

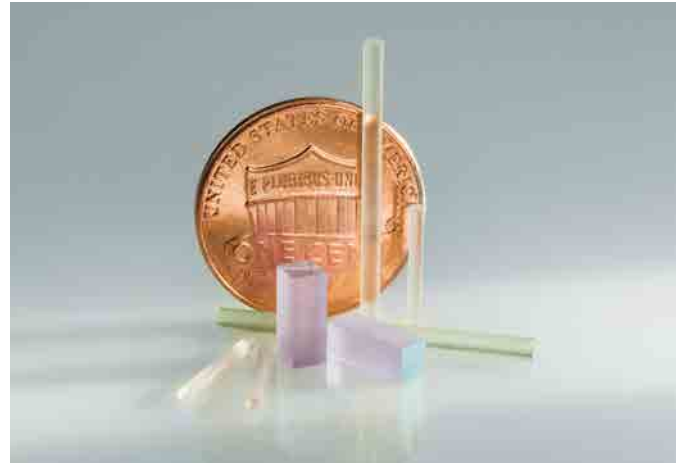
Ultraprecise and Long-Lasting Laser Glass Components

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 $\varnothing 50 \times 450 \text{ mm}^3$
typical	$\varnothing 25 \times 250 \text{ mm}^3$
Parallelism	$< 30 \text{ arcsec}$
Surface roughness RMS	down to 0.4 nm
TWD	down to $\lambda/20$
AR reflectivity (1053 nm)	$< 0.2 \%$
LIDT (AR, 1064 nm, 10 ns)	$> 30 \text{ J/cm}^2$
Coating max. length	250 mm
Angular inclination end faces possible	

Slabs	
Sizes	up to $600 \times 425 \times 45 \text{ mm}^3$
typical	$300 \times 400 \times 10 \text{ mm}^3$
Parallelism	$< 5 \text{ arcsec}$
Surface roughness RMS	down to 0.4 nm
TWD	down to $\lambda/10$
Coating max. diameter	350 mm
LIDT (AR, 1064 nm, 10 ns)	$> 30 \text{ J/cm}^2$
Complex chamfer design available	

Small Rods	
Sizes typical	$\varnothing 2 \times 20 \text{ mm}^3$
or	$2 \times 3 \times 10 \text{ mm}^3$
Parallelism	$< 30 \text{ arcsec}$
Perpendicularity	$< 5 \text{ arcmin}$
TWD	$< \lambda/20$
AR reflectivity (940, 1532 nm)	$< 0.2 \%$
LIDT (AR, 1550 nm, 10 ns)	$> 30 \text{ J/cm}^2$
Precise chamfers possible (e. g. $80 \pm 20 \mu\text{m}$)	

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

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SCHOTT
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