fiberguide industries
THE FIBER OPTIC SOLUTIONS COMPANY
A HALMA COMPANY

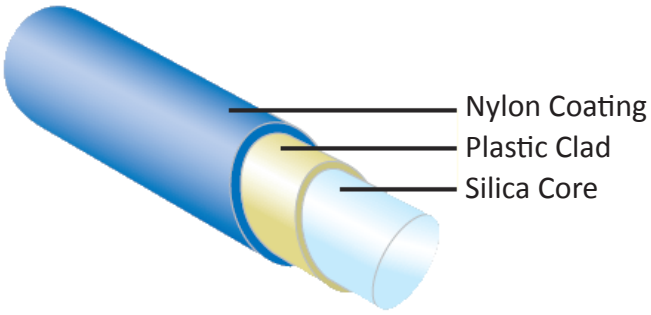
Polymer Clad Fiber (Low & High OH) Anhydroguide™ (APC) & Superguide™ (SPC)

Fiber Type:
Step Index Multimode

Fiber Construction:
Silica Core/ Polymer Clad/ Polymer Coated

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

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



Polymer Clad Fiber

Fiberguide's SPC & APC fibers feature a polymer cladding. This polymer cladding enables a NA of 0.37, but it differs from the hard polymer cladding because the polymer cladding offers better radiation stability making these fibers are the ideal choice for nuclear research and sensing applications.

FIBER SPECIFICATIONS

- Step Index Multimode
- Pure Fused Silica Core / Polymer Cladding
- Core / Cladding Sizes: 200/300µm to 2000/2150µm
- Numerical Aperture (NA):
  - o 0.37 (Up to 2 meter length)
  - o 0.23 (Over 50 meter length)
- Recommended Bend Radius:
  - o Short Term: 100 X Core Diameter
  - o Long Term: 200 X Core 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
- Nylon certified to NAMSA Class VI

NA Note

The theoretical numerical aperature for Silica Fibers, as calculated from the refractive indicies of the core and cladding materials, only persists for short fiber lengths, guided light rays near to the maxiumum acceptance angle are selectiveley attenuated by the cladding material so that a somewhat reduced effective or "steady state" numerical aperture governs transmission for distances over 50 meters

Applications:

- Bio-Analytical Sensing
- Medical Laser
- Dental Curing
- Spectroscopy
- Nuclear Plasma Sensing
- Photodynamic Therapy

fiberguide industries
THE FIBER OPTIC SOLUTIONS COMPANY
A HALMA COMPANY

Polymer Clad Fiber
(Low & High OH)
Anhydroguide™ (APC) & Superguide™ (SPC)

