heracle

Fiber types
All silica
Hard clad

Profiles
Singlemode
Multimode
Step index
Graded index

Core materials
Pure silica
Germanium doped
Fluorine doped

Core diameters
10 – 2100 µm

Numerical aperture
Up to 0.39
(All silica)
Up to 0.52
(Hard clad)

Coatings
Acrylates
Silicone
Ormocer®
Polyimide
Metal

Special features
Anti-reflection coating
FBG imprinting
Tapered fiber

Multiple options & combinations available

Heracle Overview – a short summary of our capabilities and standard product and service offerings

While we love to build the right fiber for your application, we have a comprehensive portfolio of fiber solutions for fast delivery.

Please enjoy our heracle overview as an inspiration to solve your fiber optics challenges. We will be more than happy to assist you with our design, manufacturing and test services as well as to discuss your specific needs in the fiber optics world.

Yours,
Peggy Bärenklau
CEO

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Content

Heracle is your optical fiber partner

Stringent quality procedure

Heracle – Influencing the entire value chain

Value plus measurement and test services

Preform measurement

Fiber for UV/VIS

Acrylate coated fiber 1

Acrylate coated fiber 2

Low index polymer coated fiber 1

Low index polymer coated fiber 2

Polyimide coated fiber 1

Polyimide coated fiber 2

Silicone coated fiber

Double & Triple clad fiber

Broadband, Graded index, Radiation/Solaris. stable fiber

Hard polymer clad silica fiber

Gold coated fiber

Aluminum coated fiber

Capillaries

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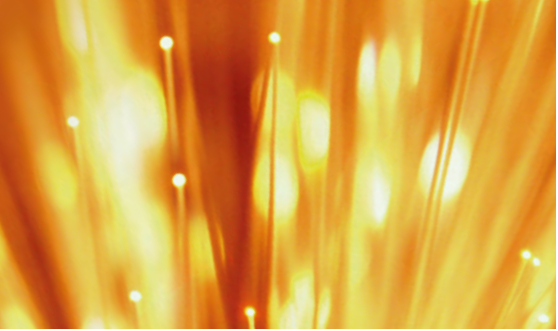

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Heracle is your optical fiber partner in medical, laser, sensing and other industrial applications

Heracle is your partner for custom-designed OEM fiber solutions as well as your reliable source for the full product range of off-the-shelf specialty fibers. Our fibers are fully customizable according to the specific applications, specifications and environmental challenges. You can specify your fiber in terms of glass material, core diameter, coating option and NA parameter.

What distinguishes us is our competence and dedication to individually consult, design, manufacture, measure, test and provide the specific fiber solution, custom tailored to each of our OEM customers' challenging applications – thereby enabling our clients' current and next generation device technology or product.

Custom specialty optical fiber

We offer the full competence and service range from customized design and manufacturing to measurement and test services as well as in-depth consulting and applications support to find the individual fiber solution.

We thereby strictly focus on fiber business only. Our clients trust us when sharing confidential information and technologies since we do not compete with them in their markets. As a reliable supply source we make sure the qualified fiber product remains available from inventory at shortest possible lead times. To meet demanding conditions in advanced laser and industry use, we offer radiation resistant fibers, ultra-low solarization resistant fibers, fibers with high-laser damage threshold and for operation in harsh environments and temperatures. For medical applications we provide biocompatible optical fibers, as well as suitable fused silica capillary tubing.

Stringent quality procedure

Whether it be a custom fiber or a standard product available from shelf, at heracle we perform a 100 % quality and performance check for every fiber spool shipped to the customer:

Fiber geometry measurement, proof test, spectral attenuation measurement of the fiber, measurement of numerical aperture for application wavelength

We will make sure the fiber works in your application as promised. If you are not happy with the performance of the fiber, the fiber will be replaced!

Increase your productivity – with our custom fiber length service

Especially for our customer working in fiber assembly for medical and high power laser applications we have introduced a special fiber fitted length service. We support speedy termination of fibers in high volumes and thereby help to significantly increase productivity at our customers subsequent processing – customer can fully concentrate on the termination of the fiber end and do not need to worry about fiber handling:

Re-spooling on custom-specific spools, supply of custom lengths for high through-put and cost efficient production, highly precise fiber cleaves for fibers up to 1000 µm glass diameter

Off-the shelf specialty optical fiber portfolio

Heracle has a broad portfolio of specialty optical fibers which are available for immediate off-the-shelf delivery. Fibers include:

All-silica fiber for both UV/VIS, VIS/IR and broadband applications, plastic clad silica fiber, multiple clad fiber, step index or graded index fiber

Please choose your fiber from our product portfolio or inform us, if you miss your specific fiber design or configuration.

