

Molded Aspherical Lenses

Product Information

SCHOTT manufactures aspherical lenses using the precision molding process based on a technology that was developed at SCHOTT in the early 1980's.

High performance aspherical lenses used in optical elements eliminate monochromatic aberrations (e.g. spherical aberration) and lead to a better overall image quality.

Aspherical lenses replace a multi spherical element assembly, thereby combining weight reduction and allowing more compact design.

Materials

SCHOTT is currently extending its environmentally friendly glass portfolio and has identified several glasses that are suitable for precision molding due to their low transformation temperatures. Detailed material information can be found at Technical Information TIE40 on our website under www.schott.com/advanced_optics/english/download

Quality Assurance

Our quality control is based on statistical process control, as well as on rigorous final inspection. Measuring instruments include 2d- and 3d aspheric profile measurement systems, interferometer and atomic force microscope.



Applications

Industrial Optics, such as:

- Binoculars
- Microscopy
- Sports Optics

Consumer Optics, such as:

- Digital Projection
- Digital Single Lens Reflex Cameras

Forms of Supply

- Lens diameter: 10 to 35 mm
- Lens thickness: 3 to 10 mm
- Radii/pole radii CC: 20 to 250 mm
- Radii/pole radii CX: 20 to 250 mm

Please contact us for your desired shape. Our application team is specially experienced to support you in making your aspherical lens design moldable.

Specifications

Diameter tolerance	h8
Form error	≤ 5 fringes (sph. side)*
Form error	$\leq 5 \mu\text{m PV}$ (asph. side)*
Irregularity	≤ 2 fringes (sph. side)*
Tilt	$\leq 2'$
Surface roughness	$< 3 \text{ nm rms}$

* Values strongly depend on lens geometry and glass type

For more information please contact:

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