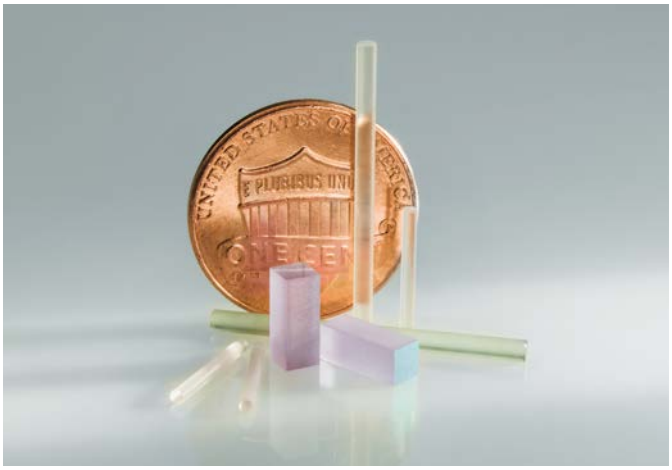
Ultraprecise and Long-Lasting Laser Glass Components

Product Information

SCHOTT specializes in the manufacture of ultraprecise active laser components made of SCHOTT laser glasses. SCHOTT has mastered the entire processing chain including cutting, grinding, polishing and coating to produce high quality finished components.

Lowest transmitted wave front distortion (TWD) is achieved by using various technologies for local surface correction while suppressing mid-spatial frequencies.

SCHOTT has utilized its extensive knowledge of glass properties and processing to develop new coatings with high Laser Induced Damage Threshold (LIDT).



Typical Values for Laser Components

Big Rods	
Sizes	up to Ø 50 x 450 mm³
typical	Ø 25 x 250 mm³
Parallelism	< 30 arcsec
Surface roughness RMS	down to 0.4 nm
TWD	down to λ/20
AR reflectivity (1053 nm)	< 0.2 %
LIDT (AR, 1064 nm, 10 ns)	> 30 J/cm²
Coating max. length	250 mm
Angular inclination end faces possible	

Small Rods	
Sizes typical	Ø 2 x 20 mm³
or	2 x 3 x 10 mm³
Parallelism	< 30 arcsec
Perpendicularity	< 5 arcmin
TWD	< λ/20
AR reflectivity (940, 1532 nm)	< 0.2 %
LIDT (AR, 1550 nm, 10 ns)	> 30 J/cm²
Precise chamfers possible (e. g. 80 ± 20 µm)	

For all items:
Other dimensions, wavelengths, and tighter tolerances available on request.

Slabs	
Sizes	up to 600 x 425 x 45 mm³
typical	300 x 400 x 10 mm³
Parallelism	< 5 arcsec
Surface roughness RMS	down to 0.4 nm
TWD	down to λ/10
Coating max. diameter	350 mm
LIDT (AR, 1064 nm, 10 ns)	> 30 J/cm²
Complex chamfer design available	

Advanced Optics
SCHOTT AG
Hattenbergstrasse 10
55122 Mainz
Germany
Phone +49 (0)6131/66-1812
Fax +49 (0)3641/2888-9047
info.optics@schott.com

www.schott.com/advanced_optics

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