

Optical Glass Rods for Miniaturized Ball Lenses, Discs & More!

SCHOTT offers the widest range of rods with different geometries, formats & materials

Product Information

Optical glass rods from SCHOTT for applications using small optical components such as ball lenses, rod lenses, aspheres and discs are produced by applying different unique processes.

Materials

- Various Low Tg glasses from SCHOTT such as P-LASF47, P-SK57, N-FK51A
- Other glass types such as high refractive index glass LASF35 ($n_d = 2.02204$, $vd = 29.06$), optical and colored glass as well as special glass upon request



Rods for miniaturized optical components in different shapes, geometries, qualities & materials

Applications

- Preform for ball lenses, discs or rod lenses
- High potential as preform for miniaturized optical parts such as high quality asphere pressings, lens caps for opto electronic coupler in fibers, parts for endoscope and microscope and optical components for mobile phones, digital cameras, pico beamers, telecommunication, or for LED applications

Supply Forms

Rods are available in different:

- Lengths: up to 1000 mm
- Diameters: < 1 – 12.5 mm
- Surface qualities: matt, firepolished
- Shapes: development initiative for new customized shapes, e.g. squares, prisms, tubes, etc.

Advantages

- SCHOTT now offers the widest range of rods in terms of diameter, length, surface quality, and material
- SCHOTT's different process capabilities allow the fulfillment of custom specifications for different materials such as optical properties, possible shapes and geometries
- New offered rod lengths in addition to standard measures enable improvement of successive processes → **higher yield possible through more lenses out of one rod**
- Smaller diameter of rods lead to a better proximity to near net shape of succeeding product form → **less material use**
- Supply of different materials and surface qualities enlarge options of possible applications
- By offering this new supply form SCHOTT underlines its responsibility in terms of resource saving production processes & environment protection → **eco-saving**
- Patented & unique production process

Specifications*

| Description | Fire polished surface | | Matt surface | |
|------------------------|---------------------------|---------------------------|-----------------------|-----------------------|
| | Standard Quality | Premium Quality | Standard Quality | Premium Quality |
| Diameter/Tolerance | ± 5 % of nominal diameter | ± 3 % of nominal diameter | ± 0.1 mm | ± 0.05 mm |
| Straightness deviation | max. 0.1 mm / 100 mm | max. 0.1 mm / 100 mm | max. 0.05 mm / 100 mm | max. 0.03 mm / 100 mm |
| Length tolerance | + 5 mm | + 2 mm | + 5 mm | + 2 mm |
| Diameter range | < 1.0 – 7.0 mm | < 1.0 – 7.0 mm | 2.0 – 12.5 mm | 2.0 – 12.5 mm |
| Surface quality | fire polished | fire polished | matt | matt |
| Length | up to 1000 mm | | up to 150 mm | |

*Reference to round shape and glass type P-LASF47



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