

Bulletproof Glass Through the Ages

Brought to you by: Total Security Solutions

1640

Prince Rupert's Drops Emerge in England

While not actually bulletproof, Prince Rupert's Drops were a precursor to what would become bulletproof glass. When molten glass is dropped in cold water, it becomes almost indestructible (apart from the tail end which when broken will explode the entire drop).

1909

First Ever Safety Glass Patent Filed in France

Edouard Benedictus successfully filed a patent in France for laminated safety glass. His glass was created by using a sheet of celluloid between two sheets of glass.

1914-18

Safety Glass is Used in World War I

To protect soldier's eyes, safety glass was incorporated into the eye holes of WWI gas masks.



+ Bulletproof glass was also marketed to soldiers and used for both airplane windshields and aviation goggles.

1930

Bulletproof Glass is Implemented in Cars

Bulletproof Glass began getting implemented in cars, but due to its high cost, its use was limited to criminals and the upper class.

1942

Bulletproof Glass is Installed in the Oval Office

After the bombing of Pearl Harbor, one of several security measures taken to protect the president was installing bulletproof glass in the Oval Office.

1961

Trial of War Criminal Adolf Eichmann

Nazi war criminal Adolf Eichmann was put on trial in Jerusalem. During the trial he was housed within a customized bulletproof booth to protect him from assassination attempts.



+ Eichmann's trial is credited with shining a public light on stories of the Holocaust and World War II.

1981

The Vatican Begins Using Bulletproof Glass For Pope-mobile

After an assassination attempt on Pope John Paul II, Vatican officials outfitted his transport vehicle with bulletproof glass.

2004

Total Security Solutions (TSS) Founded

Started because of a strong passion to keep people safe, TSS opens its doors with the mission of providing high quality bullet resistant barrier solutions to keep the employees in businesses nationwide safe.



+ Over the past decade, TSS has provided the most aesthetically pleasing and functional bullet resistant barrier systems in the industry.

1903

Safety Glass is Accidentally Discovered

French chemist, Edouard Benedictus, accidentally dropped a flask on the ground. While the glass broke, it didn't shatter.



+ The flask had held a liquid nitrate solution, coating the glass with a plastic layer, which led to the discovery of "Safety Glass".

1914

Edouard Benedictus Secures US Patent for Safety Glass

After successfully patenting his laminated safety glass in France in 1909, Benedictus did the same thing stateside.

1920

First US Patent Filed Incorporating Bulletproof Glass for Bank Teller Safety

While banks were using bulletproof glass to protect their tellers already, this patent incorporated a voice transmission system to allow for better communication between both the teller and customer, without compromising safety.

1939-45

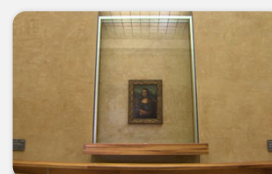
Bulletproof Glass is Used in World War II for Vehicle and Soldier Protection

While this incarnation of bulletproof glass was especially heavy and thick, it was used in military vehicles to help protect soldiers on the battlefields of World War II.

1956

The Musee du Louvre uses Bulletproof Glass

After being attacked by acid and rocks, The Louvre decides to put the Mona Lisa behind bulletproof glass while in residence and while traveling to galleries around the world.



+ The glass implementation helped protect the painting in 1974 and 2009 when it was attacked again for a third and fourth time.

1965

Bulletproof Glass is Used During President Johnson's Inauguration

During his inauguration in 1965, President Lyndon Johnson was protected by bulletproof glass panels due to the assassination of John F. Kennedy.

1982

First US Patent Specifically for Bulletproof Glass

US Patent 4,321,777 is granted on March 30, 1982.

"The present invention relates to a pane or glazing having a high resistance to impacts and in particular to projectiles fired from fire-arms."

Today

Bulletproof Glass Has Come a Long Way Since the 1600s.

From practical jokes and accidental discovery to the implementation in overall building security plans, bulletproof glass is now an integral component to keeping employees safe.



Today there are three common forms of ballistic security glass:

- + Bulletproof Acrylic
- + Laminated Polycarbonate
- + Glass Clad Polycarbonate

Learn more about the strength of modern day bulletproof glass visit www.tssbulletproof.com.

Sources:

www.cmog.org
www.dyneema.com
www.thomasnet.com
www.britannica.com
www.google.com/patents
www.wisegeek.org
www.newspapers.com
www.whitehousehistory.org
www.scribd.com
www.flickr.com
www.history1900s.about.com
www.spiegel.de
www.lbjlib.utexas.edu
www.cnn.com