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Heracle – Influencing the entire value chain

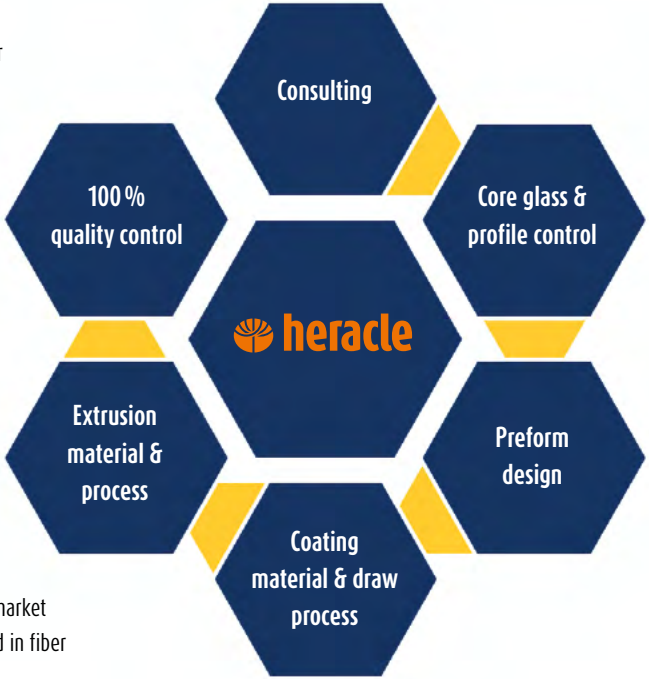
We determine the manufacturing of the fiber by chosing the

- appropriate core material
- corresponding preform design
- best possible coating material
- suitable draw condition
- optional buffering

The products are manufactured using consistent, reliable processes in proven environments.

Our motivation:

Heracle's expertise and contacts enable customers to enjoy greater success in their individual markets.
They benefit from Heracle's comprehensive market knowledge of the entire value chain involved in fiber manufacturing.



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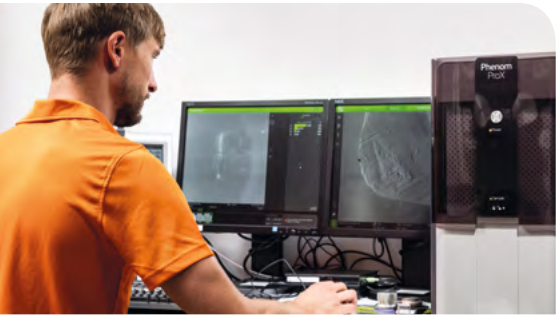
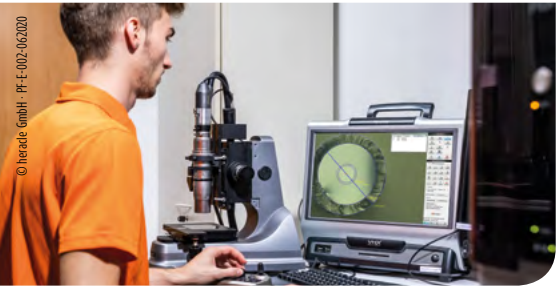
Value plus measurement and test services

With our range of measurement and test services we add value and reliability to our services and fiber solutions offering. We first of all make sure that our fibers perform according to our high quality standards, our clients' requirements and the intended use. Value Plus also allows clients to gain valuable feedback on their fibers' specifications and performance. With the broad range of test and measurement options we are prepared to answer their questions around fiber quality and fiber manufacturing related issues. **Heracle offers a comprehensive set of techniques to determine fiber parameters and performance:**



- Measurement of spectral attenuation from 190 nm up to 2100 nm
- Measurement of geometry specifications: Core, Cladding, Coating, Buffer diameter
- Measurement of eccentricity values: Core/Cladding, Cladding/Coating, Coating/Buffer
- Numerical Aperture: wavelength dependent, for single and multiple claddings
- Fiber refractive index profile measurement
- Fiber strength tests for diameter from 50 µm up to 1.5 mm:
  - dynamic fatigue: up to 200 kpsi proof tension
  - static fatigue: 2-Point-Bending and tensile method
- FTIR spectrometry for coating materials analysis
- Evaluation of interference pattern
- Characterization of focal ratio degradation (FRD)
- Fiber analysis by scanning electron microscope

Preform measurement



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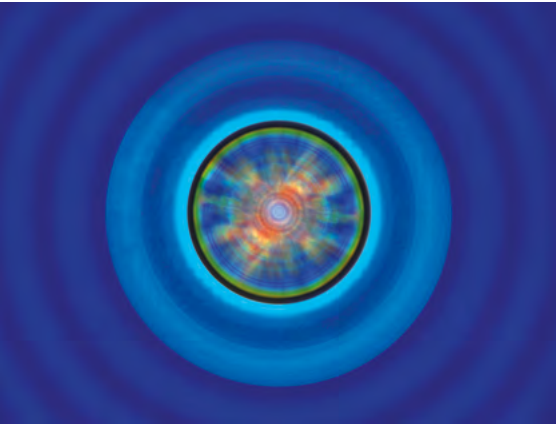
Heracle offers determination of preform parameters to support process control in subsequent fiber manufacturing:

- Preform measurement of Multimode and Singlemode
- Geometry measurement for preforms from 10 up to 80 mm glass diameter
- Refractive index profile measurement for single and multiple cladding designs
- Refractive index difference measurement from 0 to 0.05



