



**Camden** Safety - Toughened



**CAMDEN  
GLASS**

## Camden Safety - Toughened

### Performance

Thickness (mm)	Maximum dimensions (mm)		Minimum dimensions (mm)		Maximum weight (kg)
	Length	Width	Length	Width	
4	2400	1200	350	100	29
5	4200	2000	350	100	105
6	4200	2000	350	100	126
8	4200	2000	350	100	168

#### Maximum values for overall and local bow

Glass Type	Maximum overall bow (mm/mm)	Maximum local bow (mm/300mm)
Float to BS EN 572-2	0.003	0.5
Others	0.004	0.5

### Flatness

Toughened glass complies with the requirements of maximum values for overall and local bow in accordance with BS EN 12150-1:2000 as summarised in Table 2.

### Edge Work & Drilling

Arrised edge is the simplest type of edgework. A polished edge can be specified for exposed edges e.g. furniture.

Toughened glass can be supplied with drilled holes. The diameter of the holes should not exceed the thickness of the glass toughened. The distance of the edge of a hole to the corner of the glass should not be less than six times the glass thickness.

### Heat Soaking

Toughened glass is available in heat soaked form for applications where a reduction in breakage risk is advantageous. e.g. barrier applications and roof glazing.

### Identification

Toughened glass only complies with BS6206:1981 if it is marked as doing so. The mark should identify the British Standard and classification achieved.

Toughened glass is up to five times stronger than ordinary glass of the same thickness. This allows architects and builders greater scope in their use of glass in buildings. Toughened glass meets worldwide safety standards for glass subjected to accidental human impact at the highest level.

### Applications

Toughened glass is suitable for various types of applications both domestic and commercial. Uses include doors, shop windows, commercial entrances, interior furniture (table top and shelving), street furniture (bus shelters, telephone boxes and signs), overhead glazing and spandrel panels.

### Advantages

- Up to 5 times stronger than annealed glass
- Up to class A impact performance to BS 6206
- Conforms to European and international standards
- Recognised worldwide as a safety glass
- Available in heat soaked form for areas such as overhead glazing and barriers
- Will eliminate the risk of thermal fracture due to excessive solar radiation absorption
- If broken, it breaks into relatively harmless pieces reducing the risk of serious injury

### Description

Toughened glass is subjected to a heating and cooling process, whereby high compressive stresses are set up at the surfaces with balancing tensile stresses in the centre. The compressive surface stresses gives toughened glass its increased resistance to mechanical strength and thermal stress.

The appearance of Toughened depends on the type of glass selected. Under particular lighting conditions and viewing angles the stress pattern induced by the heat treatment can sometimes be seen. This strain pattern is usually noticed in slightly polarised light and is an inherent characteristic of the toughening process. Some slight distortion (bow and roller wave) can occur in such heat-treated glass due to the directional nature of the process. This will be accentuated in the more reflective types of glass when viewed from the outside of a building.



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