



## Product Information

# Precision Optics with Freeform Surface

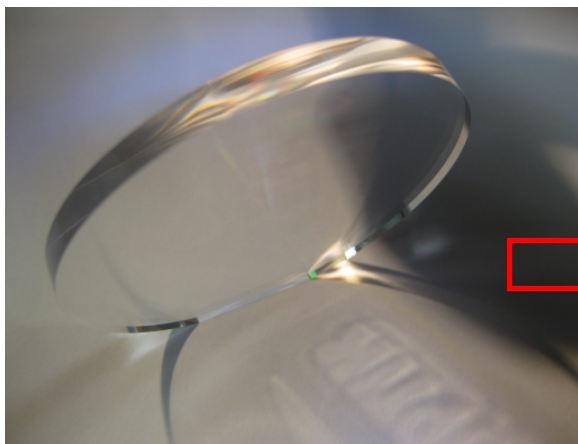
The Jenoptik business unit Optoelectronic Systems presents its latest technology, non rotationally symmetric optical surfaces.

The lens is designed to bundle and form parallel light for projection of, for example, a logo on the image plane. The advantages of freeform surfaces include miniaturization, energy efficiency and reducing the number of optical surfaces in a system with similar output.

The use for polymer freeform surfaces has increased over recent years in markets such as automotive and general mobility, lighting, energy, medical and sensor technologies. Specific applications include Heads-Up Displays (HUDs), and Head Mounted Displays (HMDs), and for beam shaping of light for complex light and luminance distribution.

In partnership with the Fraunhofer Institute, Jenoptik can provide the complex optical design to the customer's specific requirements and specifications. Using slow tool servo technology on an ultra precision diamond turning machine, high precise freeform geometries are realized.

The business unit Optoelectronic Systems works closely with the Fraunhofer Institute to develop and support the manufacture of these unique freeform optics, from design through system integration and high volume production.



*(Freeform lens)*



*(Functionality)*