

Reflective Coatings

Product

BERLINER GLAS manufactures high quality front and rear surface mirrors used in optical instrument applications.

Substrates

Clear float glass, quartz, glass ceramics and borosilicate glass can be used as substrates.

Specifications

Aluminium mirrors with protective coatings

- Reflectivity:
 - R max. \geq 90 %
 - R max. \geq 94 %
 - R max. \geq 97 %
 measured at 550 nm
- Adhesion and humidity resistance: according to MIL-M-13508 C
- Abrasion resistance: according to MIL-M-13508 C

UV-applications

- Aluminium with MgF₂-protective coating for UV-applications up to 187 nm
- Aluminium with SiO₂-protective coating for UV-applications up to 200 nm

IR-mirrors

- Gold mirrors for infrared applications over 600 nm

Highly reflective rear surface mirrors

- Silver mirrors
- Di-electric mirrors
- High efficiency mirrors for single wave length or broadband applications
- Laser mirrors with high destruction threshold

Other coatings on request:

e. g. chromium coating (including with reduced reflectivity), beam splitters, edge filters and cold light mirrors.

Software for thin film design is available.

Quality Assurance

We perform permanent process and manufacturing control with sophisticated measuring instruments.

Notes

The different alternatives for substrate profiling are described in the product data sheet „CNC- Manufactured Glass Components“. In addition we develop individual solutions. Our computer software for thin films will help you to optimize your films.

Measuring Instruments for Quality Assurance

Wavefront:	Interferometer 4-24", Shack-Hartmann-Wavefront-Sensor (UV and DUV)
Resolution:	Computer-supported MTF measurement
Centering:	Objective metrology station, Laser centering station
Angle Precision:	Goniometer, interferometer
Transmission/ Reflection:	Spectrometer, diode array
Surface defects:	Automatic microscope
Micro-Roughness:	White light interferometer, AFM
Dimension:	3D Coordinate-measurement, caliper, CCD-Micrometer, Stitching interferometer