



# Safety for Glazed Walls, Doors, Side Panels, Windows and Screens

## 1 CRITICAL SAFETY AREAS

The areas of internal and external walls which are considered 'critical locations' in terms of safety are:

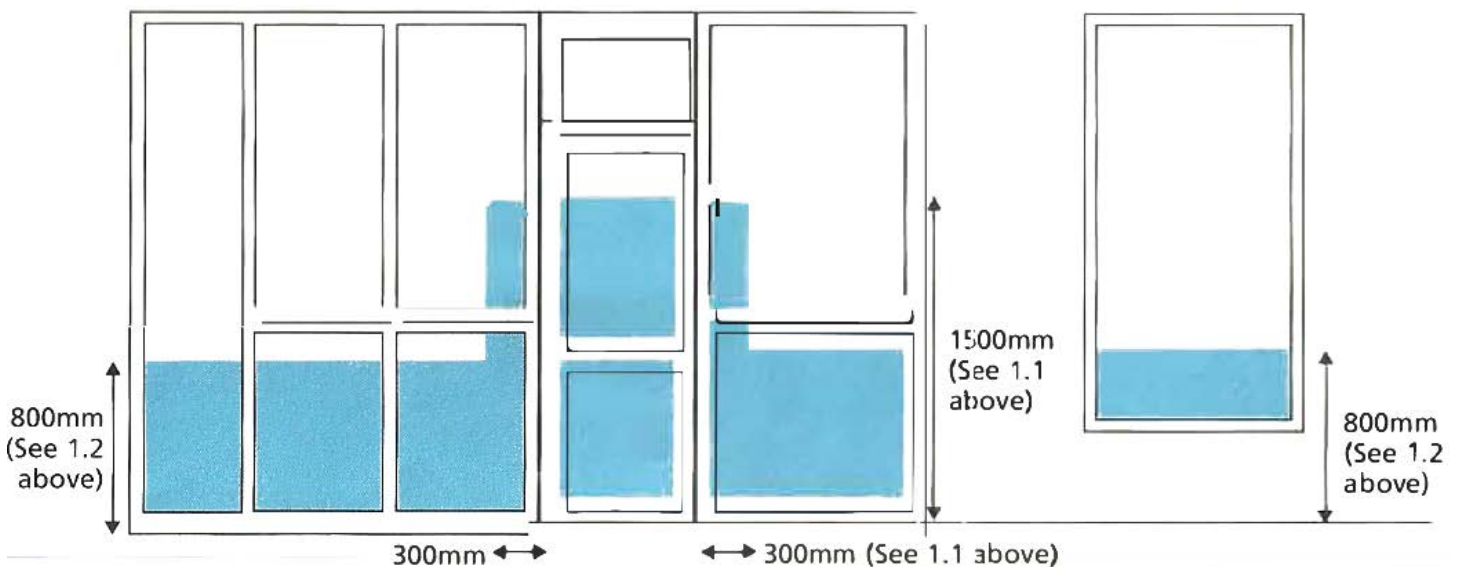
1.1 Between the finished floor level and 1500mm above that level in doors, and in side panels which are within 300mm of either edge of the door.

1.2 Between the finished floor level and 800mm above that level in the case of walls, partitions and windows.

1.3 Mirrored doors and panels.

*It is important to note that any part of a glass area affected must meet the requirements in its entirety and not just in the relevant section.*

### 1. CRITICAL LOCATIONS IN INTERNAL AND EXTERNAL WALLS, DOORS, SIDE PANELS AND WINDOWS



**SAFETY GLAZING MATERIAL** Doors and side panels over 900mm wide, not less than BS 6206 Class B. Doors and side panels up to 900mm wide, not less than BS 6206 Class C. Low level glazing mostly BS 6206 Class C.

**NOT LESS THAN 6mm ANNEALED GLASS** Note: Areas of annealed glass less than 0.5m<sup>2</sup> and not greater than 250mm in width must not be less than 6mm in thickness, except in the case of traditional leaded lights and copper lights.

