

G O C U B E

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Attachment Systems

In recent years the increase in public awareness of **Security Film** and its advantages has greatly increased. Despite this there are still very few businesses and individuals whom are aware that there is another element which can increase the effectiveness of the film; an **attachment system**.

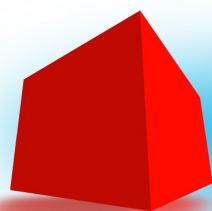
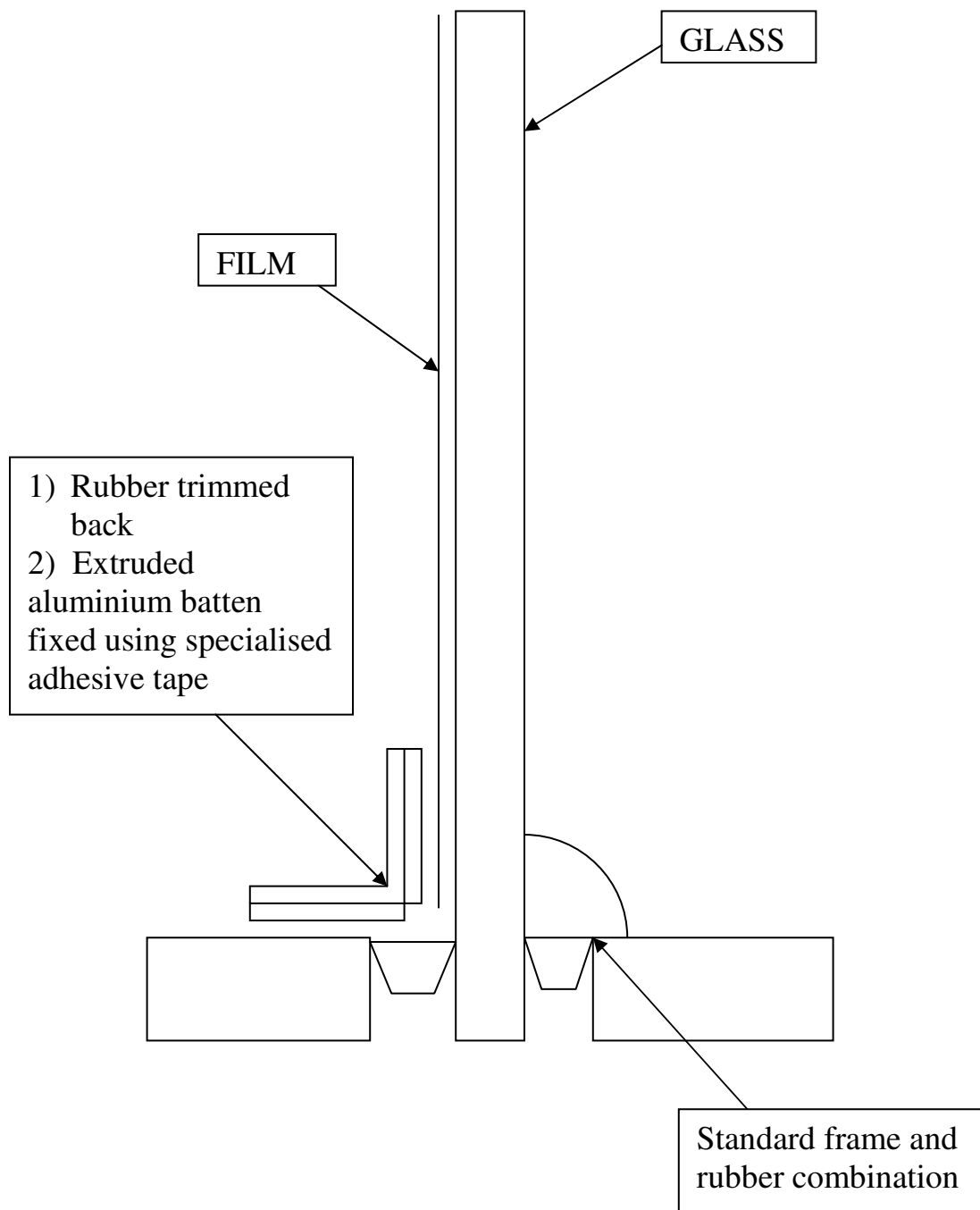
The **attachment system** works in conjunction with the film. It is important to understand that **security film** will not prevent glass from shattering during an explosion or in the event of extreme weather; instead the **security film** acts as a blanket which contains the shards of glass, preventing them from becoming like flying razor blades, the **attachment system** is used to bond and anchor the glass, with film application, to the existing window frame. Without the **attachment system** the majority of the glass shards will be contained but there is a significant chance that the window may become free from the frame and airborne. This could cause serious injury or countless fatalities if it were to land on a person(s).

In general the performance of the **Security Film** is not solely dependant on the quality and strength of the material used in the mutli-layering process but more so, on the adhesive used to affix the film to the glass.

There are a number of attachment / restraint systems which can be used. The major **Security Film** companies have their own preferred method.

Bekaert Specialty Films offers a **Blastight** window attachment system. This system has a number of variables, the most obvious being the two different designs; **structural silicone**, which is available only as a four-sided attachment or a **mechanical fastener**, which is available as a one-, two-, or four-sided attachment. Each of these systems have been subject to range of testing procedure, in conjunction with **Bekaert Security Film**, to ensure they meet safety standards and design requirements which have been outlined by the **General Services Administration**. There have been a number of high-profile jobs which have been undertaken using the **Blastight** attachment system, these include; Department of Energy Headquarters (USA), FBI Headquarters (USA) and the National Imagery and Mapping Administration.

3M has developed a unique attachment system which combines their **Scotchshield Ultra Safety and Security Film**, a highly elastic film, and **Dow Corning 995 Silicone Structural Adhesive**. This combination creates a highly flexible border which is able to bend and twist, absorbing energy from a natural or man-made disaster, in a bid to reduce the effect of the impact. This system is more simple and cost effective in comparison to more bulky and complex mechanical attachment systems. The **Ultraflex System** is almost undetectable as it is made to blend with the frame system and will replace the original window gasket.



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