

AS ... UV / VIS QUARTZ / QUARTZ FIBERS

All Silica ... UltraViolet

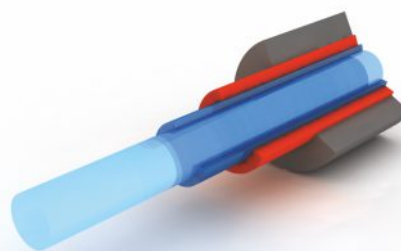
FEATURES

- Higher transmission than PCS-Fibers between 180 nm and 300 nm
- High core to clad ratio available for high efficiency bundles
- Specialty coatings available for high temperatures, high vacuum and harsh chemicals environments
- Biocompatible materials
- Sterilizable by ETO, steam, e-beam, gamma radiation
- Radiation resistant
- Laser damage resistant



FIBER-DESIGN

- Pure fused silica core (high OH-)
- Fluorine doped fused silica cladding
- Acrylate coating (-40°C to 85°C)
- Silicone resin coating (-40°C to 180°C)
- Polyimide coating (-190°C to 385°C)



Properties

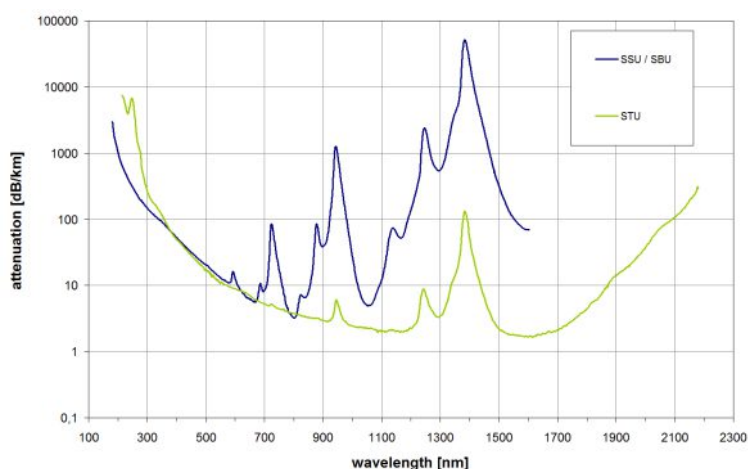
- Core/clad ratio: 1.1
- Numerical aperture: 0.22 ± 0.02
- Operation wavelength range: 180 nm to 1100 nm
- Proof test level (bend method): 70 kpsi
- Bend radius: momentary 100 times the fiber radius long term 600 times the fiber radius
- Laser damage threshold:
 - > 50 mJ/mm² (XeCl, 25 ns pulse at 248 nm)
 - > 150 mJ/mm² (XeCl, 30 ns pulse at 308 nm)
- Radiation induced attenuation: < 10 dB/km at dose values above 1 Mrad

Buffer

- Nylon (-40°C to 100°C)
- ETFE (-200°C to 150°C)
- Acrylate (-40°C to 85°C)
- Polyimide (-190°C to 385°C)

Optional

- Core/clad ratios 1.05, 1.07, 1.15, 1.20, 1.30, 1.40
- Numerical apertures 0.07 to 0.28
- Metal coating
- Fiber bundles
- Tapered fibers
- Connectors (SMA, FC/PC, ST, DIN)
- AS-Fiber cables



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NYLON BUFFERED FIBERS

(-40°C to 85°C)

NOTE
For silicone coating
replace A with S in
product code.

Product code	Core (µm) ± 2%	Cladding(µm)±2%	Coating (µm) ± 5%	Coating Material	Buffer (µm) ± 5%
AS 100/110 UVAN	100	110	180	Acrylate	300
AS 200/220 UVAN	200	220	350	Acrylate	500
AS 300/330 UVAN	300	330	500	Acrylate	700
AS 400/440 UVAN	400	440	550	Acrylate	700
AS 600/660 UVAN	600	660	800	Acrylate	1000
AS 800/880 UVAN	800	880	1000	Acrylate	1200
AS 1000/1100 UVAN	1000	1100	1250	Acrylate	1500
AS 1500/1650 UVAN	1500	1650	1800	Acrylate	2000

ETFE BUFFERED FIBERS

(-40°C to 150°C)

NOTE
For acrylate coating
replace S with A in
product code.

Product code	Core (µm) ± 2%	Cladding(µm)±2%	Coating (µm) ± 5%	Coating Material	Buffer (µm) ± 5%
AS 100/110 UVSE	100	110	180	Silicone	300
AS 200/220 UVSE	200	220	350	Silicone	500
AS 300/330 UVSE	300	330	500	Silicone	700
AS 400/440 UVSE	400	440	550	Silicone	700
AS 600/660 UVSE	600	660	800	Silicone	1000
AS 800/880 UVSE	800	880	1000	Silicone	1200
AS 1000/1100 UVSE	1000	1100	1250	Silicone	1500
AS 2000/2100 UVSE	2000	2100	2800	Silicone	4000

POLYIMIDE COATED FIBERS

(-190°C to 385°C)

Product code	Core (µm) ± 2%	Cladding (µm) ± 2%	Coating (µm) ± 3%
AS 100/110 UVPI	100	110	120
AS 200/220 UVPI	200	220	235
AS 300/330 UVPI	300	330	345
AS 400/440 UVPI	400	440	460
AS 600/660 UVPI	600	660	680

BUNDLES FIBER SPECIFICATIONS

Product code	Core (µm) ± 2%	Cladding (µm) ± 2%	Coating (µm) ± 3%	Coating Material
AS 27/30 UVVW	27	30		Wet coating
AS 46/50 UVPI	46	50	58	Polyimide
AS 46/50 UVVW	46	50		Wet coating
AS 64/70 UVPI	64	70	78	Polyimide
AS 64/70 UVVW	64	70		Wet coating
AS 100/110 UVPI	100	110	120	Polyimide
AS 100/110 UVVW	100	110		Wet coating
AS 200/220 UVPI	200	220	235	Polyimide

Other specifications upon request.

Low Attenuation

α ($\lambda = 313\text{nm}$) = 99dB/km
 α ($\lambda = 400\text{nm}$) = 36dB/km
 α ($\lambda = 660\text{nm}$) = 5,4dB/km