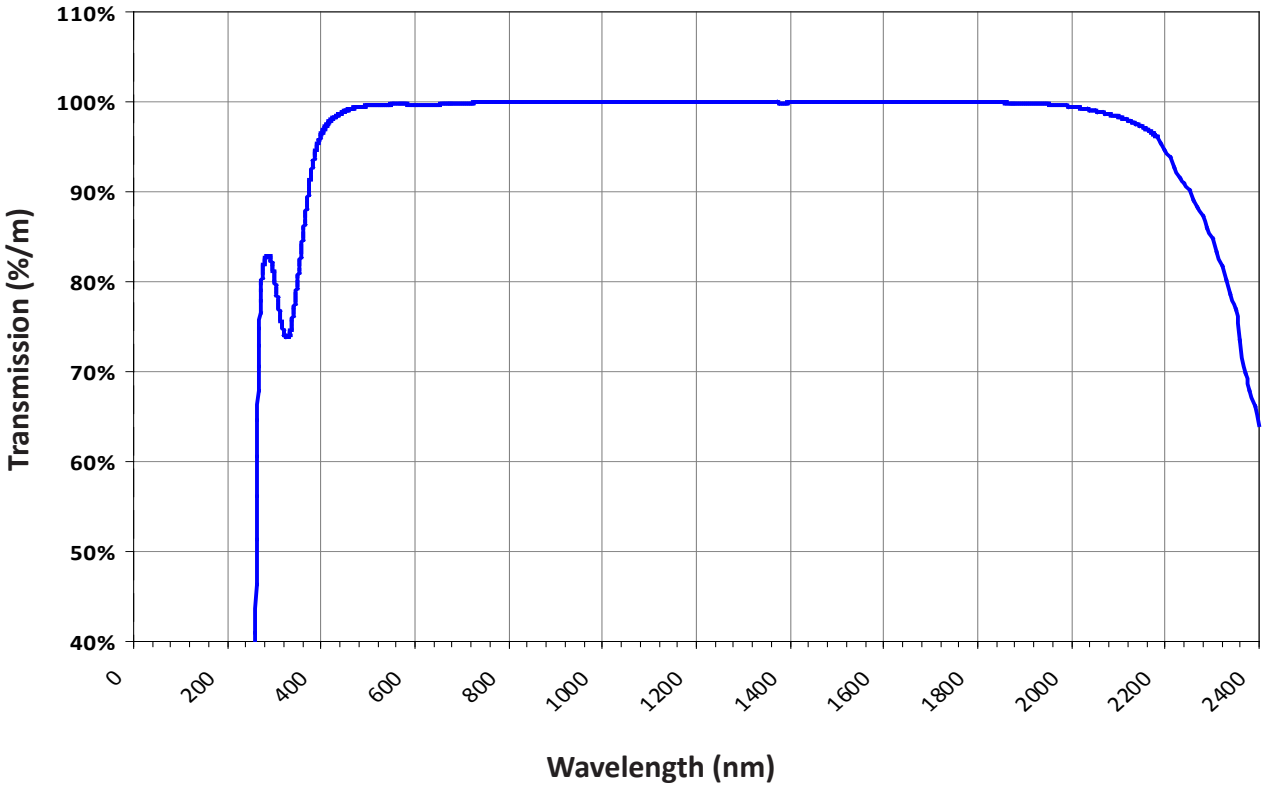
Fiber Type: Anhydroguide™ Pure Fused Silica Core/ Fluorine Doped Silica Cladding - Step Index Multimode
Wavelength: VIS-IR (Low OH): 300 nm - 2400 nm