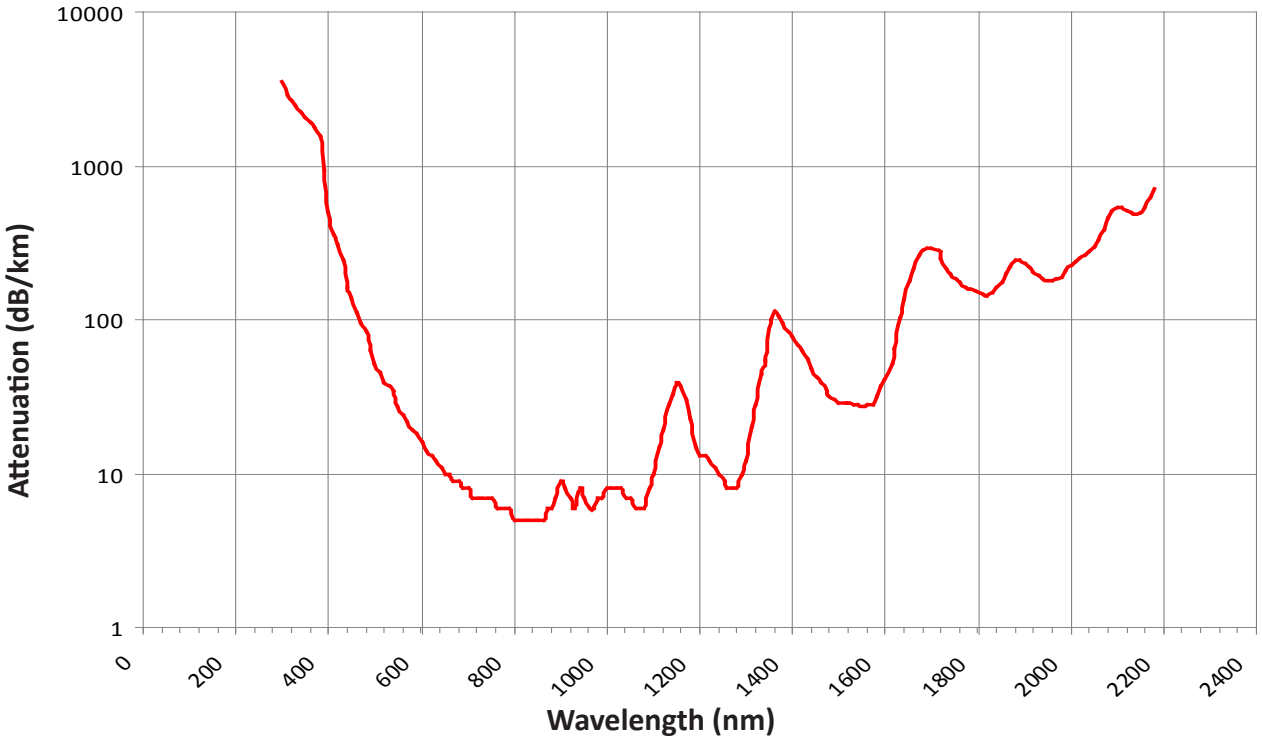
Fiber Type:
Step Index
Multimode

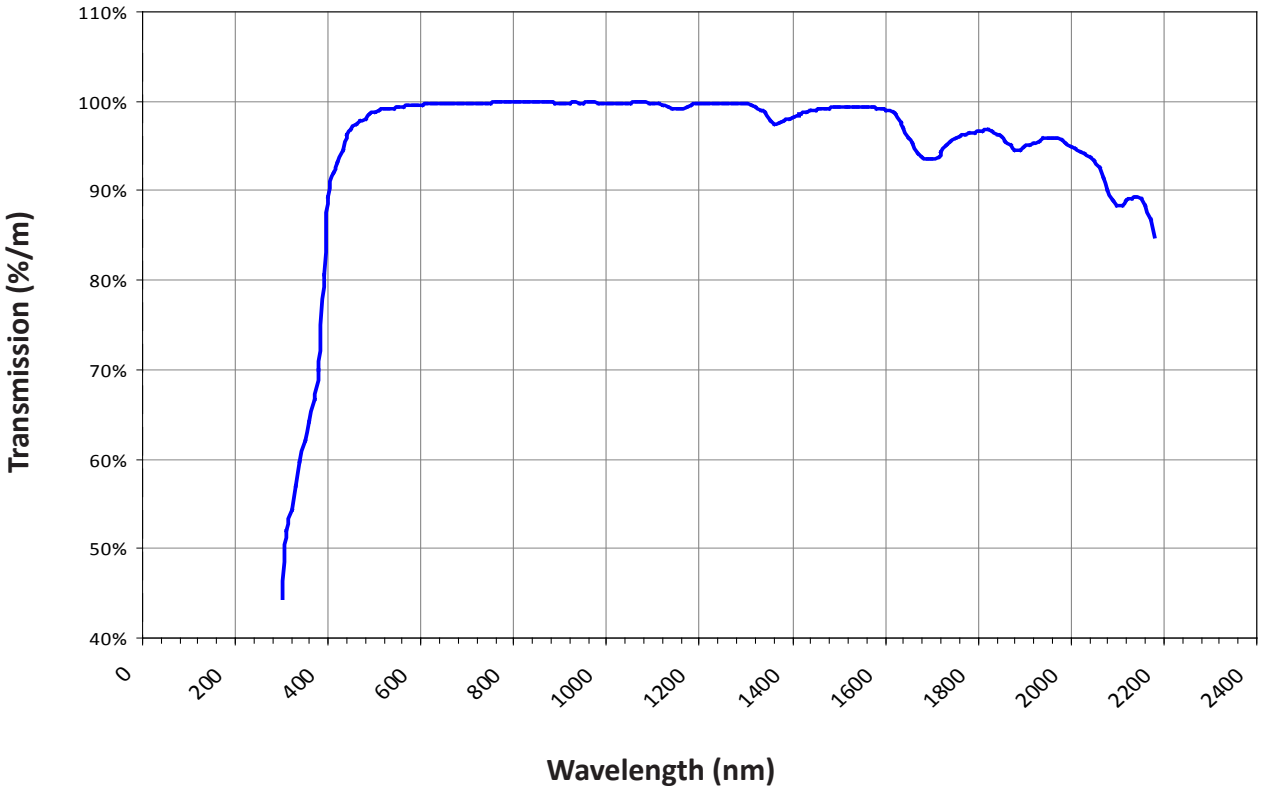
Fiber Construction:
Silica Core/
Polymer Clad/
Polymer Coated

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

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

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





fiberguide industries
THE FIBER OPTIC SOLUTIONS COMPANY
A HALMA COMPANY

Polymer Clad Fiber
(Low & High OH)
Anhydroguide™ (APC) & Superguide™ (SPC)

