Section 1: Protection against impact

Critical locations

1.1 The following locations may be considered 'critical' in terms of safety;

a. between finished floor level and 800mm above that level in internal and external walls and partitions (see Diagram 1);

b. between finished floor level and 1500mm above that level in a door or in a side panel, close to either edge of the door (see Diagram 1).

Reducing the risks

1.2 Glazing in critical locations should either,

a. break safely, if it breaks (see paragraph 1.3); or

b. be robust or in small panes (see paragraphs 1.4, 1.5 and 1.6 and Diagrams 2 and 3); or

c. be permanently protected (see paragraphs 1.7 and 1.8 and Diagram 4).

Safe breakage

1.3 Safe breakage is defined in BS 6206:1981 Specification for impact performance requirements for flat safety glass and safety plastics for use in buildings: clause 5.3, and is based on an impact test which requires the result of the impact to be limited to creating:

a. a small clear opening only, with a limit to the size of the detached particles; or

b. disintegration, with small detached particles; or

c. breakage resulting in separate pieces that are not sharp or pointed.

In terms of safe breakage, a glazing material suitable for installation in a critical location would satisfy the requirements of Class C of BS 6206 or, if it is installed in a door or in a door side panel and has a pane width exceeding 900mm, the requirements of Class B of the same standard.

Robustness

1.4 Some glazing materials, such as annealed glass, gain strength through thickness; others such as polycarbonates or glass blocks are inherently strong. Some annealed glass is considered suitable for use in large areas forming fronts to shops, showrooms, offices, factories and public buildings. Reasonable glass thickness/dimension limits for annealed glass which may be used in these locations are shown in Diagram 2 (see also paragraph 2.1).

Diagram 2 **Annealed glass thickness/ dimension limits**

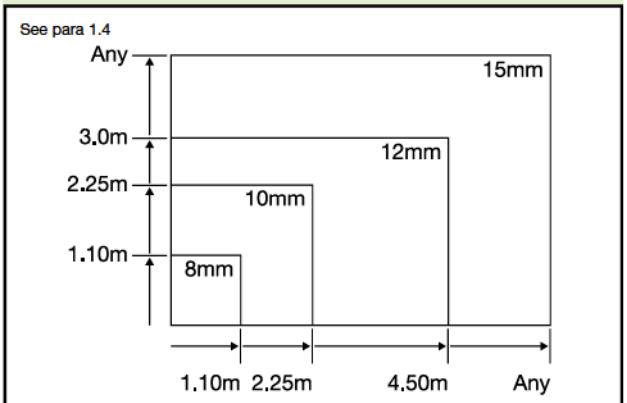
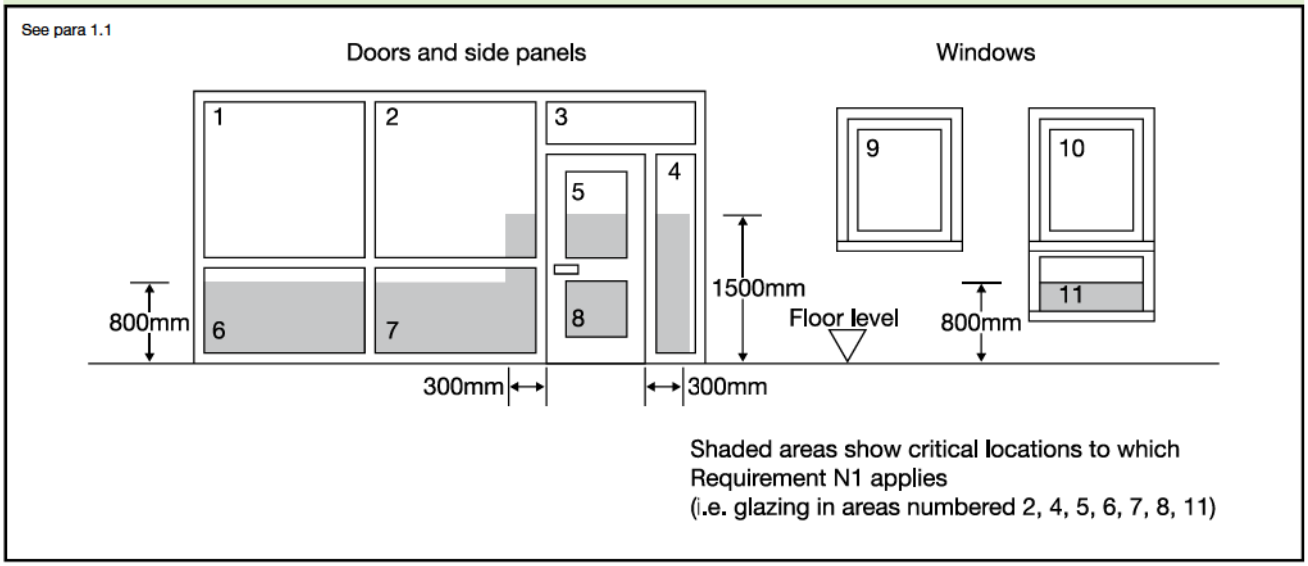


Diagram 1 **Critical locations in internal and external walls**



Shaded areas show critical locations to which Requirement N1 applies
(i.e. glazing in areas numbered 2, 4, 5, 6, 7, 8, 11)