

Diffraction Optical Elements (DOEs) made of Glass

Product information

DOEs are used for beam shaping and collimation of lasers and LEDs. Moreover DOEs can be used as Fresnel Zone Lenses.

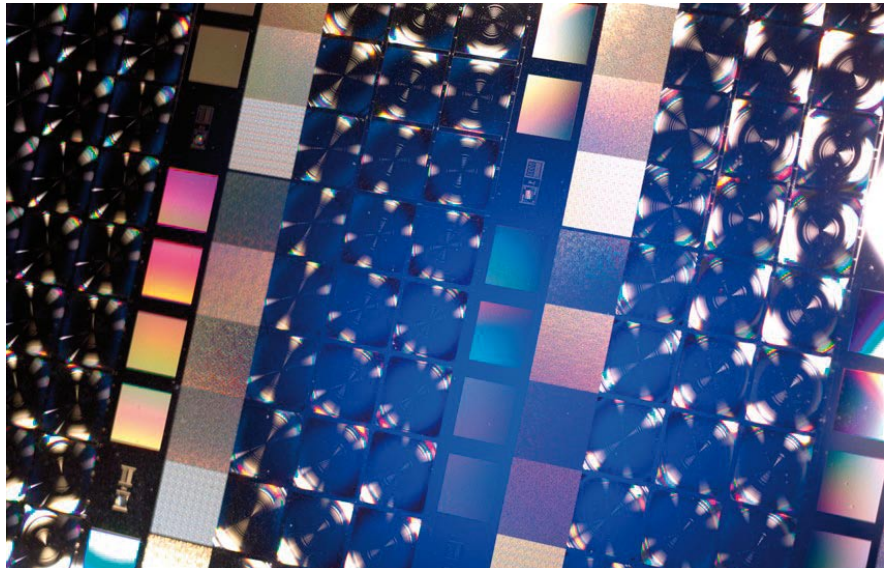
Applications

DOEs, such as Computer Generated Holograms (CGH), Blazed Gratings or Fresnel Zone Lenses for:

- Laser optics
- Optical sensors
- Lighting applications

Advantages

- Significant better mechanical, thermal and chemical durability as polymer DOEs
- Variety of high homogeneous optical glasses (nd: 1.52 – 1.9) available
- Size and weight reduction of optics
- Several optical functions can be combined in a single element (component)
- Realisation of new optical functions is possible
- Excellent correction of chromatic aberrations
- Large scale production by unique precise pressing technology from SCHOTT
- Supplied as individual DOE or as an array of DOEs
- Customized coatings possible



Specifications

	Phase levels	
	2	16
Period size	> 1 μm	> 8 μm
Efficiency	up to 40 %	up to 95 %
Depth	< 10 μm	< 10 μm
Aspect Ratio	< 1:1	< 1:1
Side slope	< 80°	< 80°

Quality Assurance

Our quality control is based on statistical process control, as well as on rigorous final inspection. Measuring instruments include a 2D profile measuring system, an interferometer and an atomic force microscope.

For more information please contact:

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