

# Diffractive 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.

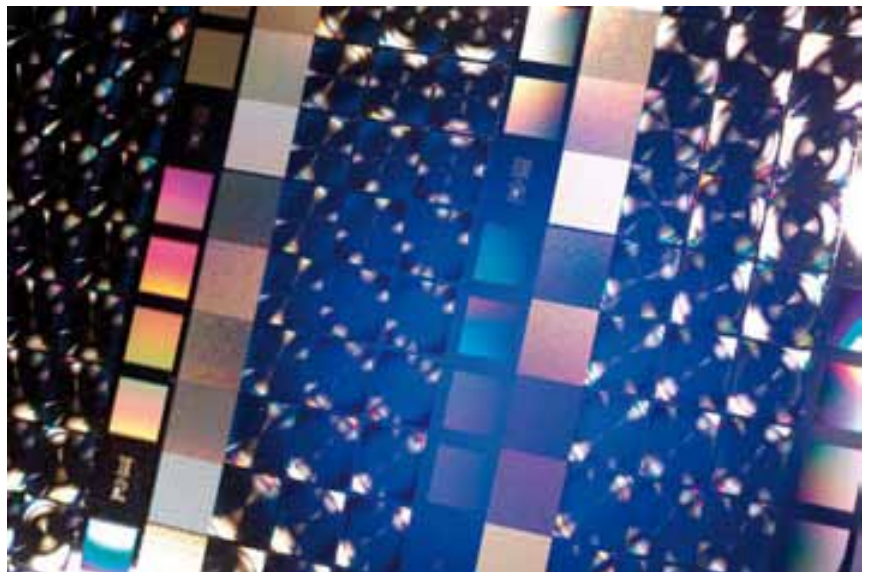
## Applications

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 $\mu\text{m}$	> 8 $\mu\text{m}$
Efficiency	up to 40%	up to 95%
Depth	< 10 $\mu\text{m}$	< 10 $\mu\text{m}$
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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glass made of ideas