

## Technical Note No. 68 Overhead glazing



*This Technical note deals with the selection of glass to limit the risk of injury from falling glass. It is concerned with the risk of failure, failure mode and post-failure behaviour of the glazing.*

*This Technical Note is one of eight describing the use and performance of glass. They are:*

*TN61 Glass types*

*TN62 Specification of insulating glass units*

*TN63 Glass breakage*

*TN65 Thermal fracture of glass*

*TN66 Safety and fragility of glazed roofing: guidance on specification*

*TN67 Safety and fragility of glazed roofing: testing and assessment*

*TN68 Overhead glazing*

*TN69 Selection of glass to prevent falls from height*

### **Introduction**

Glass used overhead may present a risk to people if it breaks and falls. This was acknowledged for overhead sloping glazing in the CWCT Standard for slope glazing systems published in 1999. This advice was subsequently extended by CWCT Technical Update 10. These documents provide guidance on glass selection and give limits on the types of glass that were considered appropriate for use in overhead slope glazing systems. More recently concern has grown about the safety of vertical overhead glazing particularly when used in large panes or with novel fixing systems.

This Technical Note describes the risks associated with the use of different types of glazing in roofs and facades. It discusses methods of risk analysis and of assessing post failure behaviour and gives guidance on the selection of glazing. It supersedes the advice on glass selection in the CWCT Standard for slope glazing systems and Technical Update 10 and extends the advice to include vertical glazing. The topic of overhead glazing is covered in greater detail in 'Guidance on glazing at height', CIRIA (2005).

### **Definitions**

In this Technical Note the following definitions apply

**Overhead glazing** is glazing that has the potential to fall on breakage, causing safety and other related concerns, including:

- All types of façade (vertical and sloping)
- Glass roofs and canopies
- Glass in barriers protecting against a fall from height.

This is the definition used for 'glazing at height' in the CIRIA document.

**Vertical glazing** is glazing which is nominally vertical.

**Sloping glazing** is any glazing that is not nominally vertical.

These definitions of vertical and sloping glazing differ from those used in BS 6262 and BS 5516 where vertical glazing is considered to include glazing up to 15° from true vertical. The distinction between vertical and sloping glazing in this Technical Note relates to the risk of glass falling from its frame after fracture. It is considered that gravity is likely to cause broken glass to fall at slopes within 15° of vertical.

### **Scope**

This Technical Note provides guidance relating to: