



## Photonics for Industrial Solutions: Prisms.

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BERLINER GLAS produces prism optics to the strictest tolerances according to DIN 58158 or customized for the following applications: laser technology, metrology, reproduction engineering, medical engineering, research and others.

# Prisms.

## Specification\*:

Material	optical glass, CaF <sub>2</sub> , MgF <sub>2</sub> , quartz, glassceramics, ceramic, borosilicate glass and filter glass
Flatness	$\lambda/40$ PV, measured at 632.8 nm
Micro roughness	2 Å rms

## Prisms:

### Reflecting prisms

- ◆ Pentaprisma
- ◆ 90° prism
- ◆ Tripel prism
- ◆ Dove prism
- ◆ 45°+60° prism
- ◆ Roof prism
- ◆ Rhomboid prism

### Dispersing prism

- ◆ Equilateral dispersing prism

## Prismenbaugruppen:

### Beam splitting prism

- ◆ cemented, scattered
- ◆ Beam splitting cube

### Assemblies

- ◆ High quality cemented prism assemblies with the highest wavefront and distraction

## Quality Assurance:

In addition to permanent process and production control there is a very careful final inspection for which sophisticated measuring devices are available.

## Notes:

We manufacture monolithical optics (integration of more than one optical function in one glass component) as well as multi-functional optics (integration of mechanical functions in a glass component).

## Metrology:

Wavefront	Interferometer (4-24"), Shack-Hartmann-wavefront sensor (UV, DUV, VIS, NIR)
Form deviation	3D coordinate measuring devices, caliper, CCD micrometers, Stitching-interferometer
Angle precision	Goniometer, interferometer, auto-collimators
Transmission/reflection	Spectral photometer
Surface defects	Traveling microscopes
Micro roughness	White light interferometer, atomic force microscope
Imaging performance/resolution	Computer-supported MTF measurement, microscopic image resolution
Centering	Objective metrology system, laser centering station
Additional functional measurement	Assembly-specific metrology station
Fine correcting procedure	Ionic beam process, robotic polishing, magnetorheological process

\* The following error and tolerance data indicates possible limit values. Specified and assessed according to ISO/MIL/DIN.