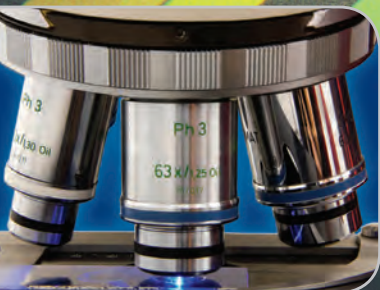


Precision Molded Aspheric Lenses

Standard Aspheric Designs for Easy Integration



- Industrial Laser Guides & Tools
- Infrared Systems
- Biomedical & Scientific
- Measurement Systems & Metrology
- Telecommunications Optics
- Data Storage



AMS Technologies is Europe's leading solution provider and distributor for Optical, Power and Thermal Management Technologies

WHERE TECHNOLOGIES MEET SOLUTIONS

For more than 30 years, we at AMS Technologies have been supporting the European market with leading, innovative technologies and products that have allowed our customers to take prime position in their chosen markets.

AMS Technologies is a leading solution provider and distributor of high-tech, leading-edge components, systems and equipment, with more than 30 years of experience to date and currently serving more than 2000 European customers.

We are the specialists in both componentry and complete solutions for Optical technology, Thermal Management and Power Technology fields, with access to and long standing relationships with the most advanced manufacturers in each of those fields. Drawing extensively on our experience in each of these differing technologies, and coupling this with our broad system-level competence, we are able to offer seamless and comprehensive solutions incorporating complementary aspects from all three key technology fields.

With an appropriate technical education, an element of entrepreneurial spirit and many years of design and consultancy expertise, our sales engineers can rapidly comprehend system requirements and provide you the customer with a solution that goes way beyond a simple understanding of our product datasheets. We take active involvement in the design cycle, defining and re-defining your specifications, and

leading in many cases to highly specific, customized products and solutions. Helping you to effectively outsource your production line, we can even provide you with the necessary leading turnkey contract manufacturing services in our key competency fields.

AMS Technologies has been delivering solutions into a variety of high-tech markets, including renewable energies, medical, defence & aerospace, research & scientific and various other industrial segments. Our customer base consists of Europe's largest leading technology corporations, a network of universities and research institutes as well as the most promising start-ups.

We thrive by working in a 'customer first' environment. Our pan-European customers are serviced from a network of local offices in Germany, the UK, France, Italy, Spain, Poland and Sweden, with a focused operations and logistics centre located in Munich, Germany.

Our commitment: Identifying the best solution for your project enabling you to become your customers' first choice!

Your AMS Technologies team



- Optical Technologies
- Power Technologies
- Thermal Management

PRECISION MOLDED ASPHERIC LENSES

Aspheric lenses are known for their optimal performance but the expense of fabricating them has inhibited their use. Our partner's glass molding technology has enabled the production of high volumes of aspheric optics while still maintaining the highest quality at an affordable price.

Molded lenses are used in a variety of photonics products: barcode scanners, laser diode to fiber couplings, optical data storage, and medical lasers, to name a few. In many of these applications, the material of choice is optical glass because of its durability and performance stability over a wide environmental range. High power transmittance is also an added advantage.

The pickaLENS program



AMS Technologies has invested into the pickaLENS program offering customers off the shelf availability of a large number of different standard aspheres. Standard design assemblies are available for our most popular lens types, but any asphere in our catalog

can be mounted into a custom assembly of your choice.

From concept through prototyping, volume production, and global distribution, AMS Technologies has the optical knowledge and manufacturing expertise to be your optics partner every step of the way.

Our aspheric lenses are inspected and optically tested to ensure complete customer satisfaction. Visual cosmetic inspection for scratch/dig is performed on 100% of all lenses per MIL-PRF-13830B. Most lenses are guaranteed to pass 40/20 scratch/dig, but other inspection criteria, such as 60/40 or 20/10, can be provided upon request.

The selection guide to these preferred standard aspheric designs can be found on the next two pages or online:

www.amstechnologies-webshop.com/aspheres

For large volume applications we recommend to call your regional AMS Technologies office, so that we can tailor a solution based on your technical needs.