Fiber Design Name	Wavelength	Core [µm]	Cladding [µm]	NA +/- 0.02	Coating	Coating [µm]	Buffer & Color	Buffer [µm]
AS 114/125 UVA 160	UV/VIS	114	125	0.22	Acrylate	160	none	0
AS 114/125 UVAA 245	UV/VIS	114	125	0.22	Acrylate	245	none	0
AS 190/200 UVA 230	UV/VIS	190	200	0.22	Acrylate	230	none	0
AS 200/208 UVA 240 blue	UV/VIS	200	208	0.22	Acrylate	240	none	0
AS 200/208 UVA 240 transp	UV/VIS	200	208	0.22	Acrylate	240	none	0
AS 200/208 UVA 240 yellow	UV/VIS	200	208	0.22	Acrylate	240	none	0
AS 200/220 UVA 335	UV/VIS	200	220	0.22	Acrylate	335	none	0
AS 200/220 UVAA 360	UV/VIS	200	220	0.22	Acrylate	360	none	0
AS 300/330 UVAN 430/800 black	UV/VIS	300	330	0.22	Acrylate	430	Nylon black	800
AS 400/440 UVAA 560	UV/VIS	400	440	0.22	Acrylate	560	none	0
AS 400/440 UVAN 560/700 black	UV/VIS	400	440	0.22	Acrylate	560	Nylon black	700
AS 600/630 UVA 800	UV/VIS	600	630	0.22	Acrylate	800	none	0
AS 600/660 UVA 900	UV/VIS	600	660	0.22	Acrylate	900	none	0
AS 600/660 UVAA 850	UV/VIS	600	660	0.22	Acrylate	850	none	0
AS 600/660 UVAN 840/1000 black	UV/VIS	600	660	0.22	Acrylate	840	Nylon black	1000
AS 100/110 UVPI 125	UV/VIS	100	110	0.22	Polyimide	125	none	0
AS 190/200 UVPI 220	UV/VIS	190	200	0.22	Polyimide	220	none	0
AS 200/208 UVPI 225	UV/VIS	200	208	0.22	Polyimide	225	none	0
AS 600/660 UVPI680	UV/VIS	600	660	0.22	Polyimide	680	none	0
AS 1000/1100 UVPI 1130	UV/VIS	1000	1100	0.22	Polyimide	1130	none	0
ASRE 200/400 UVSN 580/2000 transp	UV/VIS	200	400	0.22	Silicone	580	Nylon transp.	2000
AS 600/660 UVSN 850/1050 blue	UV/VIS	600	660	0.22	Silicone	850	Nylon blue	1050
AS 1000/1100 UVSST 1300/1600 transp	UV/VIS	1000	1100	0.22	Silicone	1300	ETFE transp.	1600

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Fiber Design Name	Wavelength	Core [µm]	Cladding [µm]	NA +/- 0.02	Coating	Coating [µm]	Buffer & Color	Buffer [µm]
AS 100/120 IRA 315	VIS/IR	100	120	0.22	Acrylate	315	none	0
AS 100/120 IRAN 245/500 black	VIS/IR	100	120	0.22	Acrylate	245	Nylon black	500
AS 105/125 IRAA 245	VIS/IR	105	125	0.22	Acrylate	245	none	0
AS 105/125 IRAA 245 NA 015	VIS/IR	105	125	0.15	Acrylate	245	none	0
AS 105/125 IRHTC 245	VIS/IR	105	125	0.22	Acrylate	245	none	0
AS 105/125 IRHTC 245 NA 015	VIS/IR	105	125	0.15	Acrylate	245	none	0
AS 114/125 UVA 160	UV/VIS	114	125	0.22	Acrylate	160	none	0
AS 114/125 UVAA 245	UV/VIS	114	125	0.22	Acrylate	245	none	0
AS 190/200 UVA 230	UV/VIS	190	200	0.22	Acrylate	230	none	0
AS 190/200 UVA 230 yellow	UV/VIS	190	200	0.22	Acrylate	230	none	0
AS 200/208 UVA 240 blue	UV/VIS	200	208	0.22	Acrylate	240	none	0
AS 200/208 UVA 240 transp	UV/VIS	200	208	0.22	Acrylate	240	none	0
AS 200/208 UVA 240 yellow	UV/VIS	200	208	0.22	Acrylate	240	none	0
AS 200/220 IRA 335	VIS/IR	200	220	0.22	Acrylate	335	none	0
AS 200/220 IRAA 275/305	VIS/IR	200	220	0.22	Acrylate	275	none	305
AS 200/220 UVA 335	UV/VIS	200	220	0.22	Acrylate	335	none	0
AS 200/220 UVAA 360	UV/VIS	200	220	0.22	Acrylate	360	none	0
AS 200/240 IRAA 360	VIS/IR	200	240	0.22	Acrylate	360	none	0
AS 200/240 IRAA 400 red	VIS/IR	200	240	0.22	Acrylate	400	none	0
AS 200/240 IRAAN 360/500 black	VIS/IR	200	240	0.22	Acrylate	360	Nylon black	500
AS 230/275 IRAA 450 NA 014	VIS/IR	230	275	0.14	Acrylate	450	none	0
AS 240/264 IRA 370	VIS/IR	240	264	0.22	Acrylate	370	none	0
AS 250/275 IRA 370	VIS/IR	250	275	0.22	Acrylate	370	none	0

