

Glass Areas, Spacers & Weight

What is the maximum area of Grade A safety glass for framed glass doors, side panels and other glazed panels?

Type of Glass	Standard nominal thickness (mm)	Maximum Area (m ²)	Maximum Area in an IGU (m ²)
Toughened Safety Glass	4mm	2.2	3.3
	5mm	3.0	4.5
	6mm	4.0	6.0
	8mm	6.0	9.0
	10mm	8.0	12.0
	12mm	10.0	15.0
Laminated Safety Glass	6.38mm	3.0	4.5
	8.38mm	5.0	7.5
	10.38mm	7.0	10.5
	12.38mm	9.0	13.5

How do you calculate the minimum thickness of a spacer in an IGU?

As a general rule, take the smallest length ÷ 150 = spacer width (rounded to the nearest whole number)

Example: An IGU at 2000mm x 1850mm = 1850/150 = 12.33 so recommendation = 12mm minimum

How do you calculate the weight of glass?

2.5 x thickness of glass x total square metres = panel weight in kilograms.

Example Single Glaze: 2000mm x 3000mm in 12mm glass = (2.0m x 3.0m) x 12mm x 2.5 kgs = 180kgs

Example DGU: 2000mm x 3000mm in 6/12/6 make up = (2.0m x 3.0m) x 12mm (6mm + 6mm) x 2.5 kgs = 180kgs

Toughening Limits by glass thickness

This will vary from furnace manufacturer to furnace model. But for the equipment we have in place the following is a good guide. Minimum size 350mm across diagonal. Maximum aspect ratio 15:1 – eg for 1500mm in length, equates to minimum width of 100mm:

Standard nominal thickness (mm)	Size Guide Square	Size Guide Rectangle
4mm Toughened	1200 x 1200	2400 x 1200
5mm Toughened	2000 x 1700	3000 x 1200
6mm Toughened	2600 x 2400	3000 x 1800, 4200 x 1400

Enquiry for further detail specification for limits on holes, cut-outs and notches.

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