Asphere optics can actually improve system performance and lower overall cost

Molded lenses are used in a variety of photonics products: barcode scanners, laser diode to fiber couplings, optical data storage, and medical lasers, to name a few. In many of these applications, the material of choice is optical glass because of its durability and performance stability over a wide environmental range. High power transmittance is also an added advantage.

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Standard Aspheric Designs

Lens Code	UVA-coating 350-500nm	A-coating 350-700nm	B-coating 600-1050nm	C-coating 1050-1600nm	DW - Design Wavelength nm	EFL - Focal Length	Numerical Aperture	Clear Aperture	Outer Diameter
352022		352022A	352022B	352022C	780	4.47	0.47	4.20	5.42
352080		352080A	352080B	352080C	780	3.89	0.55	4.29	6.33
352110		352110A	352110B	352110C	780	6.24	0.40	5.00	7.20
352125		352125A	352125B	352125C	633	10	0.49	10	11
352140		352140A	352140B	352140C	780	1.45	0.55	1.60	2.40
352150		352150A	352150B	352150C	780	2.00	0.50	2.00	3.00
352170		352170A	352170B	352170C	780	6.16	0.30	3.70	4.70
352220		352220A	352220B	352220C	633	11.00	0.25	5.50	7.22
352230		352230A	352230B	352230C	780	4.51	0.55	4.95	6.33
352240		352240A	352240B	352240C	780	8.00	0.50	8.00	9.94
352260		352260A	352260B	352260C	780	15.29	0.16	5.00	6.50
352280		352280A	352280B	352280C	780	18.40	0.15	5.50	6.50
352330		352330A	352330B	352330C	830	3.10	0.68	5.00	6.33
352340		352340A	352340B	352340C	685	4.03	0.62	5.00	6.33
352350		352350A	352350B	352350C	980	4.50	0.42	3.70	4.70
352440		352440A	352440B	352440C	980	2.95	0.53/0.27	4.00/4.20	4.70
352450		352450A	352450B	352450C	980	1.16	0.30/0.30	1.15/1.15	1.80
352610		352610A	352610B	352610C	410	4.00	0.60	4.80	6.325
352671		352671A	352671B	352671C	408	4.02	0.60	4.80	6.33
352673		352673A	352673B	352673C	408	4.02	0.60	4.80	6.33
352710		352710A	352710B	352710C	1550	1.49	0.50	1.50	2.65
352-A375		352-A375A	352-A375B	352-A375C	780	7.50	0.30	4.50	6.51
352-A390		352-A390A	352-A390B	352-A390C	655	4.60	0.53	4.89	6.00
352-A397		352-A397A	352-A397B	352-A397C	670	11.00	0.30	6.59	7.20
353515		353515A			515	3.52	0.40	2.70	3.00
353525		353525A			515	6.69	0.45	5.75	6.33
354057		354057A	354057B	354057C	633	13.00	0.20	5.20	6.33
354058		354058A	354058B	354058C	633	12.00	0.22	5.20	6.33
354059		354059A	354059B	354059C	633	14.00	0.19	5.20	6.33
354060		354060A	354060B	354060C	633	9.60	0.30	5.20	6.33
354061		354061A	354061B	354061C	633	11.00	0.24	5.20	6.33
354062		354062A	354062B	354062C	633	11.00	0.24	5.20	6.00
354064		354064A	354064B	354064C	633	11.00	0.24	5.20	.00
354105		354105A	354105B	354105C	633	5.50	0.56	6.00	7.20
354115		354115A	354115B	354115C	633	6.75	0.54	7.00	9.20
354120		354120A	354120B	354120C	670	15.04	0.15	4.50	4.99
354130		354130A	354130B	354130C	1550	6.00	0.21	2.50	3.00
354140		354140A	354140B	354140C	780	1.45	0.58	1.60	2.40
354171		354171A	354171B	354171C	633	6.20	0.30	3.70	4.70
354220		354220A	354220B	354220C	633	11.00	0.25	5.50	7.22
