

Safety and Security Film



The dark side of glass

Glass features like windows, doors, shower screens, skylights, balustrades and fences are a staple of modern architecture. They significantly impact the lighting, efficiency, ventilation and aesthetics of an interior space. But there is a flipside - the risks associated with broken glass.

Safety and security film has been developed to mitigate these dangers - be it the threat of injury or damage from shattered glass or ease of ingress from unwelcome visitors like thieves.

How it works

Security and safety film is a tough, clear polyester film less than 1mm thick with a safety-strength adhesive. The combination of film and adhesive helps hold glass together in the event of breakage, so instead of pieces falling onto persons or property, they remain stuck to the film.

This reduces the chance of injury or damage, and makes it harder for thieves to enter a building (or vehicle) via a smashed window.

Glass with security or safety film applied can be brought up to safety standard AS/NZS 2208:1996, *Grade A safety glass in human impact situations*.

It can be applied to any smooth glass surface, internally or externally, and comes in a range of different colours and thicknesses (the thicker the film, the stronger the substrate it's applied to becomes). Solar control, UV reduction safety and security film is also available.

Where it goes

WFAANZ recommends a review of your home to consider which windows or glass materials should be bolstered with window film.

Potential hazards are easily accessible windows, toughened glass materials, high traffic areas, glass in and around doors, or where there is risk of someone falling through the glass. Large expanses of glass such as sliding doors also pose a threat.

Homes, offices and government buildings around the world use safety film to help protect against spontaneous glass explosions, bomb blast or extreme weather conditions.

SPONTANEOUS GLASS BREAKAGE

- ☐ *What is it?*
Spontaneous glass breakage (SGB) happens when toughened glass materials like shower screens, balustrades, pool fences, etc. suddenly explode
- ☐ *Why does it happen?*
While SGB events seem random, oftentimes Nickel Sulfide (NiS) inclusion or physical impact or damage to glass edges is at fault
- ☐ *What is NiS inclusion?*
NiS is an invisible particle that can form inside glass during manufacture. These particles expand during the lifespan of the glass, and usually never cause a problem. Toughened glass is about four times the strength of normal glass. Its strength comes from a balance of tensile and compression forces put into the glass during manufacture. Sometimes the expansion of NiS particles disrupts the balance of these forces inside toughened glass, causing the ENTIRE pane to explode. Safety film will not prevent SGB, but it will significantly reduce the associated risks

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