

# Windows & Substrates

## Product Information

- Windows are used for highly efficient, distortion free light and image transmission. Substrates are used as coated mirrors, filters and in metrology.

## Advantages

- SCHOTT masters the entire value chain from raw glass to coated windows
- Custom designed products at competitive prices
- From 1 piece to series production levels
- Coating: all substrates coated to a specific custom design
- Sub-Assembly: We offer our expertise in gluing and cementing to integrate the windows in custom designed hardware

## Material

- Optical glasses
- Technical glasses
- Filter glasses
- Fused silica
- ZERODUR® extremely low expansion glass ceramic
- Sapphire and other crystal

## Example of Products

- Plane parallel windows
- Protective windows
- Antireflection coated laser line windows
- Optical flats
- Substrates for microlithography
- Brewster windows or elliptical windows



## Manufacturing Capabilities

	Commercial Quality	Precision Quality	Ultra Precision Quality
Diameter	From 2 mm to 625 mm		
Diameter Tolerance	± 0.25 mm	± 0.050 mm	± 0.005 mm
Thickness Tolerance	± 0.20 mm	± 0.040 mm	± 0.020 mm
Parallelism	< 3 arc minutes	< 1 arc minutes	< 10 arc seconds
Surface Accuracy	2λ	λ/4	λ/20*
Surface Quality (Scratch & Dig)	80/50	60/40	10/5
Surface Roughness	5 nm	2 nm	5Å rms
AR Coating	Ravg < 1.5%	Ravg < 0.5%	Custom Designed
Order Quantity**	From 1 piece to series production		
Delivery Time**	4 – 6 weeks	4 – 6 weeks	4 – 10 weeks

\* Depending on geometry

\*\* Depending on customers specification. Please call sales representative!



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