354260		354260A	354260B	354260C	780	15.29	0.16	5.00	6.50
354280		354280A	354280B	354280C	780	18.40	0.15	5.50	6.50
354306		354306A	354306B	354306C	650	9.85	0.27	5.20	6.35
354330		354330A	354330B	354330C	830	3.10	0.68	5.00	6.33
354340		354340A	354340B	354340C	685	4.03	0.64	5.10	6.33
354350		354350A	354350B	354350C	980	4.50	0.43	3.70	4.70
354430		354430A	354430B	354430C	1550	5.00	0.15	1.60	2.00
354450		354450A	354450B	354450C	980	1.16	0.30/0.30	1.14	1.80
354453		354453A	354453B	354453C	655	4.60	0.55	4.80	6.00
354550		354550A	354550B	354550C	1550	6.10	0.18	2.20	2.79
354560		354560A	354560B	354560C	650	13.86	0.18	5.10	6.33
354710		354710A	354710B	354710C	1550	1.49	0.53	1.50	2.65
354850		354850A	354850B	354850C	670	22.00	0.13	5.50	6.33
354996		354996A	354996B	354996C	634	4.50	0.30	2.70	3.00
355022		355022A	355022B	355022C	780	4.47	0.47	4.20	5.42
355070		355070A	355070B	355070C	1550	0.43	0.06/0.66	0.62	1.20
355110		355110A	355110B	355110C	780	6.24	0.40	5.00	7.20
355150		355150A	355150B	355150C	780	2.00	0.51	2.20	3.00
355151		355151A	355151B	355151C	780	2.00	0.50	2.00	3.00
355160		355160A	355160B	355160C	780	2.73	0.55	3.00	4.00
355200		355200A	355200B	355200C	1300	1.14	0.43/0.12	1.23	240
355201		355201A	355201B	355201C	1300	1.14	0.43/0.12	1.23	2.40
355230		355230A	355230B	355230C	780	4.51	0.55	5.07	6.33
355330		355330A	355330B	355330C	830	3.10	0.77	5.00	6.33
355375		355375A	355375B	355375C	780	7.50	0.30	4.54	6.51
355390		355390A	355390B	355390C	830	2.75	0.55	3.60	4.50
355392		355392A	355392B	355392C	830	2.75	0.64	3.60	4.00
355397		355397A	355397B	355397C	670	11.00	0.30	6.68	7.20
355410		355410A	355410B	355410C	1550	2.51	0.20	1.01	1.80
355440		355440A	355440B	355440C	980	2.76	0.26/0.52	4.12	4.70
355460		355460A	355460B	355460C	1550	0.55	0.50/0.10	0.40	1.00
355485		355485A	355485B	355485C	1550	0.55	0.50/0.10	0.35	1.40
355487		355487A	355487B	355487C	1550	0.55	0.50/0.11	0.35	1.00
355536		355536A	355536B	355536C	1310	0.60	0.60	0.72	1.24
355561		355561A	355561B	355561C	850	10.04	0.60	12.50	15.00
355615		355615A	355615B	355615C	1550	2.51	0.20	1.01	2.05
355631		355631A	355631B	355631C	1310	0.39	0.55/0.13	0.37	1.20
355660		355660A	355660B	355660C	1550	2.97	0.60	3.60	4.00
355755		355755A	355755B	355755C	1577	1.94	0.15/0.15	1.10	1.70
355840		355840A	355840B	355840C	940	0.75	0.47	0.71	1.40
355880		355880A	355880B	355880C	1550	0.70	0.60	0.84	1.20
355915		355915A	355915B	355915C	1550	0.80	0.12/0.50	1.00	1.30
355940		355940A	355940B	355940C	1550	4.02	0.17	1.37	1.82
355945		355945A	355945B	355945C	1550	2.51	0.32	1.60	2.10
355950		355950A	355950B	355950C	1550	1.81	0.37	1.35	1.78
355960		355960A	355960B	355960C	1550	1.00	0.62	1.20	1.82
355970		355970A	355970B	355970C	1550	3.70	0.21	1.56	1.80
356300	356300UVA				405	2.54	0.66	3.30	4.00
356785	356785UVA				488	1.42	0.62	1.70	2.75
357610	357610UVA				410	4.003	0.62	4.80	6.33
357765	357765UVA				488	4.00	0.61	4.80	6.33
357775	357775UVA				408	4.02	0.60	4.80	6.33
357786	357786UVA				488	1.41	0.5	1.42	2