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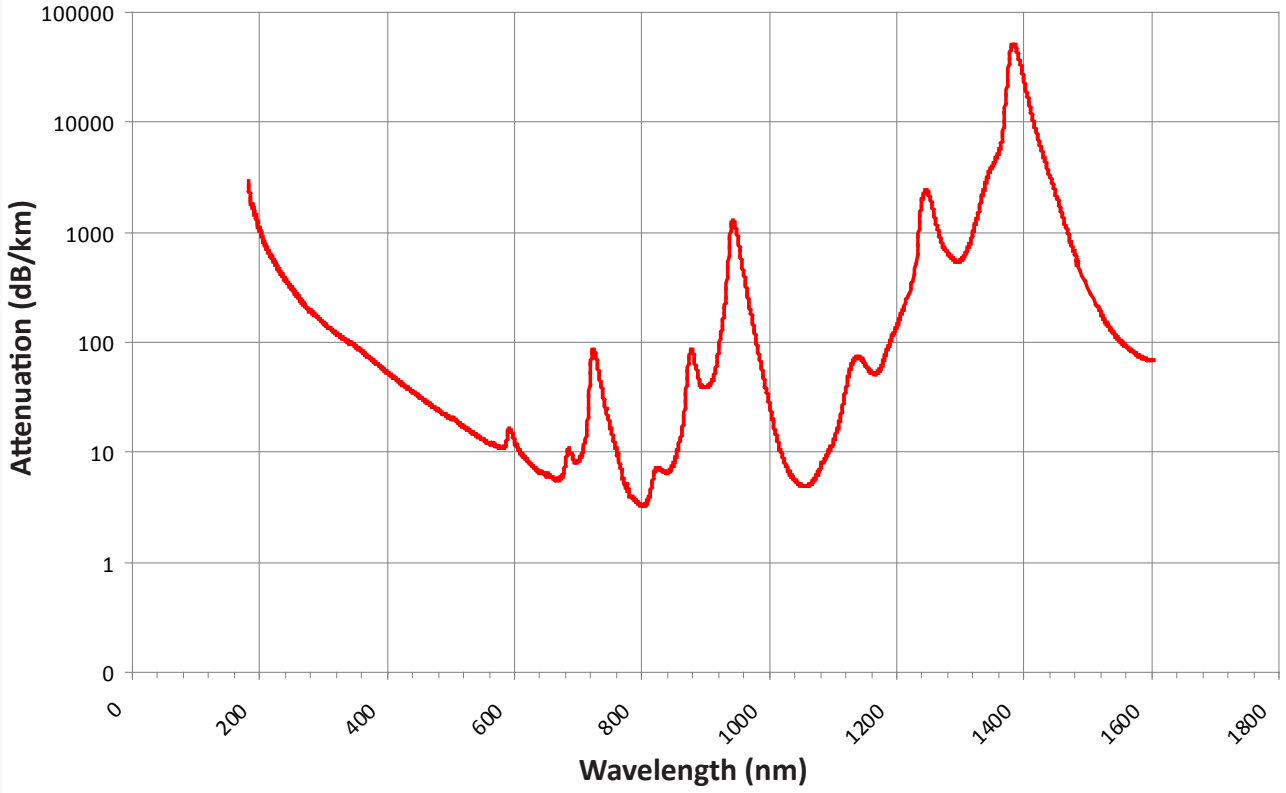
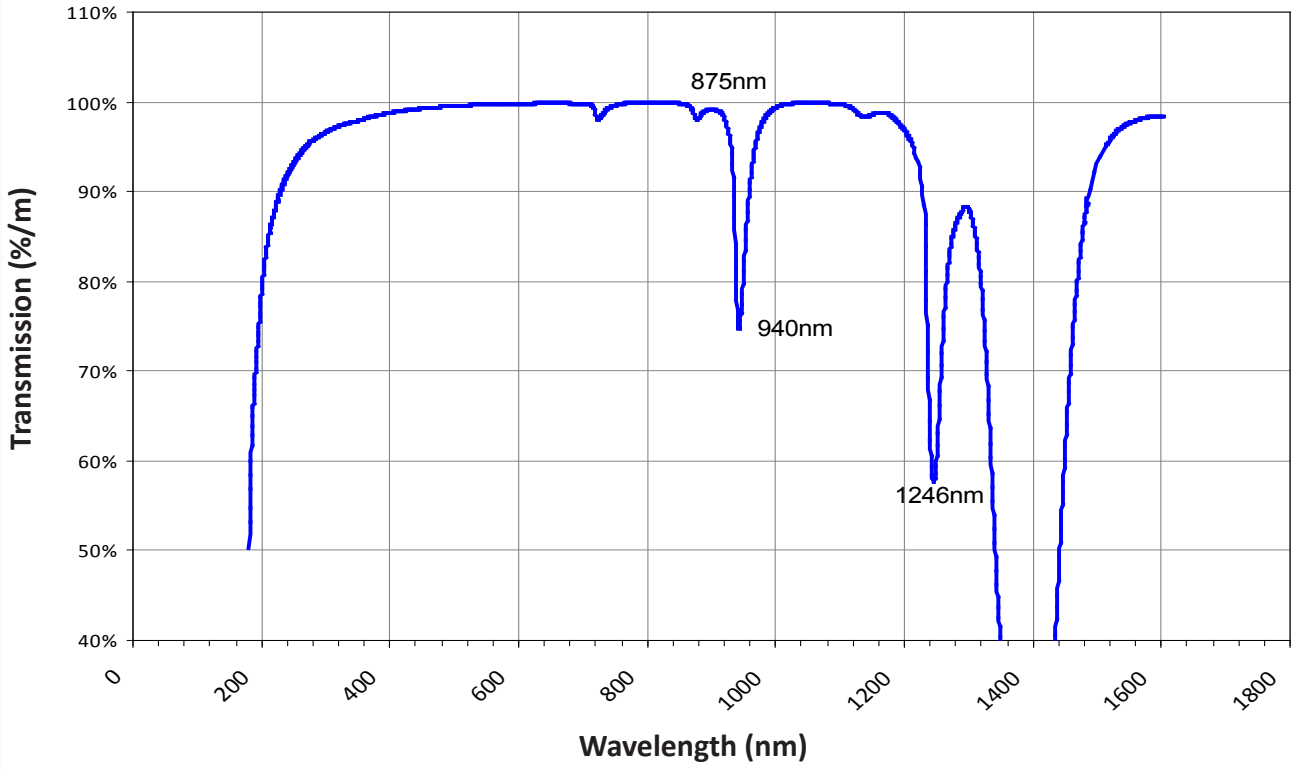
Fiber Type: Superguide™ Pure Fused Silica Core/ Fluorine Doped Silica Cladding - Step Index Multimode
Wavelength: UV-VIS (High OH): 190 nm - 1250 nm





