Fixed low level glazing above ground floor level in dwellings

Purpose

BCA technical guidance notes are for the benefit of its members and the construction industry, to provide information, promote good practice and encourage consistency of interpretation for the benefit of our clients. They are advisory in nature, and in all cases the responsibility for determining compliance with the Building Regulations remains with the building control body concerned.

This guidance note is based upon information available at the time of issue and may be subject to change. The Approved Documents should be consulted for full details in any particular case.

Introduction

This guidance concerns the requirements under building Regulations that apply to low level fixed glazing situated in external walls to upper floors in dwellings. Reference is made to Approved Document K (England) but the principals will equally apply in Wales.

For guidance concerning openable windows, or openable windows used in conjunction with fixed glazing, reference should be made to BCA Technical Guidance Note 16.

Part K4 of the Building Regulations seeks to ensure that where people are likely to come into contact with glass it is unlikely to cause injury or the glazing will resist impact or be shielded or protected from impact.

However, low level fixed glazing is increasingly being used in external walls of buildings at upper floor levels, where it is required to act as guarding from falling. In these cases the glazing needs to comply with the requirement and guidance in Part K2 of the Building Regulations – protection from falling. Part K2 applies where there is a difference of level of more than 600mm.

Key Issues

Where there is a difference in level of more than 600mm, Part K2 sets a minimum barrier height for glazing in external walls to dwellings of 800mm from finished floor level. Where glazing is situated wholly above this level there are no requirements under Building Regulations in regard to safe breakage, impact or protection from falling.

Where glazing falls below this level, it then needs to perform the function of a barrier to falling.

Guidance

Where the design incorporates low level fixed glazing (less than 800mm above internal floor level) that glazing and the framing will need to function as guarding where the drop exceeds 600mm. As such, it should be capable of resisting the loads detailed in BS EN 1991-1-1 with its UK National Annex and PD 6688 -1-1.

The glazing would also need to provide adequate impact resistance, typically by the use of toughened or laminated glazing, further guidance can be found in BS6180.

Alternatively, suitable guarding, that resists the forces referred to in the above standards and complies with Part K with respect to height and climbability must be provided.

See Diagrams 1,2 & 3.
Fixed glazing to be designed to act as a barrier to falling and resist loads given in BS EN 1991-1-1 and PD 6688-1-1. Refer also to BS 6180 for requirements for impact resistance.
Fixed glazing not designed to act as a barrier to falling and resist loads given in BS EN 1991-1-1 and PD 6688-1-1 and / or does not comply with BS 6180 for requirements for impact resistance.

Diagram 2 – Fixed Glazing Not Required To Act As Guarding
(Cill Under 600mm Above FFL)
Fixed glazing not designed to act as a barrier to falling and resist loads given in BS EN 1991-1-1 and PD 6688-1-1 and / or does not comply with BS 6180 for requirements for impact resistance.

Diagram 3 – Fixed Glazing Not Required To Act As Guarding
(Cill Over 600mm Above FFL)