Lens Code	Working Distance	RMS WFE (max)	Center Thickness	Scratch/Dig	Magnification	Glass Type	Recommended lens replacement	Repl. lens code
352022	3.08		3.45		∞	ECO-550	355022	350022
352080	2.71	0.087	3.05	40-20	∞	ECO-550		350080
352110	3.394		5.36		∞	ECO-550	355110	350110
352125	7.81	0.027	4	60-40	∞	ECO-550	354125	
352140	0.88		1.00		∞	ECO-550	354140	350140
352150	1.09		2.00		∞	ECO-550	355150, 355151	350150
352170	4.38		3.48		∞	ECO-550	354171	350170
352220	7.97		5.00		∞	ECO-550	354220	350220
352230	2.92		2.94		∞	ECO-550	355230	350230
352240	5.92	0.087	3.69	40-20	∞	ECO-550	354240	350240
352260	14.0		2.20		∞	ECO-550	354260	350260
352280	17.13		2.17		∞	ECO-550		350280
352330	1.76		3.18		∞	ECO-550	354330	350330
352340	2.69		3.07		∞	ECO-550	354340	350340
352350	2.38		3.64		∞	ECO-550	354350	350350
352440	2.66/6.91		4.065		∞	ECO-550	355440	350440
352450	1.69/1.69		1.48		∞	ECO-550		350450
352610	2.73		3.04		∞	ECO-550	357610	350610
352671	2.37		3.036		∞	ECO-550	357775	350671
352673	2.39		3.02		∞	ECO-550	357775	350671
352710	1.1		0.88		∞	ECO-550		350710
352-A375	5.82		2.83	60-40	∞	ECO-550	355375	KODAK A375
352-A390	2.89		3.1	60-40	∞	ECO-550	354453	KODAK A390
352-A397	9.68		2.08	60-40	∞	ECO-550	355397	KODAK A397
353515	2.33	0.040	1.91	40-20	∞	H-FK61		
353525	4.87	0.050	2.85	40-20	∞	H-FK61		
354057	11.58	0.250	2.38	60-40	∞	D-ZK3		
354058	10.57	0.250	2.40	60-40	∞	D-ZK3		
354059	12.63	0.250	2.35	60-40	∞	D-ZK3		
354060	8.13	0.050	2.50	60-40	∞	D-ZK3		
354061	9.56	0.250	2.43	60-40	∞	D-ZK3		
354062	9.66	0.055	2.25	100-60	∞	D-ZK3		
354064	9.35	0.050	3.10	80-50	∞	D-ZK3		
354105	3.73	0.070	2.94	40-20	∞	D-ZK3		352105 40/20 Scratch-Dig
354115	4.26	0.087	4.08	60-40	∞	D-ZK3		352115 60/40 Scratch-Dig
354120	13.19	0.076	2.92	40-20	∞	D-ZK3		352120
354130	4.90	0.100	1.73	40-20	∞	D-ZK3		350130
354140	0.81	0.080	1.02	40-20	∞	D-ZK3		352140, 350140
354171	4.10	0.050	3.48	80-50	∞	D-ZK3		352170, 350171
354220	7.91	0.040	5.03	40-20	∞	D-ZK3		352220, 350220
354260	13.98	0.070	2.21	40-20	∞	D-ZK3		350260, 352260
354280	17.11	0.087	2.18	40-20	∞	D-ZK3		352280
354306	8.38	0.050	2.50	40-20	∞	D-ZK3		EPIN
354330	1.76	0.330	3.21	40-20	∞	D-ZK3		350330, 352330
354340	2.68	0.100	3.10	40-20	∞	D-ZK3		350340, 352340
354350	2.19	0.06	3.65	40-20	∞	D-ZK3		350350, 352350
354430	4.37	0.070	0.99	40-20	∞	D-ZK3		350430
