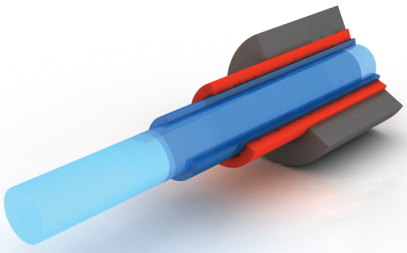
AS ... IR FIBERS

All Silica ... Infrared

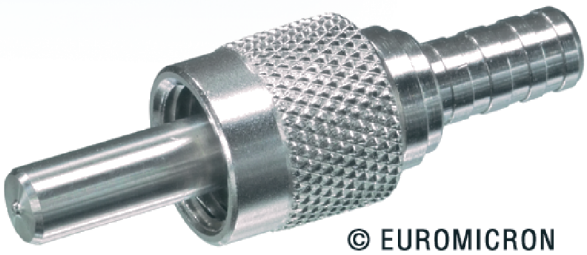
Features

· Higher transmission than PCS-Fibers between 1500 nm and 2600 nm
· Broad useful spectral transmission range
· Specialty coatings available for high temperatures, high vacuum and harsh chemicals environments
· Biocompatible materials
· Sterilizaable by ETO, steam, e-beam, gamma radiation
· Radiation resistant
· Laser damage resistant



Fiber-Design

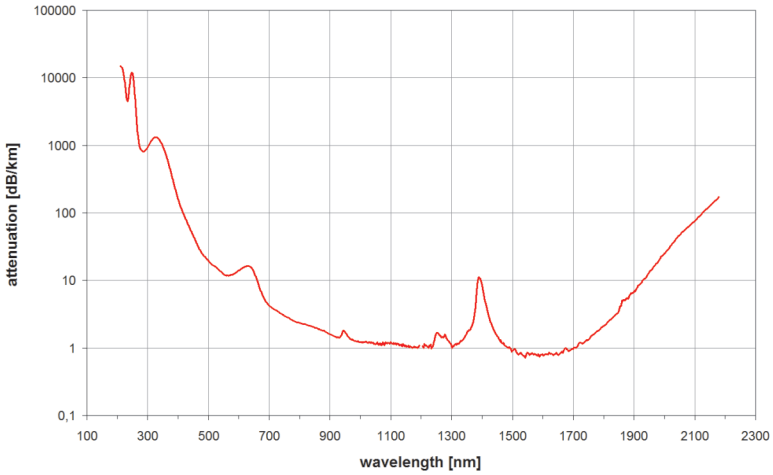
· Pure fused silica core (low OH-)
· Fluorine doped fused silica cladding
· Acrylate coating (-40°C to 85°C)
· Silicone resin coating (-40°C to 180°C)
· Polyimide coating (-190°C to 385°C)



Properties
· Core/clad ratio: 1.1, 1.2, 1.4
· Numerical aperture: 0.22 ± 0.02
· Operation wavelength range: 350 nm to 2600 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: > 5 J/mm2 (Nd:YAG, 1ms pulse at 1060 nm)
>1.3 kW/mm2 (Nd:YAG, cw at 1060 nm)

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)

Options
· Core/clad ratios 1.15,1.30, 1,4 ... 2,5
· Numerical apertures 0.07 to0.28
· Metal coating (Al or Cu)
· Fiber bundles
· Tapered fibers
· Connectors (SMA, FC/PC, ST, DIN)
· AS-Fiber cables
· high temperatur acrylate -40°C to 200°C



fiberware

fiberware GmbH
Bornheimer Str. 4
09648 Mittweida
Germany

phone: +49 30 56 700 730
fax: +49 30 56 700 732
e-mail: office@fiberware.de
internet: fiberware.de

AS ... IR FIBERS

All Silica ... Infrared

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 100/140 IRAN	100	140	200	Acrylate	500
AS 200/220 IRAN	200	220	350	Acrylate	500
AS 200/280 IRAN	200	280	500	Acrylate	700
AS 300/330 IRAN	300	330	500	Acrylate	700
AS 400/440 IRAN	400	440	550	Acrylate	700
AS 600/660 IRAN	600	660	800	Acrylate	1000
AS 800/880 IRAN	800	880	1000	Acrylate	1200
AS 1000/1100 IRAN	1000	1100	1250	Acrylate	1500
AS 1500/1650 IRAN	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 100/140 IRSE	100	110	180	silicone	300
AS 200/220 IRSE	200	220	350	silicone	500
AS 200/280 IRSE	200	280	500	silicone	700
AS 300/330 IRSE	300	330	500	silicone	700
AS 400/440 IRSE	400	440	550	silicone	700
AS 600/660 IRSE	600	660	800	silicone	1000
AS 800/880 IRSE	800	880	1000	silicone	1200
AS 1000/1100 IRSE	1000	1100	1250	silicone	1500
AS 2000/2100 IRSE	2000	2100	2800	silicone	4000

POLYIMIDE COATED FIBERS

(-190°C to 385°C)

NOTE

For metal coating replace PI with Al or Cu in product code.

