

Technical Specification

Stock glass is held in sizes ranging from 2mm to 19mm thick. Covering Float, Patterned, Low Iron, Laminated, Tinted, Mirror Glass & Painted Glass. Standard sheet sizes are:

3210 x 2550
 3210 x 2250

EDGEWORK

Arrissed – Sharp edges removed
 Ground- Smooth with matt finish
 Polished – Bright finish or CNC finish
 Mitred Edge

CORNERS

Corners are dubbed as standard on toughened product. Radius corners are available on request.

HOLES

Hole sizes from 6mm upwards can be drilled. Larger holes can be machined and internally polished if required. Counter-Sunk holes are available if required.

DIAMETER TOLERANCES

Holes sizes from 6mm diameter (+0mm - 1mm)

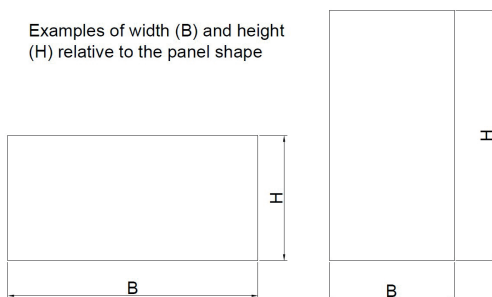
Tolerance on hole, centre positions being +/- 1mm to +/- 3mm depending on thickness.

TOLERANCE ON SIZE

Nominal dimension of side B or H	Tolerance t	
	Nominal glass thickness $d \leq 8$	Nominal glass thickness $d \geq 8$
≥ 2000	± 2.0	± 3.0
$2000 < B.H \leq 3000$	± 3.0	± 4.0
> 3000	± 4.0	± 5.0

Dimensions in millimetres

Examples of width (B) and height (H) relative to the panel shape



TOLERANCE ON SQUARENESS

Square is measured by comparison of diagonals. Refer to table below.

Panels up to 2000mm	4mm
Panels over 2000mm	5mm

TOUGHENED GLASS

Thermally toughened Soda Lime Silicate safety glass is glass which a permanent surface compressive stress has been introduced by a controlled heating and cooling process. Minimum size is 250mm x 150 mm wide. Maximum size being 3210mm x 2000mm. Each piece of Toughened glass will be permanently marked with company name, EN number and Classification.

Toughened glass must not be re-worked after toughening.

ROLLER WAVE

Occurs in horizontally toughened glass due to glass contact with the rollers. Limits are given below.

Glass Thickness	5mm	6mm , 8mm , 10mm	12mm,15mm,19mm
Max Roller wave mm.	0.5 mm	0.3mm	0.15mm

OPTICAL APPEARANCE

Obtrusiveness of blemishes are determined by looking through the glass when viewed at right angles and at a distance of 3.0m. Assessment is by method in appropriate parts of the BSEN 572.

VISUAL QUALITY

Flat transparent glass, including laminated or toughened glass shall be deemed acceptable if the following phenomena are neither obtrusive nor bunched: totally enclosed seeds, bubbles or blisters; hairlines or blobs; fine scratches not more than 25mm long; minute embedded particles.

Obtrusiveness of blemishes shall be judged by looking through the glass, not at it, in natural daylight and not direct sunlight. This should be from a distance of 3 metres at a right angle to the panel.

SANDBLASTING

Maximum panel size for Sandblasting is 3000mm x 2000mm. Artwork is required in either DXF or DWG formats.

BACK PAINTED

On back painted glass the colour may vary, and it is advised that a colour sample be approved prior to ordering. The use of Low Iron glass is recommended for back painted glass as standard clear glass can distort the final colour.

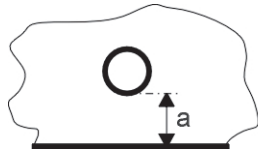
CNC / DRAWINGS & TEMPLATES

Brownhills Glass Ltd is fully equipped with AutoCAD, we can use customer supplied drawings, DXF or DWG format, Templates or sketches to enable us to create drawings for processing.

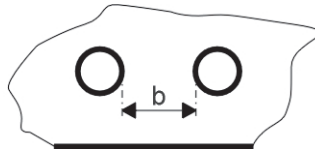
All drawings and templates must accurately show glass size, hole or notch positions, edgework required, quantities and material.

