



# Glass and Safety

One of the key functions of Clayton Glass is to provide its customers with a reliable, tested and independently accredited source of safety glazing. All toughened and laminated products sold by Clayton Glass are manufactured to BS 6206 and carry permanent marking as certification of this.

The following information is provided as a non-comprehensive guide to some of the more common questions in relation to the use and application of safety glass products.

## What type and areas of glazing must be safe?

Where glass and glazing products are supplied for domestic use (such as conservatories, garages, double glazing, porches) they must comply with the **'General Safety Requirement' of the General Product Safety Regulations 1994 (GPSR)**. This requires consumer products to be reasonably safe and this may be achieved by conforming to **British Standard BS 6262: Part 4: 1994** (as detailed below) with reference to the Approved Document N of the **Building Regulations 1991**.

The updated British Standard "**BS 6262: Part 4: 1994 Code of Practice for Glazing for Buildings**", introduced new requirements that glazing fitted in 'critical locations' in domestic buildings must be safe.

Clayton Glass manufactures both toughened and laminated safety products to satisfy the requirements of these standards.

## What is a Critical Glazing Location?

Certain internal and external areas are considered 'Critical Locations' in terms of the safety of vertical glazing, as they are at risk from accidental human impact. In these denoted locations it is necessary to use safety glass in order to comply with building regulations. These are –

### **Doors**

Any glazing or part of that glazing in a door, which is between the finished floor level and a height of 1500mm above the floor level.

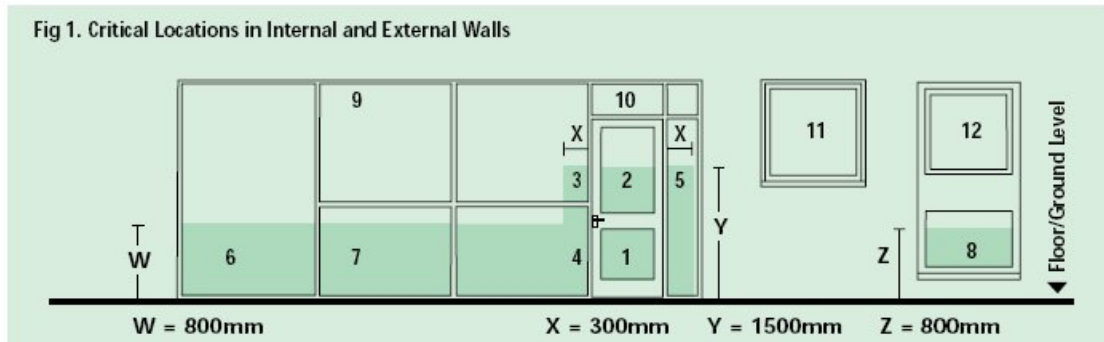
### **Door side panels**

Any glazing or part of that glazing, which is within 300mm of either side of a door edge and which is between the finished floor level and a height of 1500mm above the floor level.

## Windows, walls and partitions

Any glazing or part of that glazing, which is between the finished floor level and a height of 800mm above the floor level.

## Critical Glazing Locations



In the above diagram, the shaded panels 1,2,3,4,5,6,7 and 8 would require safety glazing to be fitted.

Annealed (non safety) glass may be used in locations 9,10,11 and 12

## Conservatories

For conservatories this means in practice all wall panels need to be toughened, as does roof glazing. Toplights generally are exempt although we would recommend these be toughened as a precaution to provide an all safety glass environment.

## Small Panes

The use of annealed glass is permitted in critical areas where the smaller dimension does not exceed 250mm and overall area does not exceed 0.5m<sup>2</sup>. Under these exceptional circumstances annealed glass may be fitted but should not be less than 6mm thick.

## What type of glazing is safe to use in a Critical Glazing Location?

Safety glass, which complies with '**BS 6206: 1981 (1994)**' may be fitted in 'critical locations'. This standard requires the glass to pass stringent impact tests. Providing the glass does not break or breaks safely it is categorised as Class A, B, or C with A being the highest grade of safety glass.

Safety glasses supplied by Clayton Glass are -

### **Toughened (Tempered) Glass**

Toughened glass looks like ordinary glass but receives a special heat treatment process to toughen it. It is much stronger than ordinary glass and on impact disintegrates into small granular pieces, which are not sharp, reducing the risk of injury.

Toughened products manufactured by Clayton Glass confirm to BS6206 Class A, the highest classification of safety glass.

### **Laminated Glass**

Consists of two or more sheets of ordinary glass which are strongly bonded together by a pvb interlayer of varying thickness dependent on the application. This plastic layer provides a barrier and on impact any broken shards of glass will remain attached to the plastic reducing the risk of injury. As the glass generally remains intact, notably this type of product also provides a good level of security.

Laminated glass products may achieve a rating of Class A to C, dependent on their make up.

### **Wired Glass**

This glass has a network/mesh of wires embedded in it. Certain types of wired glass can satisfy the impact requirements for a C rated safety glass whilst giving a level of fire resistance.

### **Small Panes**

The use of annealed glass is permitted in critical areas where the smaller dimension does not exceed 250mm and overall area does not exceed 0.5m<sup>2</sup>. Under these exceptional circumstances annealed glass may be fitted but should not be less than 6mm thick.

## **How can I tell if my glass is classified safe?**

'British Standard 6206: 1981 (1994)' requires that each piece of safety glazing used within 'critical locations' should be marked with the following:

The British Standard number 'BS 6206'.

Identification of the type of glass used i.e. 'L' for laminated, 'P' for plastics, 'T' for tempered (toughened), 'W' for wired or 'SFB' for safety film backed.

The category of safety glass used i.e. 'Class A', 'Class B', or 'Class C' (based on its performance under impact tests)

An identifiable name, trademark or other identification mark of the manufacturer