

Glass and Glazing

The safety of glass in buildings is an essential consideration for specifiers, builders and homeowners. Therefore it is critical to ensure that architectural glass possesses a safe break pattern when used in areas where human body impact is a possibility.

Safety & toughened glass

Safety glass is recommended in instances where the glass is used in potentially dangerous situations – such as the thermally toughened glass panels for use in domestic appliances, patio doors or where such panels can be exposed to thermal and/or physical shock.

To avoid serious injury it is critical to ensure that architectural glass withstands such impacts or breaks safely to avoid injury, especially when used in areas where people (adults or children) and glass come into contact.


Glass product tests include:

- Impact testing
- Strength testing
- Fragmentation testing
- Stress testing
- Humidity & boil testing
- Heat testing




CE **BS EN 12150** 


Safety glass for use in buildings

BS 857 

Safety glass for land transport

BS 5544 

Safety glass - Anti bandit glazing

BS 3193 

Toughened glass - Thermally toughened glass for use in domestic appliances

CE **BS EN 14449: 2005** 

Glass in building. Laminated glass and laminated safety glass. Evaluation of conformity/product standard

BS MA 25 

Ships Windows

Glass and Glazing

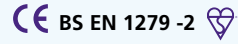
Insulating glass units

Insulating glass units will continue to be an important factor in the fight to reduce energy consumption and waste whilst at the same time improving efficiency of energy usage.

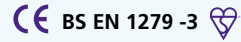
Insulating glass units (IGUs) can be defined as a combination of two or more panes of glass with a hermetically sealed air space between the panes of glass. This space may or may not be filled with an inert gas, such as argon.

The Kitemark scheme for insulating glass units is specified by the National House Building Council (NHBC) and the Kitemark is recognised as the best way to identify certified, quality safety glass for use in buildings. The NHBC is the leading warranty and insurance provider for new and newly converted homes in the UK and specifies the BSI Kitemark for insulated glass units used in windows for their new homes.

The BSI testing facility for insulating glass is amongst the largest and most modern in Europe. It has been established to provide the glazing industry with sufficient testing capacity to allow manufacturers the opportunity to complete the required initial type testing in support of CE marking which BSI Product Services offers under its Notified Body status.



Long term test method for requirements for moisture penetration



Long term test method and requirements for gas leakage rate and for gas concentration tolerances

IGU testing includes:

- Gas leakage from insulating units
- Mist and fogging performance
- Dew point measurement
- Moisture absorption capacity and content
- UV Fogging

“Kitemark windows are recognised by the NHBC as consistently meeting or exceeding the performance requirements of the relevant standards”.

Mr. P .Crane, Head of Standards, NHBC.



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