HOLE CRITERIA IN TOUGHENED GLASS

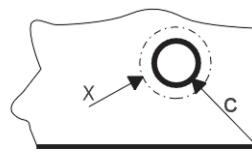
(where d = glass panel thickness)



$a = \text{to or } > 2d$



$b = \text{to or } > 2d$



$c = \text{to or } > 4d$

Note – Holes in glass to be toughened are not to be less than ' d ' in diameter.

DELIVERY & TRANSPORT

Where possible deliveries will be made packed loose on a Brownhills vehicle or on a wooden A-frame for forklift unload only.

Where vehicle restrictions apply and/or times or where special packing requirements are required please state at quotation stage to ensure correct pricing.

Any requests for changes to delivery requirements may incur additional charges.

HANDLING AND STORAGE OF GLASS

When handling the glass ensure that precautions are taken to handle safely, use suitable gloves and protective equipment as required. Care must be taken to ensure the glass is not impacted by any objects whilst being varied, particularly on the edges which are most vulnerable.

Special care must be taken to protect the glass from impact damage and the glass should be stacked on the edges and on strips of wood or other suitable materials which is relatively soft. Spacers should be applied to the surface of the glass to prevent glass to glass contact.

Glass should be stored in dry conditions to avoid water staining before fixing. When fixed or stored the glass must be protected from site contamination.

MAINTENANCE

When installed the glass should be cleaned regularly with Brownhills Glass Cleaner as per the directions on the container.

Sharp or abrasive products should not be used to clean the glass.

The use of oil-based cleaners or applications must be avoided.

FREE ISSUE WORK

Where Brownhills Glass offer free issue toughening or laminating this is at the customers own risk.

Specifically, where laminating customers own glass this process is chargeable at the agreed rates regardless of the outcome.

Brownhills Glass reserve the right to refuse to process free issue glass if we deem unsuitable, i.e unfinished edges which are at risk of breakage during toughening or laminating.

RE-ORDERS

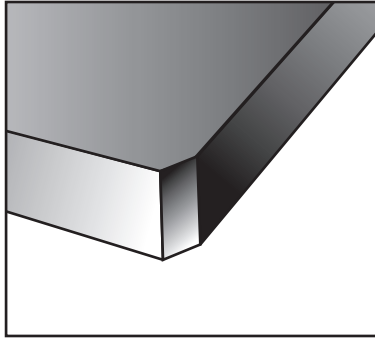
In the case of re-ordering glass either additional panel or remakes, batch specific deviations in glass or paint colour can occur.

Brownhills Glass will endeavour to use the same glass and paint supplier however this is not always available or a guarantee. Complaints cannot be accepted in such cases.

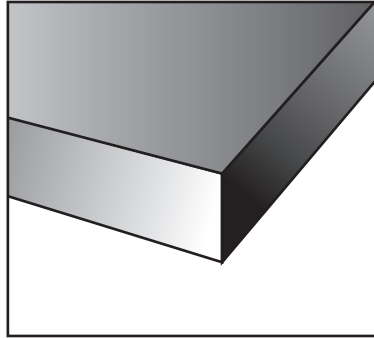
CORNERS AND FINISHING

Corners are dubbed as standard on toughened products. Radius corners are available on request. Please specify which finishing process is required when orders are placed.

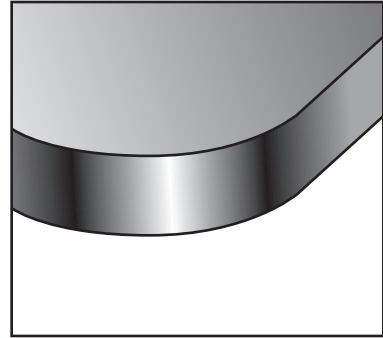
Dubbed Corners



Sharp Corners



Radius Corners



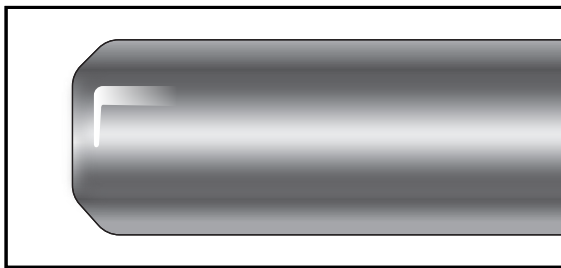
EDGEWORK

Arrissed - Sharp edges removed

Ground - Smooth with matt finish

Polished - Bright finish or CNC finish Mitred Edge

CNC Polished Edge Glass



Standard Polished Edge Glass

