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SCHOTT
glass made of ideas

Processing options for special glass

SCHOTT Technical Glass
Solutions GmbH



Processing options for special glass SCHOTT Technical Glass Solutions GmbH

Whether as cover glass for mobile devices, inspection glass in modern industrial facilities or carrier material in the semiconductor industry – the versatility and flexibility of special glass from SCHOTT Technical Glass Solutions is unrivaled. A wide range of processing and finishing options allow customer-specific adaptations for numerous applications. The special glass can be further processed within standard dimensions in accordance with customer requirements, from single part to series production. In addition to simple cut to size parts, this can include edge finishing, drilling, higher breaking strength, laminated glass production and other post-processing options.

CNC shape cutting

Production of simple and complex contours using different cutting methods.

In general, the cut edge is broken smooth. Shapes requiring higher precision and complex geometries are possible with water jet cut edges.



Scoring the glass with cutting wheel



Breaking the glass at defined edge



Waterjet cutting



Cut edges



Waterjet-cut edges



Laser-cut edges

Thickness (mm)	Size min (mm)	Size max (mm)	Tolerances
0,4 – 25,4	10 x 10	1.200 x 1.200	+/- 0.3 to +/- 5mm (higher tolerances for greater thicknesses);
1,1 – 21,0	50 x 50	2.200 x 4.200	greater thicknesses on request

Special shapes according to customer-specific drawings are possible.
Please contact us for further information on formats, dimensions and tolerances.

CNC-edge processing

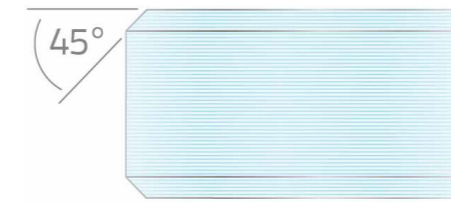
The improvement of edge quality through selected processing methods and the use of special tools also enables a better integration of the components from different applications and increases glass strength.



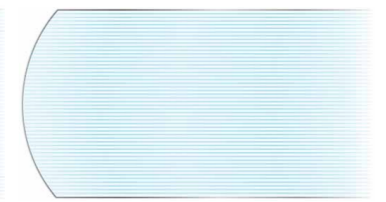
The edges can be cut, ground and polished.



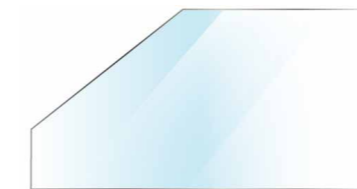
Cut edge



Ground edge, arrised



C-ground



Miter edge, polished



Polished edge, arrised



C-polished

Thickness (mm)	Size min (mm)	Size max (mm)	Tolerances
0,3 – 5	30 x 30	380 x 580	± 0,05 – ± 0,10 mm
2 – 25,4	180 x 180	1.690 x 3.210	± 0,50 – ± 0,75 mm

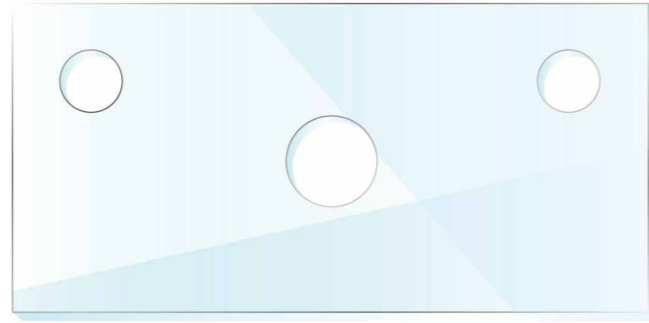
Further sizes upon request
Please contact us for further information on formats, dimensions and tolerances.

Drilling

Splinter-free insertion of various shapes and holes in glass surface by means of waterjet processing, milling and drilling.



Drilling on both sides with a horizontal drilling machine



Top view of drill holes

Thickness (mm)	Size min (mm)	Size max (mm)	Tolerances
0,3 – 5	30 x 30	380 x 580	± 0,05 – ± 0,1 mm
3,0 – 25,4	100 x 100	1.690 x 3.200	± 0,50 – ± 1,0 mm

Chemical & thermal toughening

Significant increase in breaking strength of processed glass through thermal and chemical toughening.



Thermal toughening



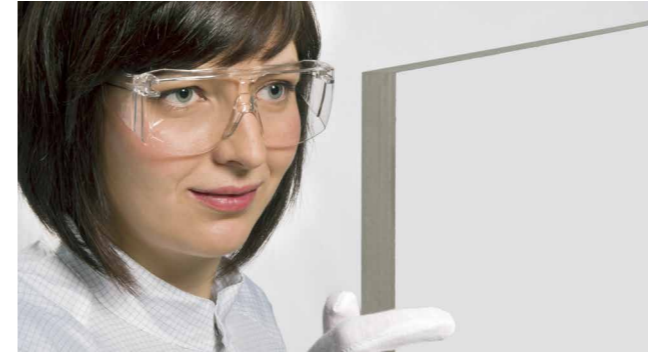
Chemical toughening

Type of toughening	Size (mm)	Thickness (mm)	
Thermal	min 150 x 230	3,3 – 15	Semi-toughened glass
	max 1.680 x 3.150	6,0 – 12	Thermally toughened safety glass
Chemical	min 10 x 10	0,5 – 16	
	max 1.000 x 2.000		

Suitable for certain types of glass! Please contact us.

Laminated glass production

Manufacture of glass laminates consisting of at least two glass panes and bonded together by an adhesive interlayer to guarantee special safety requirements.



Glass laminate consisting of several panes of special glass



Laminate production

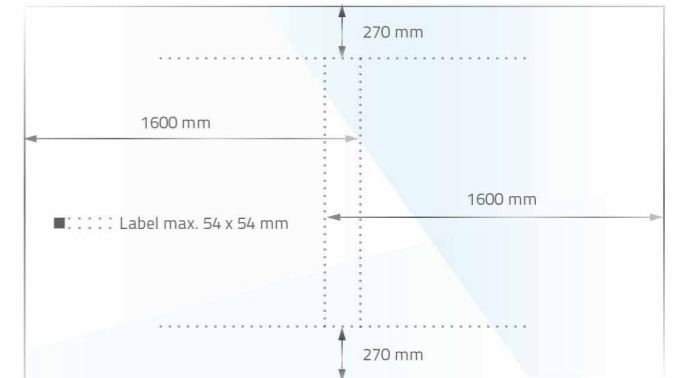
Laminate type	Size min (mm)	Size max (mm)	Thickness
Foil laminate	200 x 300	1.600 x 3.300	No restriction

Laser marking

Glass panes can be marked individually by laser.



Laser marking



Label

Thickness (mm)	Size min (mm)	Size max (mm)	Max. lable size (mm)
3 – 20	200 x 200	1.800 x 3.000	54 x 54

Further data and information available upon request.