JENOPTIK

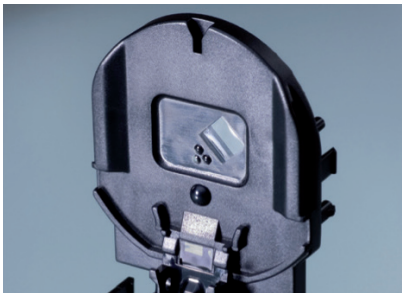
MORE LIGHT

Optical components

From concept through mass production – we are your partner.

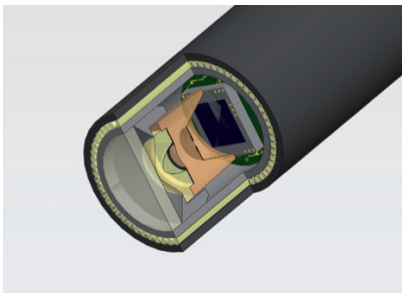
From optical design and development through prototypes and mass production molds to fully automated injection molding – we respond flexibly to meet your requirements.

Optical components



As a system supplier, we produce customer specific precision polymer optical components

- Spherical, aspherical and toric optics
- Complex 2-component optical parts
- Free-form surfaces
- Optical micro structures (micro lens arrays)
- Diffraction gratings and spherical gratings
- Fresnel and diffractive optics



Development/Design

- Optical, mechanical and system design (ZEMAX, ASAP)
- 3D construction and design with ProENGINEER
- Raytracing and stray light simulation
- Tolerance analysis
- Ultra precision technology (SPDT) for prototype production of optical components and systems

Tool design/Ultraprecision technology

Ultraprecision technology:
- Processing diameters from 0.2 mm to 350 mm
- Shape accuracy, λ/4 (with λ = 632.8 nm)
- Roughness < 5 nm (Ra)

Tool design:
- Tool construction
- Production of customer specific injection molds

Mass production of optical components

- Injection molding machines with clamping forces of 5 to 3250 Tons
- Variotherm process management
- Injection embossing (silicone injection molding)
- 2-component injection molding
- Micro Injection molding
- Fully automated separation and handling
- Integrated optical inspection during production

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