

AS... UV Taper Fibers

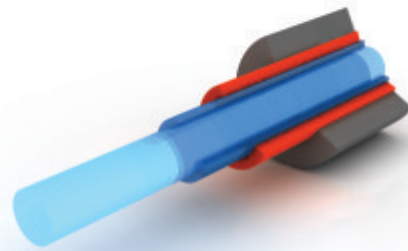
Features

- 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: $> 50 \text{ mJ/mm}^2$ (XeCl, 25 ns pulse at 248 nm)
 $> 150 \text{ mJ/mm}^2$ (XeCl, 30 ns pulse at 308 nm)
- Radiation induced attenuation: $< 10 \text{ dB/km}$ at dose values above 1 Mrad

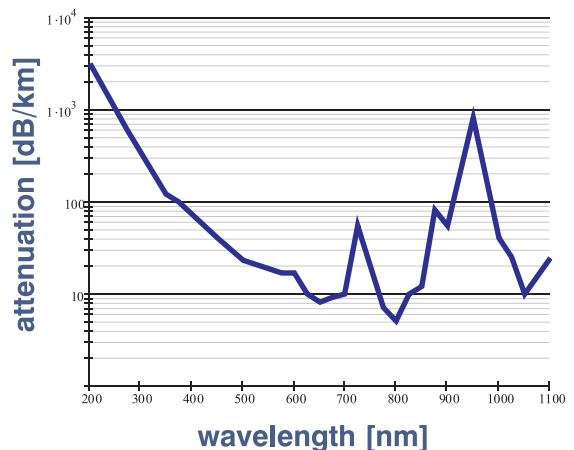
Buffer

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

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

Spectral Attenuation AS...UV



AS... UV Taper Fibers

NYLON BUFFERED FIBERS

(-40°C to 85°C)

NOTE

For silicone coating
replace A with S in
product code.

| Product code | Core (μm) \pm 2% | Cladding (μm) \pm 2% | Coating (μm) \pm 5% | Coating Material | Buffer (μm) \pm 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) \pm 2% | Cladding (μm) \pm 2% | Coating (μm) \pm 5% | Coating Material | Buffer (μm) \pm 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) \pm 2% | Cladding (μm) \pm 2% | Coating (μm) \pm 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) \pm 2% | Cladding (μm) \pm 2% | Coating (μm) \pm 3% | Coating Material |
|-----------------|---------------------------------|-------------------------------------|------------------------------------|------------------|
| AS 27/30 UVVV | 27 | 30 | | Wet coating |
| AS 46/50 UVPI | 46 | 50 | 58 | Polyimide |
| AS 46/50 UVVV | 46 | 50 | | Wet coating |
| AS 64/70 UVPI | 64 | 70 | 78 | Polyimide |
| AS 64/70 UVVV | 64 | 70 | | Wet coating |
| AS 100/110 UVPI | 100 | 110 | 120 | Polyimide |
| AS 100/110 UVVV | 100 | 110 | | Wet coating |
| AS 200/220 UVPI | 200 | 220 | 235 | Polyimide |

Other specifications upon request.