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Index of Refraction (IOR) @ 633 nm		
Fiber Type	**Layer**	**Numerical Apterature (NA)**
		0.22
Anhydroguide™ Pure Fused Silica Core/ Fluorine Doped Silica Cladding - Step Index Multimode	Core	1.457
	Cladding	1.440
Superguide™ Pure Fused Silica Core/ Fluorine Doped Silica Cladding - Step Index Multimode	Core	1.457
	Cladding	1.439

Tefzel Coating (Natural)
Temperature: -40˚C to +200˚C / -40˚F to + 392˚F

Fiber Type: Anhydroguide™ Pure Fused Silica Core/ Fluorine Doped Silica Cladding - Step Index Multimode
Wavelength: VIS-IR (Low OH): 300 nm - 2400 nm

Numerical Aperture (NA):
Standard: 0.22 ± 0.02 (Full acceptance Angle 25˚)

Proof Test: 100 KPSI 4-Axis Bend Test

Product Code	Core Diameter (µm)	Cladding Diameter (µm)	Hard Polyer Coating Diameter (µm)	Outer Coating Diameter (µm)	Bend Radius Short Term/ Long Term (mm)
AFSH200/240/260/400Z	200 ± 8	240 ± 5	260 ± 6	400 ± 30	≥ 24/48
AFSH273/300/325/420Z	273 ± 10	300 ± 6	325 ± 10	420 ± 30	≥ 30/60
AFSH365/400/425/750Z	365 ± 14	400 ± 8	425 ± 10	750 ± 30	≥ 40/80
AFSH550/600/630/1040Z	550 ± 19	600 ± 10	630 ± 10	1040 ± 30	≥ 60/120
AFSH910/1000/1035/1400Z	910 ± 30	1000 ± 15	1035 ± 15	1400 ± 30	≥ 100/200

Tefzel Coating (Natural)
Temperature: -40˚C to +200˚C / -40˚F to + 392˚F

Fiber Type: Superguide™ Pure Fused Silica Core/ Fluorine Doped Silica Cladding - Step Index Multimode
Wavelength: UV-VIS (High OH): 190 nm - 1250 nm

Numerical Aperture (NA):
Standard: 0.22 ± 0.02 (Full acceptance Angle 25˚)

Proof Test: 100 KPSI 4-Axis Bend Test

Product Code	Core Diameter (µm)	Cladding Diameter (µm)	Hard Polyer Coating Diameter (µm)	Outer Coating Diameter (µm)	Bend Radius Short Term/ Long Term (mm)
SFSH200/240/260/400Z	200 ± 8	240 ± 5	260 ± 6	400 ± 30	≥ 24/48
SFSH273/300/325/420Z	273 ± 10	300 ± 6	325 ± 10	420 ± 30	≥ 30/60
SFSH365/400/425/750Z	365 ± 14	400 ± 8	425 ± 10	750 ± 30	≥ 40/80
SFSH550/600/630/1040Z	550 ± 19	600 ± 10	630 ± 10	1040 ± 30	≥ 60/120
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Superguide™ UV-VIS (High OH) 190nm – 1250nm

Tefzel Coating (Blue)
Temperature: -40˚C to +200˚C / -40˚F to + 392˚F

Fiber Type: Anhydroguide™ Pure Fused Silica Core/ Fluorine Doped Silica Cladding - Step Index Multimode
Wavelength: VIS-IR (Low OH): 300 nm - 2400 nm

Numerical Aperture (NA):
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Tefzel Coating (Blue)
Temperature: -40˚C to +200˚C / -40˚F to + 392˚F

Fiber Type: Superguide™ Pure Fused Silica Core/ Fluorine Doped Silica Cladding - Step Index Multimode
Wavelength: UV-VIS (High OH): 190 nm - 1250 nm

Numerical Aperture (NA):
Standard: 0.22 ± 0.02 (Full acceptance Angle 25˚)

Proof Test: 100 KPSI 4-Axis Bend Test

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