*Safety for Glazed Walls, Doors, Side Panels, Windows & Screens (continued)*

## 2 REQUIREMENTS OF BS 6262 PART 4

*There are four recommended solutions to the problem of glazing 'critical locations' to meet the new requirements:*

### 2.1 Safe Breakage

For doors and door side panels, the glazing used should not break, or should break safely in accordance with Class C of the standard impact test BS 6206 (1981) if 900mm wide or less, or Class B if wider than 900mm.

For other low level glazing the pane should comply with at least BS 6206 Class C.

Use laminated or toughened glass, or plastics glazing sheet, or wired glass, that meet BS 6206, or glass with plastic film applied so the pane of glass with film meets BS 6206.

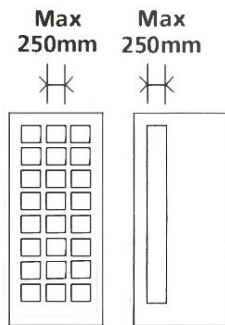
For unbacked mirror glazing accessible to impact from one side only, the pane should comply with BS 6206 Class CO if equal to or less than 900mm wide or Class BO if wider than 900mm.

Unbacked glazing either has no backing behind its entire area, or has a backing which does not retain its integrity or is cracked or broken when tested as described in BS 7449 (1991): Appendix A.

If the mirror glazing is fully backed by a solid material, like a wall or timber wardrobe door and it is securely fixed so that there is space of no more than 25mm between the mirror and the backing material, then a glass which does not comply with BS 6206 may be used.

### 2.2 Small Panes

Ordinary annealed glass may be used in small panes up to a maximum width of 250mm and an area not exceeding 0.5m<sup>2</sup>. Such glass must not be less than 6mm in thickness, except in the case of traditional leaded lights and copper lights, where 4mm can be used.



### 2.3 Robustness

Robustness refers to the strength of the glazing forming fronts to non-domestic buildings such as shops, showrooms, offices, factories and public buildings.

Nominal Thickness (mm)	Max Pane Size Dimensions (mm)
8	1100x1100
10	2250x2250
12	BS 6262 Pt 4 4500 X 4500 Document N 1992 3000 X 4500
15 or Thicker	No Limits

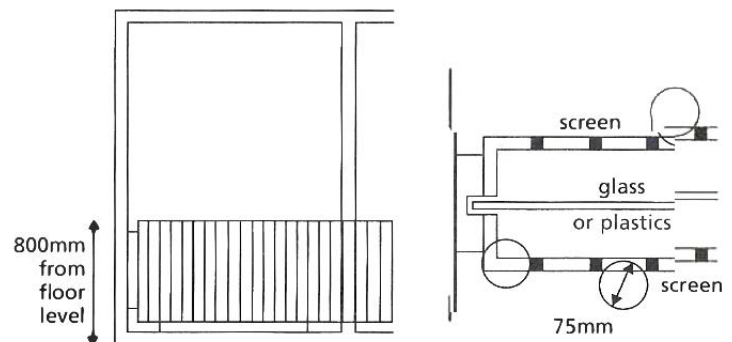
Some glazing, such as polycarbonate, is inherently strong. Annealed glass, that does not normally comply with BS 6206, can gain robustness with increased thickness. Annealed glass may only be used in critical locations, therefore, when the nominal thickness and dimensions are as listed in the table below.

### 2.4 Permanent Screen Protection

If the glazing is installed behind a permanent robust screen, it need not itself comply with any other safety requirements provided that the protecting screen:

- (a) would prevent a sphere of 75mm diameter from coming into contact with the glazing,
- (b) is sufficiently robust to sustain at least a centrally applied force of 1100 Newtons. If the protective system is multi-railed, each rail must satisfy this recommendation.

#### 2.4 PERMANENT SCREEN PROTECTION



*The above diagrams are produced by BSI.*