

Precision Molded Glass Optics for Infrared For imaging systems

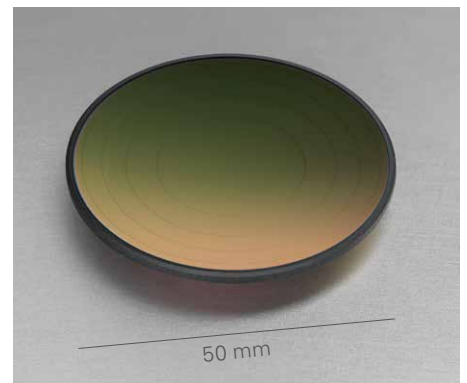
Diffraction and double sided aspheres made from chalcogenide glass.

Your Benefits

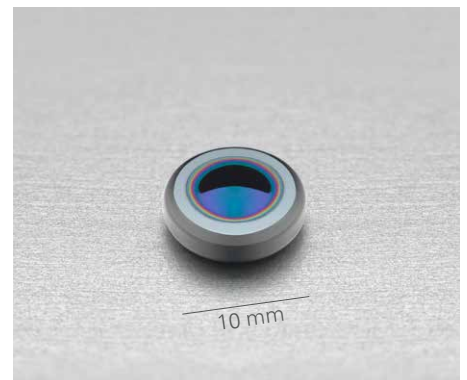
- **Full Range of Spectrum:** High precision components in the SWIR, MWIR and LWIR spectrum
- **Optical Design Support**
- **Production setup:** From prototype to volume manufacturing
- **AS AS9100D / ISO 9001 certified and ITAR compliant US production facility**
- **Full services:** Centering, truncating, coating, cementing, tactile measuring technology, metrology and assembling in-house

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
- Possible geometries:
 - Diffractive Lenses
 - Aspheres
 - Double-sided aspheres



Diffractive PML from chalcogenide glass



PML IR asphere with customized coating



Applications

- Thermal Imaging (MWIR/LWIR)
- SWIR Imaging
- Hyperspectral Imaging Optics
- Process Monitoring

Precision Molded Glass Optics for IR Design Recommendations

		Standard values	High standard values
Range		approx. 3 – 50 mm	approx. 3 – 50 mm
Diameters Ø	Tolerance for lens Ø < 5 mm	± 0.015 mm	± 0.005 mm
	Tolerance for lens Ø > 5 mm	± 0.025 mm	± 0.010 mm
Center thickness	Tolerance	± 0.04 mm	± 0.01 mm
Aspheric figure error	Lens Ø < 40 mm	5	3
	Lens Ø > 40 mm	7	5
Irregularity	Lens Ø < 40 mm	2	1
	Lens 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