

# [Materials science](https://assignbuster.com/materials-science/)

[](https://assignbuster.com/)[Science](https://assignbuster.com/essay-subjects/science/), [Physics](https://assignbuster.com/essay-subjects/science/physics/)

Material Science: Ballistic Glass Affiliation Ballistic Glass Material science has prospered towards the provision of ideal solutions towards the addressing of the challenges in the contemporary world. Some of these challenges have been promoted by the increased sense of desire over certain products. Glass has remained to be recognized as a leading brand in that is utilized in the development of many solutions. However, the development of a bullet proof glass (commonly referred to as ballistic glass) remains to be regarded among the leading achievements of material science (Stewart, 2009).   
Glass is mainly associated with the innovations made under industrial chemistry. The development of bullet proof glass remains considered as an achievement of material science in the hope of offering a solution to the concern of safety in its usage. Achieving a product that would allow the transparent qualities of glass and still offer protection from lethal products such as bullets was a milestone achievement. Such is observed as an infusion of the bullet being a technology perceived under the same field of material science (Hsieh & U. S. Army Research Laboratory, 2004).   
Ballistic glass involves the infusion of two sets of materials that do not include the renown Kevlar used in the generation of bullet proof vest. The technology combines thermoplastics with the soft glass to allow a thick layer of ballistic panels. The aforementioned incorporation of different approaches ensures that the glass panes are ballistic and durable. The ballistic glass has found critical applications in banking and transit sectors. The glass is used in developing the teller stations in banking halls. It is, also used in developing armored vehicles, which aim to protect the users while driving in volatile locations. Additionally, the glass is used for protection of the VIP dais during the engagement of public events (Johnson, 2006).   
References   
Hsieh, A. J., & U. S. Army Research Laboratory. (2004). The effects of PMMA on ballistic impact performance of hybrid hard/ductile all-plastic- and glass-plastic-based composites. Aberdeen Proving Ground, MD: Army Research Laboratory.   
Johnson, G. R., Hertel, E. S. J., Grady, D. E., Holmquist, T. J., Lopatin, C. M. Sandia National Laboratories., United States. (2006). High strain rate properties and constitutive modeling of glass. Washington, D. C: United States. Dept. of Energy.   
Stewart, G. B. (2009). Stephanie Kwolek: Creator of Kevlar. Detroit: KidHaven Press.