

THE 8 LEVELS OF BULLET-RESISTANT SECURITY GLASS

Choose the correct level that provides maximum security for you!

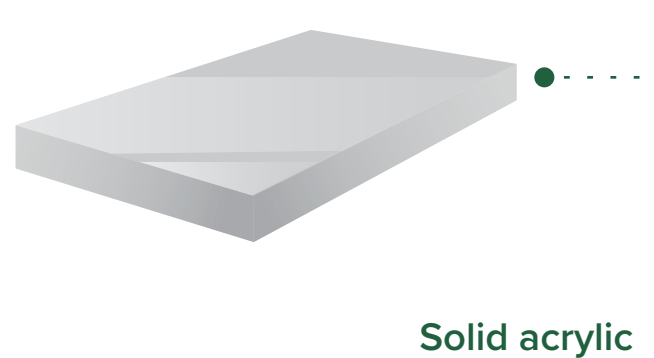
Understanding protection levels is vital to establishing specifications for your bullet-resistant barrier project. TSS protection level ratings are tested to U.L. standards (Underwriters Laboratory) for effectiveness at stopping specific types of projectiles.

4 Forms of Ballistic Security Glass

Bullet-resistant glass is constructed using various materials such as acrylic, polycarbonate, and laminated glass. The aim is to sandwich layers of different materials, resulting in the appearance of standard glass.

FOUR COMMON FORMS OF BALLISTIC SECURITY GLASS

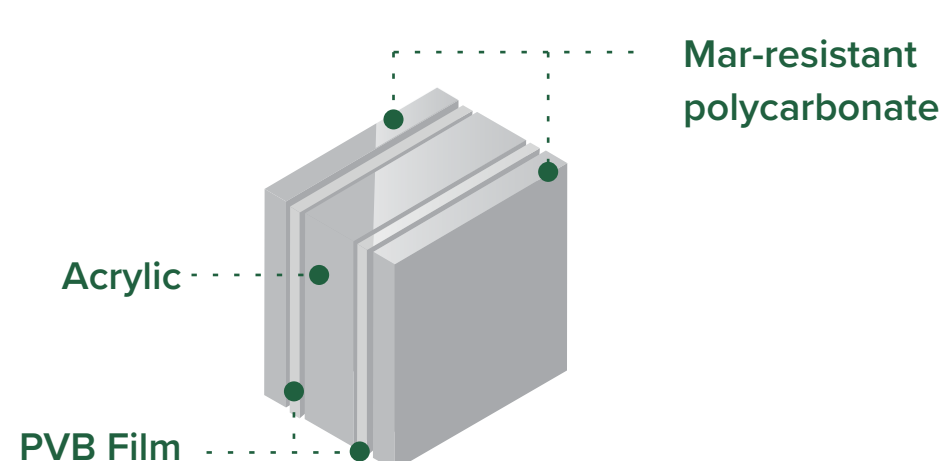
MONOLITHIC ACRYLIC



Best suited for indoor use, acrylic can be highly customized and has superior optical clarity.

PROTECTION LEVELS: **1 2** □ □ □ □ □ □

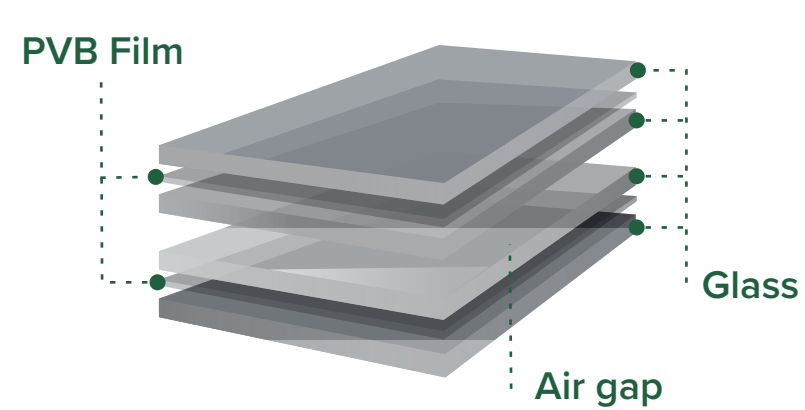
LAMINATED POLYCARBONATE



Best suited for indoor use, it is also customizable. However, lamination impacts optical clarity.