Product code	Core (µm) ± 2%	Cladding (µm) ± 2%	Coating (µm) ± 3%
AS 100/140 IRPI	100	140	160
AS 200/220 IRPI	200	220	240
AS 200/280 IRPI	200	280	300
AS 300/330 IRPI	300	330	365
AS 400/440 IRPI	400	440	470
AS 600/660 IRPI	600	660	690
AS 1000/1100 IRPI	1000	1100	1150

BUNDLES FIBER SPECIFICATIONS

Product code	Core (µm) ± 2%	Cladding (µm) ±2%	Coating (µm) ± 3%	Coating Material	Wavelength Rng nm
AS 50/70 IRVV	50	70		Wet coating	350 to 2600
AS 50/70 IRPI	50	70	78	Polyimide	350 to 2600
AS 58/70 IRVV	58	70		Wet coating	350 to 1500
AS 58/70 IRPI	58	70	78	Polyimide	350 to 1500
AS 100/110 IRVV	100	110		Wet coating	350 to 1500
AS 100/110 IRPI	100	110	120	Polyimide	350 to 1500
AS 100/120 IRVV	100	120		Wet coating	350 to 2600
AS 100/120 IRPI	100	120	120	Polyimide	350 to 2600
AS 125/150 IRPI	125	150	160	Polyimide	350 to 2600
AS 150/165 IRPI	150	165	180	Polyimide	350 to 1800
AS 200/220 IRPI	200	220	235	Polyimide	350 to 2600

Other specifications upon request.

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fiberware

fiberware GmbH
Bornheimer Str. 4
09648 Mittweida
Germany

phone: +49 30 56 700 730
fax: +49 30 56 700 732
e-mail: office@fiberware.de
internet: fiberware.de

AS... IR Taper Fibers

Features

· Higher transmission than PCS-Fibers between 1500 nm and 2600 nm
· Broad useful spectral transmission range
· Specialty coatings available for high temperatures, high vacuum and harsh chemicals environments
· Biocompatible materials
· Sterilizaable by ETO, steam, e-beam, gamma radiation
· Radiation resistant
· Laser damage resistant

Fiber-Design

· Pure fused silica core (low 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, 1.2, 1.4
· Numerical aperture: 0.22 ± 0.02
· Operation wavelength range: 350 nm to 2600 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: > 5 J/mm2 (Nd:YAG, 1ms pulse at 1060 nm)
>1.3 kW/mm2 (Nd:YAG, cw at 1060 nm)

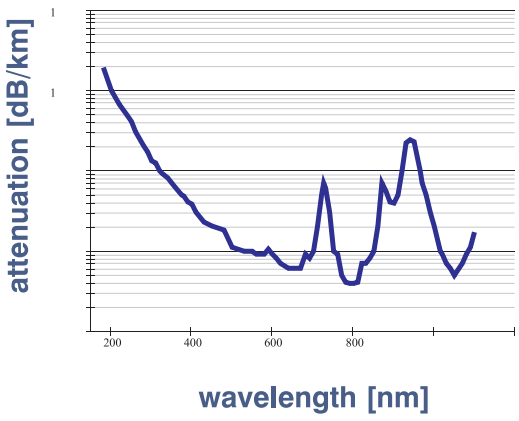
Buffer

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

Options

· Core/clad ratios 1.15,1.30, 1,4 ... 2,5
· Numerical apertures 0.07 to0.28
· Metal coating
· Fiber bundles
· Tapered fibers
· Connectors (SMA, FC/PC, ST, DIN)
· AS-Fiber cables
· high temperatur acrylate -40°C to 200°C

Spectral Attenuation AS...IR



fiberware

fiberware GmbH · Bornheimer Str. 4 · D-09648 Mittweida
Telefon: +49 30 56 700 730
Fax: +49 30 56 700 732
E-Mail: info@fiberware.de
Internet: fiberware.de

AS... IR 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) ± 2%	Cladding (µm) ±2%	Coating (µm) ± 5%	Coating Material	Buffer (µm) ± 5%
AS 100/140 IRAN	100	140	200	Acrylate	500
AS 200/220 IRAN	200	220	350	Acrylate	500
AS 200/280 IRAN	200	280	500	Acrylate	700
AS 300/330 IRAN	300	330	500	Acrylate	700
AS 400/440 IRAN	400	440	550	Acrylate	700
AS 600/660 IRAN	600	660	800	Acrylate	1000
AS 800/880 IRAN	800	880	1000	Acrylate	1200
AS 1000/1100 IRAN	1000	1100	1250	Acrylate	1500
AS 1500/1650 IRAN	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 100/140 IRSE	100	110	180	silicone	300
AS 200/220 IRSE	200	220	350	silicone	500
AS 200/280 IRSE	200	280	500	silicone	700
AS 300/330 IRSE	300	330	500	silicone	700
AS 400/440 IRSE	400	440	550	silicone	700
AS 600/660 IRSE	600	660	800	silicone	1000
AS 800/880 IRSE	800	880	1000	silicone	1200
AS 1000/1100 IRSE	1000	1100	1250	silicone	1500
AS 2000/2100 IRSE	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 100/140 IRPI	100	140	155
AS 200/220 IRPI	200	220	235
AS 200/280 IRPI	200	280	295
AS 300/330 IRPI	300	330	345
AS 400/440 IRPI	400	440	460
AS 600/660 IRPI	600	660	680