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Fiber Design Name	Wavelength	Core [µm]	Cladding [µm]	NA +/- 0.02	Coating	Coating [µm]	Buffer & Color	Buffer [µm]
AS 250/275 IRAA 450 NA 014	VIS/IR	250	275	0.14	Acrylate	450	none	0
AS 300/330 IRAN 560/700 black	VIS/IR	300	330	0.22	Acrylate	560	Nylon black	700
AS 300/330 UVAN 430/800 black	UV/VIS	300	330	0.22	Acrylate	430	Nylon black	800
AS 330/365 IRAA 560 NA 014	VIS/IR	330	365	0.14	Acrylate	560	none	0
AS 400/440 IRAA 560	VIS/IR	400	440	0.22	Acrylate	560	none	0
AS 400/440 IRAAN 560/700 black	VIS/IR	400	440	0.22	Acrylate	560	Nylon black	700
AS 400/440 UVAA 560	UV/VIS	400	440	0.22	Acrylate	560	none	0
AS 400/440 UVAN 560/700 black	UV/VIS	400	440	0.22	Acrylate	560	Nylon black	700
AS 600/630 UVA 800	UV/VIS	600	630	0.22	Acrylate	800	none	0
AS 600/660 IRA 840	VIS/IR	600	660	0.22	Acrylate	840	none	0
AS 600/660 IRAA 840	VIS/IR	600	660	0.22	Acrylate	840	none	0
AS 600/660 IRAN 840/1000 black	VIS/IR	600	660	0.22	Acrylate	840	Nylon black	1000
AS 600/660 UVA 900	UV/VIS	600	660	0.22	Acrylate	900	none	0
AS 600/660 UVAA 850	UV/VIS	600	660	0.22	Acrylate	850	none	0
AS 600/660 UVAN 840/1000 black	UV/VIS	600	660	0.22	Acrylate	840	Nylon black	1000
AS 62.5/125 IRAA 250	VIS/IR	62.5	125	0.22	Acrylate	250	none	0
GGI 200/280 IRAA 500 NA 030	GI/GE-doped	200	280	0.30	Acrylate	500	none	0
GGI 200/400 IRA 640 NA 029	GI/GE-doped	200	400	0.29	Acrylate	640	none	0
GGI 230/400 IRA NA 0275	GI/GE-doped	230	400	0.275	Acrylate	530	none	0
GGI 330/720 IRA 840 NA 0275	GI/GE-doped	330	720	0.275	Acrylate	840	none	0
GGI 348/720 IRA 840 NA 029	GI/GE-doped	348	720	0.29	Acrylate	840	none	0
GGI 412.5/720 IRA 840 NA 0275	GI/GE-doped	412.5	720	0.275	Acrylate	840	none	0

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Fiber Design Name	Wavelength	Core [µm]	Cladding [µm]	NA +/- 0.02	Coating	Coating [µm]	Buffer & Color	Buffer [µm]
AS 200/240 IRHCT 270/420 blue	VIS/IR	200	240	0.22	Low index polymer	270	ETFE blue	420
AS 230/253 IRHCN 300/450 black	VIS/IR	230	253	0.22	Low index polymer	300	Nylon black	450
AS 230/276 IRHCT 305/430 black	VIS/IR	230	276	0.22	Low index polymer	305	ETFE black	430
AS 230/276 IRHCT 305/430 blue	VIS/IR	230	276	0.22	Low index polymer	305	ETFE blue	430
AS 272/300 IRHCN 330/420 blue	VIS/IR	272	300	0.22	Low index polymer	330	Nylon blue	420
AS 272/300 IRHCT 330/420 blue	VIS/IR	272	300	0.22	Low index polymer	330	ETFE blue	420
AS 272/325 IRHCT 355/430 blue	VIS/IR	272	325	0.22	Low index polymer	355	ETFE blue	430
AS 365/400 IRHCT 430/580 black	VIS/IR	365	400	0.22	Low index polymer	430	ETFE black	580
AS 365/400 IRHCT 430/580 blue	VIS/IR	365	400	0.22	Low index polymer	430	ETFE blue	580
AS 400/420 IRHCN 450/600 white	VIS/IR	400	420	0.22	Low index polymer	450	Nylon white	600
AS 400/420 IRHCT 450/900 white	VIS/IR	400	420	0.22	Low index polymer	450	ETFE white	900
AS 400/440 IRHCT 470/610 blue	VIS/IR	400	440	0.22	Low index polymer	470	ETFE blue	610
AS 400/440 IRHCT 510/610 blue	VIS/IR	400	440	0.22	Low index polymer	510	ETFE blue	610
AS 500/525 IRHCN 560/750 white	VIS/IR	500	525	0.22	Low index polymer	560	Nylon white	750
AS 550/578 IRHCT 605/1400 white	VIS/IR	550	578	0.22	Low index polymer	605	ETFE white	1400
AS 550/605 IRHCT 635/780 blue	VIS/IR	550	605	0.22	Low index polymer	635	ETFE blue	780
AS 600/660 IRHCT 700/870 black	VIS/IR	600	660	0.22	Low index polymer	700	ETFE black	870
AS 600/660 IRHCT 700/870 blue	VIS/IR	600	660	0.22	Low index polymer	700	ETFE blue	870
AS 600/720 IRHCN 760/1100 transp	VIS/IR	600	720	0.22	Low index polymer	760	Nylon transp.	1100
AS 800/880 IRHCT 940/1200 blue	VIS/IR	800	880	0.22	Low index polymer	940	ETFE blue	1200
AS 900/990 IRHCT 1090/1400 blue	VIS/IR	900	990	0.22	Low index polymer	1090	ETFE blue	1400
AS 945/1000 IRHCT 1100/1400 blue	VIS/IR	945	1000	0.22	Low index polymer	1100	ETFE blue	1400

