

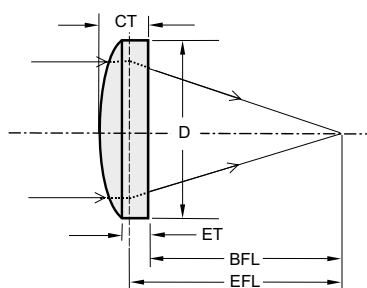
STANDARD PLANO-CONVEX AXICONS

| Apex angle ϕ , deg | Diameter D, mm | Edge thickness ET, mm | Centre thickness CT, mm | BK7 | | UV FS | |
|-------------------------|----------------|-----------------------|-------------------------|------------------|------------|------------------|------------|
| | | | | Catalogue number | Price, EUR | Catalogue number | Price, EUR |
| 140 | 25.4 | 8 | 12.6 | 130-0240 | 160 | 130-1240 | 283 |
| 160 | 25.4 | 8 | 10.2 | 130-0260 | 160 | 130-1260 | 283 |
| 165 | 25.4 | 8 | 9.7 | 130-0265 | 160 | 130-1265 | 283 |
| 170 | 25.4 | 8 | 9.1 | 130-0270 | 160 | 130-1270 | 283 |
| 175 | 25.4 | 8 | 8.6 | 130-0275 | 160 | 130-1275 | 283 |
| 178 | 25.4 | 8 | 8.2 | 130-0278 | 160 | 130-1278 | 283 |

Specifications

| Material | BK7, UV FS |
|----------------------|--|
| Surface quality | 60 – 40 scratch & dig (MIL-PRF-13830B) |
| Clear aperture | 90% of the diameter |
| Diameter tolerance | +0.00 / -0.12 mm |
| Angle tolerance | $\pm 0.5^\circ$ |
| Surface irregularity | S1 (conical): $\pm 2.5 \mu\text{m}$ S2 (flat): $\lambda @ 633 \text{ nm}$ |

PRECISION ASPHERICAL LENSES



Aspherical lenses are designed to reduce spherical aberration. Complex multi-lens systems designed for compensation of spherical aberration can often be replaced with a single aspheric lens. We can produce aspherical lenses of custom design using your drawings or specifications in our CNC lens polishing facility.

Specifications

| | |
|--------------------------------------|--|
| Standard material [Refractive index] | N-BK7 [1.517] S-LAH64 [1.788] UVFS [1.453] |
| Design wavelength | 780 nm |
| Surface quality | 40 – 20 scratch & dig (uncoated) |
| Clear aperture | >90% of diameter |
| Diameter tolerance | +0.0 / -0.05 mm |
| Bevel | 0.3 mm max @ 45° |
| Center thickness tolerance | $\leq 0.05 \text{ mm}$ |
| EFL tolerance | $\leq 0.1\%$ |
| Asphere figure error P-V | $\pm 1 \mu\text{m}$ |
| Surface form deviation RMS | $\leq 0.5 \mu\text{m}$ |

Aspheric lenses with surface figure error P-V $< 0.6 \mu\text{m}$ are available on request.

| Substrate | D, mm | EFL, mm | BFL, mm | CT, mm | CA, mm | NA | Catalogue number | Price, EUR |
|-----------|-------|---------|---------|--------|--------|-------|------------------|------------|
| S-LAH64 | 12.5 | 10 | 7.6 | 4.3 | 11.3 | 0.544 | 116-1210 | 130 |
| UVFS | 12.7 | 20 | 17 | 4.4 | 11.4 | 0.275 | 117-1220 | 245 |
| UVFS | 12.7 | 25 | 22 | 3.8 | 11.4 | 0.223 | 117-1225 | 245 |
| N-BK7 | 12.5 | 25 | 22.4 | 4.0 | 11.3 | 0.227 | 115-1225 | 130 |
| UVFS | 12.7 | 15 | 11.4 | 5.3 | 11.4 | 0.356 | 117-1215 | 245 |
| UVFS | 12.7 | 30 | 27.6 | 3.5 | 11.4 | 0.187 | 117-1230 | 245 |
| UVFS | 12.7 | 40 | 36.2 | 5.5 | 11.4 | 0.144 | 117-1240 | 245 |
| S-LAH64 | 25 | 20 | 15.7 | 7.6 | 22.5 | 0.543 | 116-2520 | 170 |
| N-BK7 | 25 | 50 | 46 | 6.0 | 22.5 | 0.232 | 115-2550 | 170 |
| N-BK7 | 25 | 32 | 27.4 | 7.0 | 22.5 | 0.359 | 115-2532 | 170 |
| UVFS | 25.4 | 20 | 9.9 | 14.7 | 22.9 | 0.496 | 117-2520 | 320 |
| UVFS | 25.4 | 25 | 17.8 | 10.5 | 22.9 | 0.416 | 117-2525 | 320 |
| UVFS | 25.4 | 30 | 24.5 | 8.0 | 22.9 | 0.398 | 117-2530 | 320 |
| UVFS | 25.4 | 40 | 35.9 | 6.0 | 22.9 | 0.292 | 117-2540 | 320 |
| UVFS | 25.4 | 50 | 46.6 | 5.0 | 22.9 | 0.232 | 117-2550 | 320 |
| UVFS | 25.4 | 60 | 56.6 | 5.0 | 22.9 | 0.192 | 117-2560 | 320 |
| S-LAH64 | 50 | 40 | 31.3 | 15.5 | 45.0 | 0.554 | 116-5040 | 310 |
| N-BK7 | 50 | 100 | 93.4 | 10.0 | 45.0 | 0.237 | 115-5100 | 310 |
| UVFS | 50.8 | 50 | 37.0 | 18.9 | 45.7 | 0.416 | 117-5050 | 590 |
| UVFS | 50.8 | 60 | 49.5 | 15.2 | 45.7 | 0.356 | 117-5060 | 570 |
| UVFS | 50.8 | 75 | 66.7 | 12.1 | 45.7 | 0.292 | 117-5075 | 560 |
| UVFS | 50.8 | 100 | 93.6 | 9.4 | 45.7 | 0.223 | 117-5100 | 550 |