



## INSULATED GLASS UNITS

### TOUGHENED, LAMINATED & FLOAT GLASS

# SPONTANEOUS BREAKAGE

Please carefully read the information below with regard to the sudden breakage of an insulated glass unit. When glass breaks without warning there are various reasons as to why this happens, as follows:

- **Damage during transport or installation or from subsequent impact during service**  
Due to the stress profile present within thermally toughened float glass, damage to the surface or edge of the glass may penetrate close to the inner tensile region. If this does not lead to instantaneous failure *it can still result in failure at a later date*. Glass edges are particularly vulnerable and can be impacted during handling, transport, and/or installation before the glass edges are fully protected in situ by the framing system.
- **Poor design or installation such as lack of frame clearance or sufficient pane thickness**  
It is important that insulated glass units are specified with the correct pane thickness to withstand expected loads.  
In the event that the glass is specified to an insufficient thickness this may result in spontaneous failure, for example if a strong wind over stresses the glass (wind loading). Installation can also cause issues, specifically if the framing system does not provide the correct clearance between the glass rebate and the edges of the unit. This can result in localised stress points contacting the glass and is usually caused by fixtures, fittings, fixings, coupler bolts and other 'glass to metal' contacts.
- **Unspecified loadings or pressures resulting in excessive stress in the glass**  
Often found to be the most common cause of failure. Increased stress in the glass as a result of unexpected external forces or loads typically caused by, but not limited to, structural movement, impact damage, punctures (protruding fixings etc), exposure to excessive temperatures, etc. Insufficient perimeter protection in the frame glass rebate to protect the edges of the glass provided by the correct use of plastic glazing packers risking collision damage in the frame rebate

## IMPORTANT DECLARATION

Due to the varying factors associated with spontaneous/sudden breakage that are completely out of our control Marlin Windows Ltd. cannot be liable for any associated costs with replacements. Once we have delivered your insulated glass units there is a further and ongoing high duty of care and responsibility required on site by all third parties to carefully look after this vulnerable product. This extends and is not limited to handling, the environment and general conditions that the glass is stored in and quality of final installation into frame work.