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Fiber Design Name	Wavelength	Core [µm]	Cladding [µm]	NA +/- 0.02	Coating	Coating [µm]	Buffer & Color	Buffer [µm]
AS 1000/1100 IRHCN 1200/1400 blue	VIS/IR	1000	1100	0.22	Low index polymer	1200	Nylon blue	1400
AS 1000/1100 IRHCT 1180/1400 blue	VIS/IR	1000	1100	0.22	Low index polymer	1180	ETFE blue	1400
AS 1000/1100 IRHCT 1200/1400 blue	VIS/IR	1000	1100	0.22	Low index polymer	1200	ETFE blue	1400
ASHE 1034/1086 IRHC 1200 NA 020	VIS/IR	1034	1086	0.20	Low index polymer	1200	none	0
ASHE 1034/1086 IRHCT 1200/1400 blue NA 020	VIS/IR	1034	1086	0.20	Low index polymer	1200	ETFE blue	1400
AS 1200/1320 IRHCN 1400/1600 transp	VIS/IR	1200	1320	0.22	Low index polymer	1400	Nylon transp.	1600
AS 1200/1320 IRHCN 1400/1600 white	VIS/IR	1200	1320	0.22	Low index polymer	1400	Nylon white	1600

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Fiber Design Name	Wavelength	Core [µm]	Cladding [µm]	NA +/- 0.02	Coating	Coating [µm]	Buffer & Color	Buffer [µm]
AS 50/60 IRPI 65	VIS/IR	50	60	0.22	Polyimide	65	none	0
FGI 50/125 BBPI 140 NA 020	GI/F-doped	50	125	0.20	Polyimide	140	none	0
AS 90/110 IRPI 130	VIS/IR	90	110	0.22	Polyimide	130	none	0
AS 91/100 BBPI 107	Broadband	91	100	0.22	Polyimide	107	none	0
AS 100/110 BBPI 130	Broadband	100	110	0.22	Polyimide	130	none	0
AS 100/110 UVPI 125	UV/VIS	100	110	0.22	Polyimide	125	none	0
AS 114/125 IRPI 153	VIS/IR	114	125	0.22	Polyimide	153	none	0
AS 114/125 IRPI 140	VIS/IR	114	125	0.22	Polyimide	140	none	0
AS 150/165 IRPI 190	VIS/IR	150	165	0.22	Polyimide	190	none	0
AS 150/165 USPI 190	Solaris. stable	150	165	0.22	Polyimide	190	none	0
AS 190/200 UVPI 220	UV/VIS	190	200	0.22	Polyimide	220	none	0
AS 200/208 UVPI 225	UV/VIS	200	208	0.22	Polyimide	225	none	0
AS 200/220 BBPI 240	Broadband	200	220	0.22	Polyimide	240	none	0
AS 200/220 IRPI 240	VIS/IR	200	220	0.22	Polyimide	240	none	0
AS 200/220 IRPIT 240/500 black	VIS/IR	200	220	0.22	Polyimide	240	ETFE black	500
AS 200/220 RRPI 240	Radiation res.	200	220	0.22	Polyimide	240	none	0
AS 200/220 USPI 240	Solaris. stable	200	220	0.22	Polyimide	240	none	0
AS 200/240 IRPI 265	VIS/IR	200	240	0.22	Polyimide	265	none	0
AS 220/240 IRPI 270	VIS/IR	220	240	0.22	Polyimide	270	none	0
AS 250/275 IRPIT 305/650 black NA 010	VIS/IR	250	275	0.10	Polyimide	305	ETFE black	650
AS 273/300 IRPI 325	VIS/IR	273	300	0.22	Polyimide	325	none	0
AS 300/330 IRPI 350	VIS/IR	300	330	0.22	Polyimide	350	none	0
AS 300/330 IRPIT 355/700 black	VIS/IR	300	330	0.22	Polyimide	350	ETFE black	700

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Fiber Design Name	Wavelength	Core [µm]	Cladding [µm]	NA +/- 0.02	Coating	Coating [µm]	Buffer & Color	Buffer [µm]
AS 317/330 IRPI 370	VIS/IR	317	330	0.22	Polyimide	370	none	0
AS 320/385 IRPI 415	VIS/IR	320	385	0.22	Polyimide	415	none	0
AS 350/385 IRPI 415	VIS/IR	350	385	0.22	Polyimide	415	none	0
AS 360/395 IRPI 420	VIS/IR	360	395	0.22	Polyimide	420	none	0
AS 400/440 IRPI 465	VIS/IR	400	440	0.22	Polyimide	465	none	0
AS 400/440 IRPIT 470/700 black	VIS/IR	400	440	0.22	Polyimide	470	ETFE black	700
AS 500/550 IRPIT 575/1000 black	VIS/IR	500	550	0.22	Polyimide	575	ETFE black	1000
AS 600/660 BBPI-M 690	Broadband	600	660	0.22	Polyimide	690	none	0
AS 600/660 BBPIT 690/1000 black	Broadband	600	660	0.22	Polyimide	690	ETFE black	1000
AS 600/660 BBPIT 690/1000 transp	Broadband	600	660	0.22	Polyimide	690	ETFE transp.	1000
AS 600/660 IRPI 690	VIS/IR	600	660	0.22	Polyimide	690	none	0
AS 600/660 IRPIT 685/1000 black	VIS/IR	600	660	0.22	Polyimide	685	ETFE black	1000
AS 600/660 USPIT 690/1000 black	Solaris. stable	600	660	0.22	Polyimide	690	ETFE black	1000
AS 600/660 UVPI 680	UV/VIS	600	660	0.22	Polyimide	680	none	0
AS 1000/1100 BBPI 1130	Broadband	1000	1100	0.22	Polyimide	1130	none	0
AS 1000/1100 UVPI 1130	UV/VIS	1000	1100	0.22	Polyimide	1130	none	0