354450	1.67	0.070	1.48	40-20	1.0	D-ZK3		350450
354453	2.71	0.070	3.14	40-20	∞	D-ZK3		352-A390
354550	4.87	0.173	1.93	40-20	∞	D-ZK3		350550
354560	12.11	0.070	2.77	40-20	∞	D-ZK3		350560
354710	1.02	0.08	0.86	40-20	∞	D-ZK3		350710
354850	20.41	0.070	2.65	40-20	∞	D-ZK3		350850
354996	3.46	0.100	1.78	60-40	∞	D-ZK3		
355022	3.08	0.070	3.27	40-20	∞	D-ZLaF52La		350022, 352022
355070	0.27	0.070	0.35	40-20	11.00	D-ZLaF52La		370070
355110	3.46	0.070	5.16	40-20	∞	D-ZLaF52La		352110, 350110
355150	1.45	N/A	1.92	40-20	∞	D-ZLaF52La		350150, 352150
355151	1.03	0.070	1.90	40-20	∞	D-ZLaF52La		352150, 350150
355160	2.37	0.070	1.43	40-20	∞	D-ZLaF52La		350160
355200	1.13	0.145	1.24	40-20	3.47	D-ZLaF52La		350200
355201	1.13	0.145	1.24	40-20	3.47	D-ZLaF52La		
355230	3.08	0.087	2.71	40-20	∞	D-ZLaF52La		350230, 352230
355330	1.59	0.50	2.71	40-20	∞	D-ZLaF52La		370330
355375	5.82	0.050	3.19	40-20	∞	D-ZLaF52La		352-A375
355390	2.16	0.093	1.90	40-20	∞	D-ZLaF52La		350390
355392	1.50	0.160	2.24	40-20	∞	D-ZLaF52La		350392
355397	10.01	0.070	1.95	60-40	∞	D-ZLaF52La		352-A397
355410	1.84	0.070	1.19	40-20	∞	D-ZLaF52La		352410
355440	2.71	0.60	2.83	40-20	2.00	D-ZLaF52La		352440, 350440
355460	2.95	0.050	0.78	40-20	5.00	D-ZLaF52La		
355485	3.03	0.04	0.66	40-20	5.00	D-ZLaF52La		
355487	2.94	0.04	0.78	40-20	4.55	D-ZLaF52La		
355536	0.22	0.035	0.87	40-20	∞	D-ZLaF52La		
355561	7.04	N/A	5.38	40-20	∞	D-ZLaF52La		
355615	1.73	0.070	1.38	40-20	∞	D-ZLaF52La		
355631	1.90	0.06	0.36	40-20	4.23	D-ZLaF52La		370631, 370634
355660	1.56	0.20	2.50	40-20	∞	D-ZLaF52La		350660
355755	3.57	0.040	1.00	40-20	1.0	D-ZLaF52La		Panasonic W357F194
355840	0.43	0.050	0.57	40-20	∞	D-ZLaF52La		370840 w/smaller NA
355880	0.33	0.040	0.66	40-20	∞	D-ZLaF52La		370880
355915	0.67	0.080	0.60	40-20	4.17	D-ZLaF52La		
355940	3.37	0.030	1.16	40-20	∞	D-ZLaF52La		370940
355945	1.76	0.070	1.33	40-20	∞	D-ZLaF52La		370945
355950	1.09	0.070	1.28	40-20	∞	D-ZLaF52La		370890, 370950
355960	0.24	0.12	1.34	40-20	∞	D-ZLaF52La		370960
355970	3.03	0.070	1.19	40-20	∞	D-ZLaF52La		370970
356300	1.55	0.070	1.82	40-20	∞	L-LaL12		
356785	0.86	0.050	1.08	20-10	∞	L-LaL12		
357610	2.69	0.140	2.95	40-20	∞	D-LaK6		350610, 352610
357765	2.37	0.10	2.92	20-10	∞	D-LaK6		
357775	2.41	0.150	2.90	40-20	∞	D-LaK6		350671, 352671, 352673
357786	1.2					D-LaK6		

