

Precision Molded Glass Optics for Infrared



High precision components in the SWIR, MWIR and LWIR including aspheric lenses and diffractives molded from chalcogenide glass.

Technical Data

- Wavelength: 1.2 – 14 μm
- Standard spec of 2 fringes irregularity at C.A. 25 mm
- Diameter: 2.5 – 50 mm
- Broadband AR and hard coatings

FISBA Capabilities

- Customized design of a variety of precision molded IR glass optics
- Manufacturing capabilities from prototype to high volume serial production

Your Benefits

- Your choice of glass types from different suppliers
- Full service from design to manufacturing
- AS9100D / ISO 9001 certified and ITAR compliant US production facility

Industries & Applications

- Aerospace & Defense
- Machine Vision
- Life Sciences

Design Recommendations Precision Molded IR Optics

Parameters		Standard values	High standard values
Diameter Ø:	Range	approx. 3 – 50 mm	approx. 3 – 50 mm
	Tolerances for lenses Ø < 5 mm Tolerances for lenses Ø > 5 mm	± 0.015 mm ± 0.025 mm	± 0.005 mm ± 0.010 mm
Center thickness	Tolerance	± 0.030 mm	± 0.010 mm
Aspheric figure error	Lenses Ø < 40 mm	5	3
	Lenses Ø > 40 mm	7	5
Irregularity	Lenses Ø < 40 mm	2	1
	Lenses Ø > 40 mm	3	2
Tilt angle		5'	2'
Decentration		± 0.015 mm	± 0.005 mm
Surface quality (MIL)		80 – 50	60 – 40
Surface roughness		10 nm rms	10 nm rms

Customized designs available upon request