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Fiber Design Name	Wavelength	Core [µm]	Cladding [µm]	NA +/- 0.02	Coating	Coating [µm]	Buffer & Color	Buffer [µm]
AS 200/220 IRST 305/420 blue	VIS/IR	200	220	0.22	Silicone	305	ETFE blue	420
AS 200/240 IRST 305/420 blue	VIS/IR	200	240	0.22	Silicone	305	ETFE blue	420
ASRE 200/400 UVSN 580/2000 transp	UV/VIS	200	400	0.22	Silicone	580	Nylon transp.	2000
AS 272/300 IRST 420/580 blue	VIS/IR	272	300	0.22	Silicone	420	ETFE blue	580
AS 365/400 IRST 500/700 blue	VIS/IR	365	400	0.22	Silicone	500	ETFE blue	700
AS 400/440 IRST 580/800 blue	VIS/IR	400	440	0.22	Silicone	580	ETFE blue	800
AS 400/440 IRSP 550/650 transp	VIS/IR	400	440	0.22	Silicone	550	PFA transp.	650
AS 550/605 IRST 750/900 blue	VIS/IR	550	605	0.22	Silicone	750	ETFE blue	900
AS 600/660 IRSP 770/1000 transp	VIS/IR	600	660	0.22	Silicone	770	PFA transp.	1000
AS 600/660 IRST 770/1000 white	VIS/IR	600	660	0.22	Silicone	770	ETFE white	1000
AS 600/660 IRST 810/1100 black	VIS/IR	600	660	0.22	Silicone	810	ETFE black	1100
AS 600/660 IRST 850/1000 blue	VIS/IR	600	660	0.22	Silicone	850	ETFE blue	1000
AS 600/660 UVSN 850/1050 blue	VIS/IR	600	660	0.22	Silicone	850	Nylon blue	1050
AS 800/880 IRSN 1020/1300 transp NA 014	VIS/IR	800	880	0.14	Silicone	1020	Nylon transp.	1300
AS 800/880 IRST 1030/1550 transp	VIS/IR	800	880	0.22	Silicone	1030	ETFE transp.	1550
AS 1000/1100 IRST 1300/1600 blue	VIS/IR	1000	1100	0.22	Silicone	1300	ETFE blue	1600
AS 1000/1100 IRST 1300/1600 transp	VIS/IR	1000	1100	0.22	Silicone	1300	ETFE transp.	1600
AS 1000/1100 UVSST 1300/1600 transp	UV/VIS	1000	1100	0.22	Silicone	1300	ETFE transp.	1600

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Fiber Design Name	Wavelength	Core [µm]	Cladding 1 [µm]	Cladding 2 [µm]	Cladding 3 [µm]	NA +/- 0.02	Coating	Coating [µm]	Buffer & Color	Buffer [µm]
AS 50/330 DC IRSN 430/700 blue	VIS/IR	50	65	330		0.22	Silicone	430	Nylon blue	700
AS 50/330 DC IRSN 430/700 blue	VIS/IR	50	70	330		0.22	Silicone	430	Nylon blue	700
AS 100/360 DC IRSN 480/650 blue	VIS/IR	100	120	360		0.22	Silicone	480	Nylon blue	650
AS 100/330 DC IRSN 430/700 transp	VIS/IR	100	130	330		0.22	Silicone	430	Nylon transp.	700
AS 100/330 DC IRSN 430/700 transp	VIS/IR	100	140	330		0.22	Silicone	430	Nylon transp.	700
AS 108/259 DC IRPI 285	VIS/IR	108	151	259		0.22	Polyimide	285	none	0
AS 108/290 DC IRPIN 320/650 black	VIS/IR	108	151	290		0.22	Polyimide	320	Nylon black	650
AS 200/360 DC IRSN 480/650 blue	VIS/IR	200	220	360		0.22	Silicone	480	Nylon blue	650
AS 200/720 DC IRST 880/1550 transp	VIS/IR	200	280	720		0.22	Silicone	880	ETFE transp.	1550
AS 300/360 DC IRST 480/650 transp	VIS/IR	300	330	360		0.22	Silicone	480	ETFE transp.	650
AS 300/720 DC IRPIT 745/1550 transp	VIS/IR	300	420	720		0.22	Polyimide	745	ETFE transp.	1550
AS 300/720 DC IRST 880/1550 transp	VIS/IR	300	420	720		0.22	Silicone	880	ETFE transp.	1550
AS 400/720 DC IRST 880/1550 transp	VIS/IR	400	560	720		0.22	Silicone	880	ETFE transp.	1550
AS 400/720 TC IRSN 900/1100 blue NA 023	VIS/IR	400	420	700	720	0.23	Silicone	900	Nylon blue	1100
AS 600/1080 TC IRSN 1300/1600 blue	VIS/IR	600	630	1045	1080	0.22	Silicone	1300	Nylon blue	1600
AS 1000/1200 TC IRSN 1300/1600 blue	VIS/IR	1000	1040	1170	1200	0.22	Silicone	1300	Nylon blue	1600