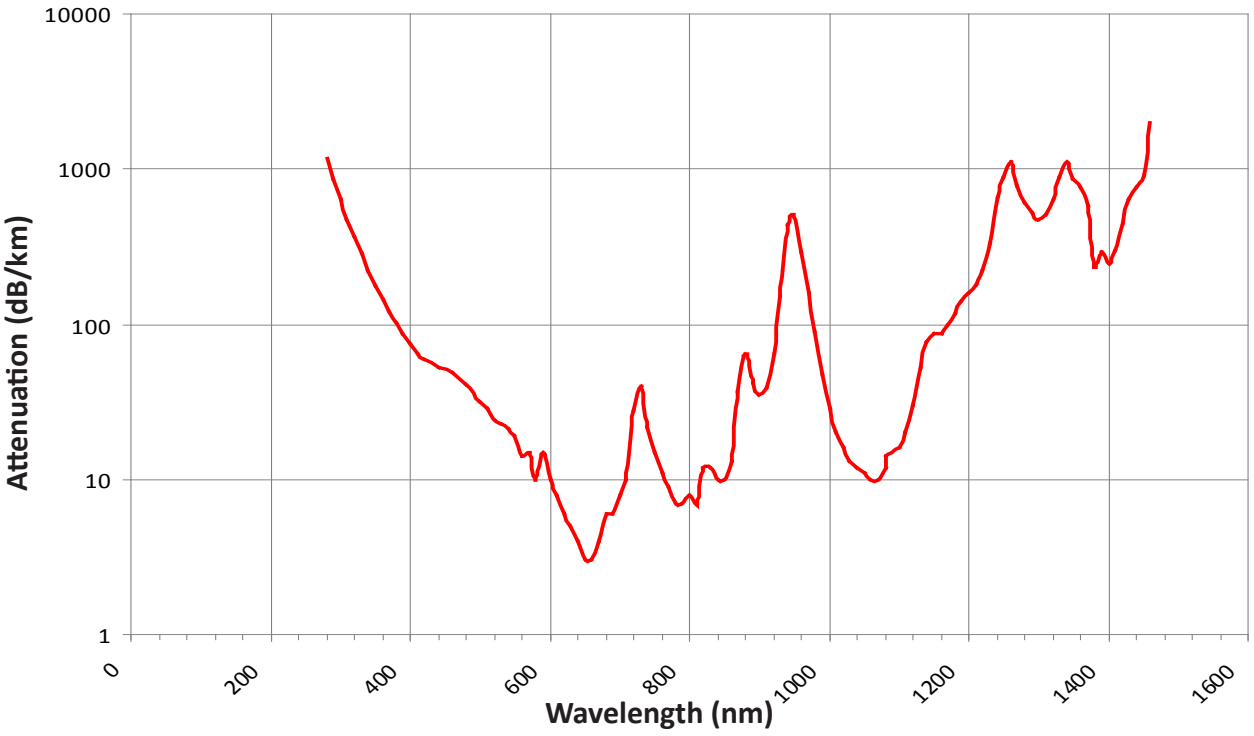
Fiber Type:
Step Index
Multimode

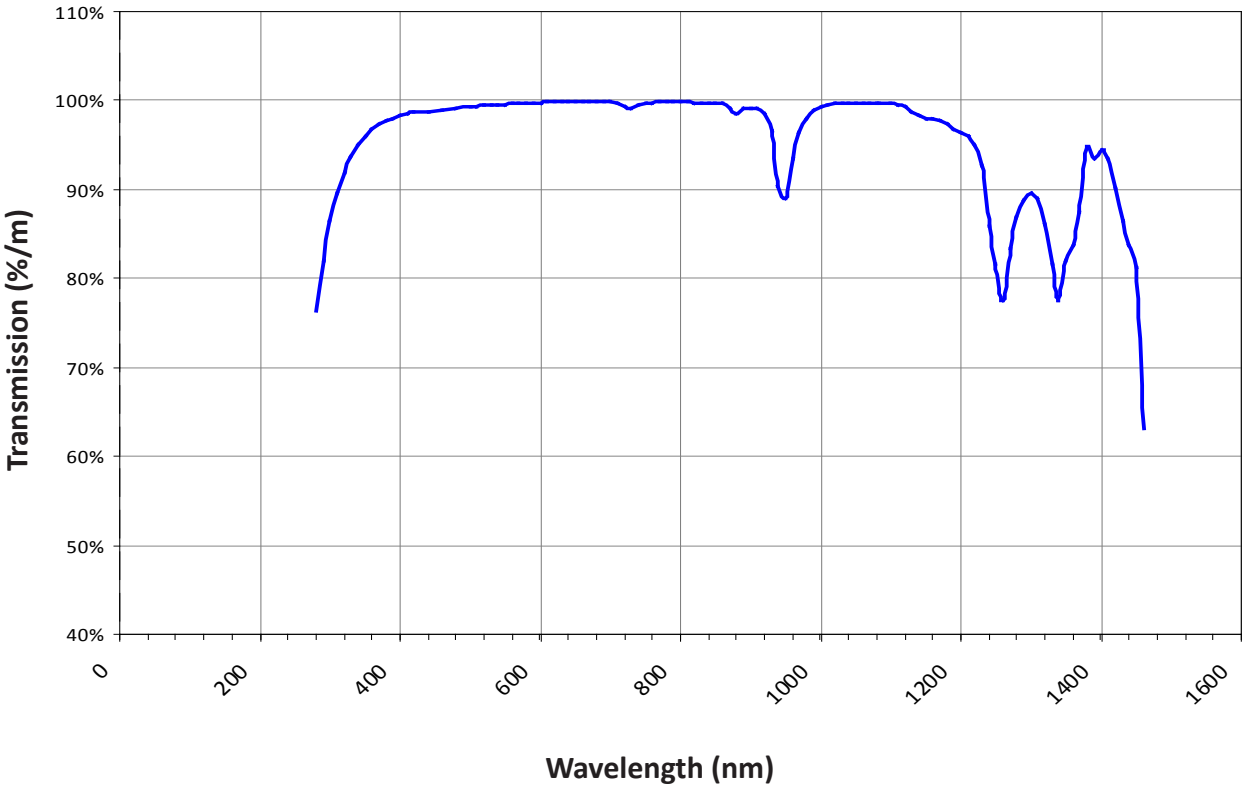
Fiber Construction:
Silica Core/
Polymer Clad/
Polymer Coated

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

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

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





fiberguide industries
THE FIBER OPTIC SOLUTIONS COMPANY
A HALMA COMPANY

Polymer Clad Fiber
(Low & High OH)
Anhydroguide™ (APC) & Superguide™ (SPC)

Fiber Type:
Step Index
Multimode

Fiber Construction:
Silica Core/
Polymer Clad/
Polymer Coated

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

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

Nylon Coating
Temperature: -40˚C to +100˚C / -40˚F to + 212˚F

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

Numerical Aperture (NA):
Standard: 0.37 ± 0.02 (Full acceptance Angle 43˚)

Proof Test: 100 KPSI 4-Axis Bend Test

Product Code	Core Diameter (µm)	Cladding Diameter (µm)	Coating Diameter (µm)	Bend Radius Short Term/ Long Term (mm)
APC200/300/370N	200 ± 4	300 ± 6	370 ± 19	≥ 20/40
APC300/400/500N	300 ± 6	400 ± 8	500 ± 25	≥ 30/60