PROTECTION LEVELS: **1 2 3** □ □ □ □ □ □

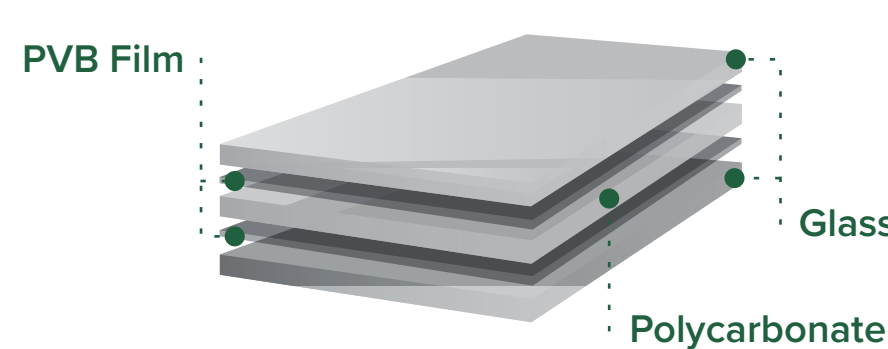
INSULATED GLASS



This glass provides excellent optical clarity, insulating properties, and is used for building exteriors.

PROTECTION LEVELS: **1** □ □ □ □ □ □ □ □

GLASS CLAD POLYCARBONATE



Its thick layers make the highest-rated levels of bullet resistance obtainable.

PROTECTION LEVELS: **1 2 3 4 5 6 7 8**

Standard Weight and Thickness of Ballistic Glass

Weight and thickness can vary depending on the type of security glass installed.



| U.L. RATING | WEIGHT LBS/SQ FT | THICKNESS |
|--------------|------------------|-----------|
| L1 | 7.7 | 1.25" |
| L2 | 8.5 | 1.375" |
| L3 (LP-1250) | 7.7 | 1.25" |
| L3 (SP-1250) | 8.10 | 1.25" |
| L4 | 11.68 | 1.075" |
| L5 | 14.78 | 1.350" |
| L6 | 12.905 | 1.148" |
| L7&8 | 29.3 | 2.5" |

Level Explanations

LEVEL 1: is able to withstand shots from **small caliber handguns**, most commonly used in armed robberies. Most **small businesses use Level 1** bullet-resistant glass as a crime deterrent.

Ballistic material approximate thickness:

- Glazing 0.5"–1.25"
- Fiberglass 0.25"
- Armor Plate 0.25"



9mm Pistol

LEVEL 2: withstands assaults from **larger caliber handguns**, and is made for buildings with **increased security concerns**.

Ballistic material approximate thickness:

- Glazing 0.75"–1.375"
- Fiberglass 0.375"
- Armor Plate 0.25"



.357 Magnum

LEVEL 3: recommend for **larger buildings** that have a **higher threat level** and a greater number of employees or occupants. This level is suitable for environments where threats are potentially more severe and there is a greater level of occupant endangerment.

Ballistic material approximate thickness:

- Glazing 1.25"
- Fiberglass 0.5"
- Armor Plate 0.25"



.44 Magnum

LEVEL 4-8: are designed to **withstand assault rifles and automatic weapons**. Materials rated for Levels 4-8 are cost prohibitive for many types of jobs and are **custom-manufactured** on a case by case basis.

Ballistic material approximate thickness:

- Glazing 1.5"–2.5"
- Fiberglass 1.375"–1.625"
- Armor Plate 0.25"–.3125"



Assault Rifle

Did You Know...

- ⊕ Ballistic framing is as equally important as ballistic glass and should be considered during the design phase.
- ⊕ Additional UL ratings are available for certain levels to protect from shotgun blasts.
- ⊕ With proper maintenance, bulletproof glass has a life span of up to twenty years.
- ⊕ Level 6 protects against smaller .9mm bullets, hence its thinner profile.