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Fiber Design Name	Wavelength	Core [µm]	Cladding [µm]	NA +/- 0.02	Coating	Coating [µm]	Buffer & Color	Buffer [µm]
AS 100/110 BBPI 125	Broadband	100	110	0.22	Polyimide	130	none	0
AS 1000/1100 BBPI 1130	Broadband	1000	1100	0.22	Polyimide	1130	none	0
AS 200/220 BBPI 240	Broadband	200	220	0.22	Polyimide	240	none	0
AS 600/660 BBPI 690	Broadband	600	660	0.22	Polyimide	690	none	0
AS 600/660 BBPIT 690/1000 black	Broadband	600	660	0.22	Polyimide	690	ETFE black	1000
AS 600/660 BBPIT 690/1000 transp	Broadband	600	660	0.22	Polyimide	690	ETFE transp.	1000
AS 91/100 BBPI 107	Broadband	91	100	0.22	Polyimide	107	none	0
FGI 50/125 BBPI 140 NA 020	GI/F-doped	50	125	0.20	Polyimide	140	none	0
GGI 50/125 IRPI 145 NA 020	GI/GE-doped	50	125	0.20	Polyimide	145	none	0
GGI 185/230 IRAA 500 NA 036	GI/GE-doped	185	230	0.36	Acrylate	500	none	0
GGI 200/280 IRAA 500 NA 030	GI/GE-doped	200	280	0.30	Acrylate	500	none	0
GGI 200/400 IRA 640 NA 029	GI/GE-doped	200	400	0.29	Acrylate	640	none	0
GGI 230/400 IRA 530 NA 0275	GI/GE-doped	230	400	0.275	Acrylate	530	none	0
GGI 330/720 IRA 840 NA 0275	GI/GE-doped	330	720	0.275	Acrylate	840	none	0
GGI 348/720 IRA 840 NA 029	GI/GE-doped	348	720	0.29	Acrylate	840	none	0
GGI 412.5/720 IRA 840 NA 0275	GI/GE-doped	412.5	720	0.275	Acrylate	840	none	0
GGI 60/150 HCA 200/260 transp NA 0085	GI/GE-doped	60	150	0.085	Hard Clad	200	Acrylate transp.	260
AS 1000/1100 UVSST 1300/1600 transp	Solaris. stable	1000	1100	0.22	Silicone	1300	ETFE transp.	1600
AS 150/165 USPI 190	Solaris. stable	150	165	0.22	Polyimide	190	none	0
AS 200/220 RRPI 240	Radiation res.	200	220	0.22	Polyimide	240	none	0
AS 200/220 USPI 240	Solaris. stable	200	220	0.22	Polyimide	240	none	0
AS 600/660 USPIT 690/1000 black	Solaris. stable	600	660	0.22	Polyimide	690	ETFE black	1000

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Fiber Design Name	Wavelength	Core [µm]	NA +/- 0.02	Cladding	Cladding [µm]	Buffer & Color	Buffer [µm]
HPCS 200/230 UVHC	UV/VIS	200	0.37	Low index polymer	230	none	0
HPCS 200/230 UVHC NA 048	UV/VIS	200	0.48	Low index polymer	230	none	0
HPCS 400/460 UVHC NA 048	UV/VIS	400	0.48	Low index polymer	460	none	0
HPCS 400/460 UVHCT 680 black NA 048	UV/VIS	400	0.48	Low index polymer	460	ETFE black	680
HPCS 1000/1160 UVHCT 1350 transp NA 048	UV/VIS	1000	0.48	Low index polymer	1160	ETFE transp.	1350
HPCS 1000/1160 UVHCT 1350 transp NA 052	UV/VIS	1000	0.52	Low index polymer	1160	ETFE transp.	1350
HPCS 200/230 IRHC NA 048	VIS/IR	200	0.48	Low index polymer	230	none	0
HPCS 220/265 IRHC transp	VIS/IR	220	0.37	Low index polymer	265	none	0
HPCS 300/330 IRHCN 600 transp	VIS/IR	300	0.37	Low index polymer	330	Nylon transp.	600
HPCS 400/430 IRHCN 730 white	VIS/IR	400	0.37	Low index polymer	430	Nylon white	730
HPCS 400/430 IRHCN 800 white	VIS/IR	400	0.37	Low index polymer	430	Nylon white	800
HPCS 400/430 IRHCN 750 transp	VIS/IR	400	0.37	Low index polymer	430	Nylon transp.	750
HPCS 400/460 IRHC transp	VIS/IR	400	0.37	Low index polymer	460	none	0
HPCS 600/630 IRHC	VIS/IR	600	0.37	Low index polymer	630	none	0
HPCS 600/650 IRHCN 850 white	VIS/IR	600	0.37	Low index polymer	650	Nylon white	850
HPCS 600/630 IRHCN 950 white	VIS/IR	600	0.37	Low index polymer	630	Nylon white	950
HPCS 600/630 IRHCN 950 blue	VIS/IR	600	0.37	Low index polymer	630	Nylon blue	950
HPCS 600/630 IRHCT 950 blue	VIS/IR	600	0.37	Low index polymer	630	ETFE blue	950
HPCS 600/630 IRHCT 950 transp	VIS/IR	600	0.37	Low index polymer	630	ETFE transp.	950
HPCS 1000/1160 IRHCT 1400 transp NA 048	VIS/IR	1000	0.48	Low index polymer	1160	ETFE transp.	1400
HPCS 1000/1160 IRHCT 1400 transp NA 052	VIS/IR	1000	0.52	Low index polymer	1160	ETFE transp.	1400