APC400/500/600N	400 ± 8	500 ± 10	600 ± 30	≥ 40/80
APC600/700/800N	600 ± 12	700 ± 14	800 ± 40	≥ 60/120
APC800/900/1000N	800 ± 16	900 ± 18	1000 ± 50	≥ 80/160
APC1000/1100/1200N	1000 ± 20	1100 ± 22	1200 ± 60	≥ 100/200
APC1500/1650/1800N	1500 ± 30	1650 ± 33	1800 ± 90	≥ 150/300
APC2000/2150/2300N	2000 ± 40	2150 ± 43	2300 ± 115	≥ 200/400

Nylon Coating
Temperature: -40˚C to +100˚C / -40˚F to + 212˚F

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

Numerical Aperture (NA):
Standard: 0.37 ± 0.02 (Full acceptance Angle 43˚)

Proof Test: 100 KPSI 4-Axis Bend Test

Product Code	Core Diameter (µm)	Cladding Diameter (µm)	Coating Diameter (µm)	Bend Radius Short Term/ Long Term (mm)
SPC200/300/370N	200 ± 4	300 ± 6	370 ± 19	≥ 20/40
SPC300/400/500N	300 ± 6	400 ± 8	500 ± 25	≥ 30/60
SPC400/500/600N	400 ± 8	500 ± 10	600 ± 30	≥ 40/80
SPC600/700/800N	600 ± 12	700 ± 14	800 ± 40	≥ 60/120
SPC800/900/1000N	800 ± 16	900 ± 18	1000 ± 50	≥ 80/160
SPC1000/1100/1200N	1000 ± 20	1100 ± 22	1200 ± 60	≥ 100/200
SPC1500/1650/1800N	1500 ± 30	1650 ± 33	1800 ± 90	≥ 150/300
SPC2000/2150/2300N	2000 ± 40	2150 ± 43	2300 ± 115	≥ 200/400