BUNDLES FIBER SPECIFICATIONS

Product code	Core (µm) ± 2%	Cladding (µm) ±2%	Coating (µm) ± 3%	Coating Material	Wavelength Range nm
AS 50/70 IRVV	50	70		Wet coating	350 to 2600
AS 50/70 IRPI	50	70	78	Polyimide	350 to 2600
AS 58/70 IRVV	58	70		Wet coating	350 to 1500
AS 58/70 IRPI	58	70	78	Polyimide	350 to 1500
AS 100/110 IRVV	100	110		Wet coating	350 to 1500
AS 100/110 IRPI	100	110	120	Polyimide	350 to 1500
AS 100/120 IRVV	100	120		Wet coating	350 to 2600
AS 100/120 IRPI	100	120	120	Polyimide	350 to 2600
AS 125/150 IRPI	125	150	160	Polyimide	350 to 2600
AS 150/165 IRPI	150	165	180	Polyimide	350 to 1800
AS 200/220 IRPI	200	220	235	Polyimide	350 to 2600

Other specifications upon request.

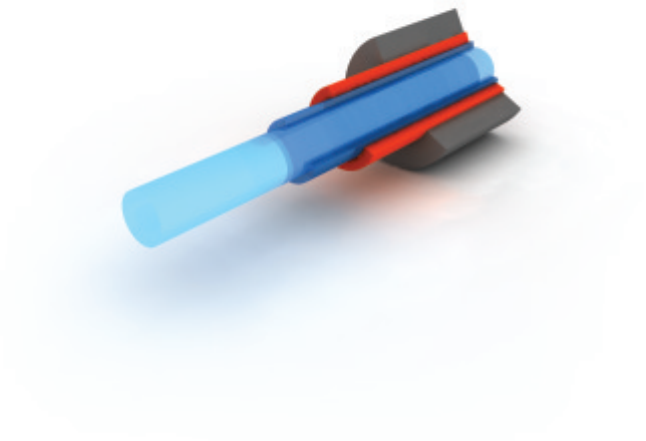
fiberware

fiberware GmbH · Bornheimer Str. 4 · D-09648 Mittweida
Telefon: +49 30 56 700 730
Fax: +49 30 56 700 732
E-Mail: info@fiberware.de
Internet: fiberware.de

AS... UV / VIS QUARTZ / QUARTZ FIBERS

Features

· Higher transmission than PCS-Fibers between 180 nm and 300 nm
· High core to clad ratio availale 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

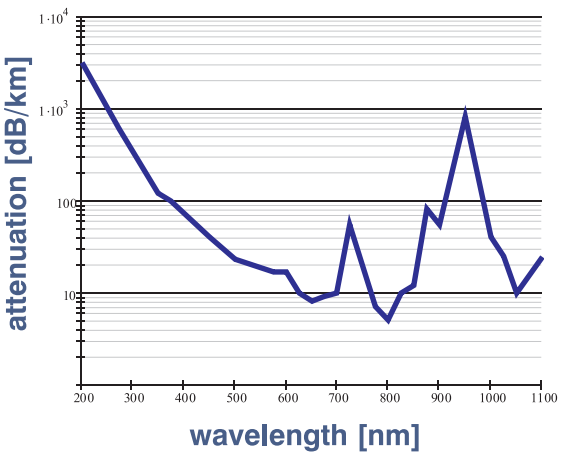
Buffer

· 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

Spectral Attenuation AS...UV



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AS... UV / VIS QUARZT / QUARTZ FIBERS

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 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.

fiberware

fiberware GmbH · Bornheimer Str. 4 · D-09648 Mittweida
Telefon: +49 30 56 700 730
Fax: +49 30 56 700 732
E-Mail: info@fiberware.de
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AS... UV Taper Fibers

Features

· Higher transmission than PCS-Fibers between 180 nm and 300 nm
· High core to clad ratio availale 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

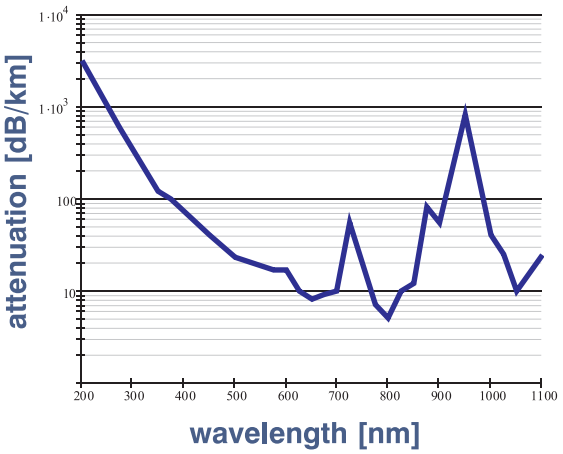
Buffer

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

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



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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) ± 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 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.

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