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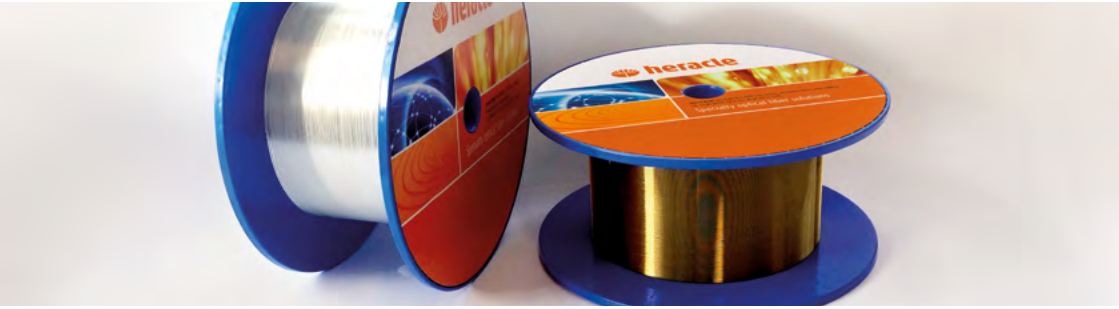
Fiber Design Name	Wavelength	Core [µm]	Cladding [µm]	NA +/- 0.02	Coating	Coating [µm]
AS 50/125 IRMG 155	VIS/IR	50	125	0.22	Gold	155
AS 105/125 IRMG 155	VIS/IR	105	125	0.22	Gold	155
AS 200/220 IRMG 255	VIS/IR	200	220	0.22	Gold	255
AS 300/330 IRMG 380	VIS/IR	300	330	0.22	Gold	380
AS 400/440 IRMG 510	VIS/IR	400	440	0.22	Gold	510
AS 50/125 UVMG 155	UV/VIS	50	125	0.22	Gold	155
AS 105/125 UVMG 155	UV/VIS	105	125	0.22	Gold	155
AS 200/220 UVMG 255	UV/VIS	200	220	0.22	Gold	255
AS 300/330 UVMG 380	UV/VIS	300	330	0.22	Gold	380
AS 400/440 UVMG 510	UV/VIS	400	440	0.22	Gold	510
SM 09/125 IRMG 155 NA 012	VIS/IR	9	125	0.12	Gold	155
GGI 50/125 IRMG 155 NA 020	GI/GE-doped	50	125	0.20	Gold	155
GGI 62.5/125 IRMG 155 NA 0275	GI/GE-doped	62.5	125	0.275	Gold	155



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Fiber Design Name	Wavelength	Core [µm]	Cladding [µm]	NA +/- 0.02	Coating	Coating [µm]
AS 50/125 IRMA 175	VIS/IR	50	125	0.22	Aluminum	175
AS 100/110 IRMA 150	VIS/IR	100	110	0.22	Aluminum	150
AS 105/125 IRMA 175	VIS/IR	105	125	0.22	Aluminum	175
AS 200/220 IRMA 280	VIS/IR	200	220	0.22	Aluminum	280
AS 300/330 IRMA 430	VIS/IR	300	330	0.22	Aluminum	430
AS 400/440 IRMA 530	VIS/IR	400	440	0.22	Aluminum	530
AS 50/125 UVMA 175	UV/VIS	50	125	0.22	Aluminum	175
AS 100/110 UVMA 150	UV/VIS	100	110	0.22	Aluminum	150
AS 105/125 UVMA 175	UV/VIS	105	125	0.22	Aluminum	175
AS 200/220 UVMA 280	UV/VIS	200	220	0.22	Aluminum	280
AS 300/330 UVMA 430	UV/VIS	300	330	0.22	Aluminum	430
AS 400/440 UVMA 530	UV/VIS	400	440	0.22	Aluminum	530
SM 09/125 IRMA 175 NA 012	VIS/IR	9	125	0.12	Aluminum	175
GGI 50/125 IRMA 175 NA 020	GI/GE-doped	50	125	0.20	Aluminum	175
GGI 62.5/125 IRMA 175 NA 0275	GI/GE-doped	62.5	125	0.275	Aluminum	175
AS 200/220 USMA 280	Solaris. stable	200	220	0.22	Aluminum	280
AS 400/440 USMA 530	Solaris. stable	400	440	0.22	Aluminum	530

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Capillaries

Heracle offers capillaries, which are ideal for numerous applications throughout the medical and scientific industries. Standard capillaries are drawn from undoped synthetic fused silica tubes following closely controlled manufacturing processes.

The high strength capillaries are available as thick-walled fused silica with several options:

- Without coating
- Outside diameter typically ranges from 1000 µm to > 2000 µm
- Inner diameter can be customized matching your specific requirement in your application and typically ranges from 400 µm to 800 µm
- Synthetic silica with low OH content

Customized options of capillaries can be produced upon request and include:

- With coating: Polyimide or Acrylate (low or high refractive index)
- F-doped and undoped silica layers
- Synthetic silica with high OH content

Capillary Name	Material	ID [µm]	OD [µm]
CAP 460 x 1000	Fused silica (F300)	460	1000
CAP 480 x 1000	Fused silica (F300)	480	1000
CAP 480 x 1800	Fused silica (F300)	480	1800
CAP 615 x 1800	Fused silica (F300)	615	1800
CAP 640 x 1800	Fused silica (F300)	640	1800
CAP 660 x 1800	Fused silica (F300)	660	1800
CAP 700 x 1800	Fused silica (F300)	700	1800
CAP 770 x 2050	Fused silica (F300)	770	2050

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