ACCESSORIES FOR OPTICAL SETUPS

Optical adhesives for bonding lenses



Our optical adhesives are designed for fast, precision bonding and will simplify processes that require critical alignment or exact positioning.

These one part adhesives will set in seconds when exposed to ultraviolet light and can provide excellent

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You need precision dispensing units and accessories for fiberoptic patchcord production? Many accessories are available for our adhesives like dosing pumps, dosing systems, syringes, needles and many more.

Photonic opto-mechanical tools



Our opto mechanical components are perfectly attuned to each other. In most of our optic products from Siskiyou innovative features have been incorporated in the developmental phase, ensuring that they are and remain stable when used.

For many users, this is an important reason to apply opto mechanics for laser research from this company like optic mounts and other mechanicals.

Optic cleaning supplies for best performance



Cleaning your optical components will reduce troubleshooting time and problem investigation tremendously. AMS Technologies supplies optic cleaning tissues, absorbond cleanroom optic wipes, optic cleaning swabs, pump dispensers and many more.

We can find the best-suited solution for your need or application.

Tabletop carbon dioxide spray cleaning pen



The OZPEN is a versatile, precision, small surface area cleaning system for critical fiber optics and other manufacturing operations. The OZPEN generates and propels an adjustable spray of clean dry air or nitrogen containing small CO₂ particles to

efficiently remove foreign matter from a surface.

The OZPEN replaces or augments conventional solvent-aided wiping cleaning techniques which can spread, smear or shed, or redeposit trace residues and particles over critical surfaces.



Optical, Power and Thermal Management Technologies represent the biggest technological challenges facing any engineer.

OUR SOLUTION APPROACH

AMS Technologies' solution approach has helped hundreds of customer projects to move from concept to production. Helping you to understand our capabilities, we invite you to browse a list of the many projects that we have successfully completed over a timeframe closely approaching 30 years.

Our three key competencies Optical, Power and Thermal Management have no logical bits and bytes, nor industry qualification standards. Hence the design of a system and the choice of the right technology, supplier and products can only be based on knowledge and experience in those fields. AMS Technologies has built a comprehensive knowledge base in those three key competencies, enabling us to provide customers with complete solutions, over and above the mere product support for standard design aspheres we can provide.

- Development of customized specification sheets
- Effective project management of any product development
- Higher level design services for system-level prototypes
- Interdisciplinary system-level integrated design
- Appropriate subcontractor selection and production support
- Proper vetting of technologies and suppliers
- Simulations and modeling of system-level designs
- Installation, training and servicing

„LENS INSIDE“ AMS SOLUTIONS

LensAFM for optical microscopes



The Nanosurf LensAFM is an atomic force microscope that can be used instead of a normal objective lens on almost any optical microscope or profilometer. It greatly extends the resolution and measuring capabilities of these instruments. The LensAFM not only provides 3D surface topography information, but can be used to analyze various physical properties of a measurement sample as well.

Image: www.NANOSURF.com

3D Scanner for Documentation and Surveying



The ultra-portable 3D scanner from FARO enables fast, straightforward, and accurate measurements of objects and buildings. It records architectural façades, complex structures, production and supply facilities, accident sites, and large-volume components.

Image: www.FARO.com

Lens2Fiber fusing for up to 20 kW peak power



The High Power Fusion™ Fiber Collimators utilize patented fiber fusion technology to enable the collimators to be used at very high power. The fiber is laser fused directly to a plano-plano silica rod, resulting in an index matched transition from

fiber to rod without any glass to air interface to cause unwanted back-reflections. The technology alleviates the need to angle polish the fiber, which allows the system to remain coaxial.

enabling your ideas.

Optical, Power and Thermal Management Technologies

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