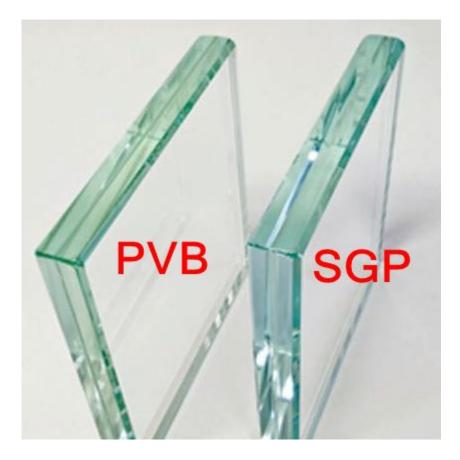
### 5 unique advantages of SGP laminated glass compared to PVB laminated glass



## Introduction to SGP and PVB material properties

**PVB** has been continuously improved over the past 67 years and has become the favorite material for safety laminated glass. It provides many advantages for laminated glass: safety, antitheft and anti-riot, noise reduction, energy-saving and sunlight control, aesthetics, prevent interior furniture color fading, etc.



SGP glass with holes

DuPont SentryGlas®Plus (SGP) interlayer film is a laminated glass interlayer film with significant innovation developed by DuPont. SGP film greatly expands the performance of laminated glass. The tear strength of SGP is 5 times that of ordinary PVB, and the hardness of SGP laminated glass is 100 times that of ordinary PVB laminated glass. SGP laminated glass's high strength, high transparency, durability, various structures, and flexible installation make it easy to adapt to the latest and strictest requirements of today's construction market. Compared with ordinary PVB laminated glass, <u>SGP laminated</u> <u>glass</u> can improve the performance of bulletproof glass and can reduce the thickness of laminated glass.

SGP is specifically designed to meet the needs of today's construction industry. It has the same crushing safety and fragment retention ability as PVB film, but can greatly improve the anti-collision performance, anti-theft and anti-riot performance, and anti-disaster performance of safety glass. If you want to keep the glass intact in the frame, SGP laminated glass can help you realize that; SGP laminated glass is suitable for zenith, canopy, etc, because it has the ability to stand still even after crushing. SGP has a more stable and longer lifespan and also has excellent weather resistance and edge stability.

#### Conclusion:

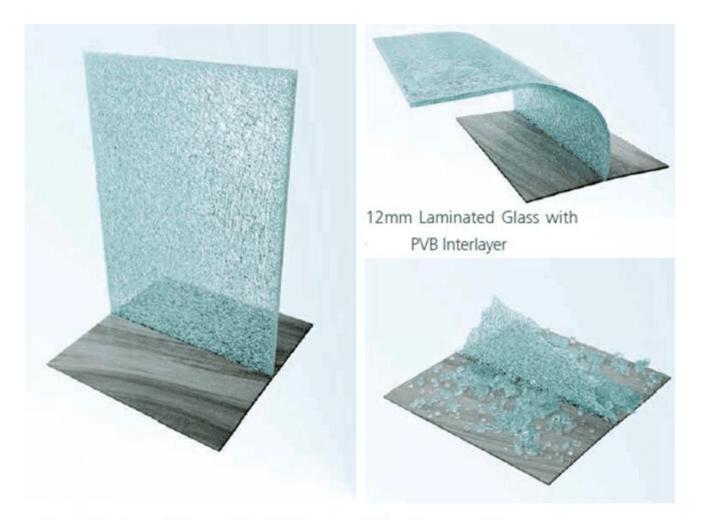
- SGP is a viscoelastic material with high tear strength (5 times that of PVB film).
- SGP film hardness 30–100 times that of PVB film.
- SGP laminated glass is harder than PVB laminated glass.
- SGP laminated glass and a single glass of the same thickness have almost the same bending strength.

# Comparison for PVB laminated glass vs SGP laminated glass:

#### 1. Strength(PVB VS SGP)

• Compared with <u>PVB laminated glass</u>, SGP laminated glass

has higher strength performance. It can effectively reduce the glass thickness, especially for laminated glass with higher thickness.

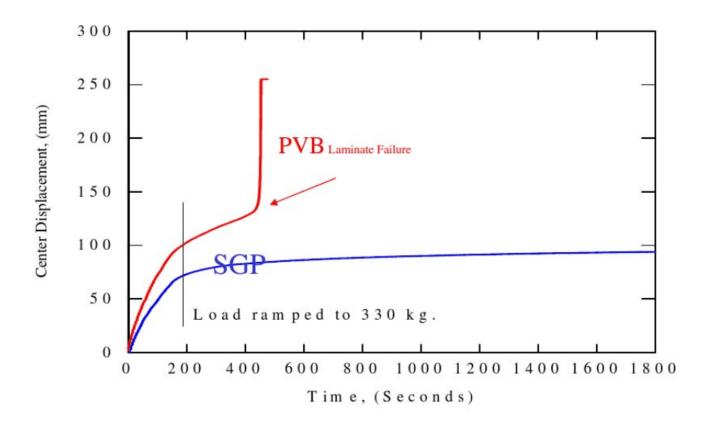


12mm Laminated Glass with SGP Interlayer

12mm Tempered Glass

SGP laminated glass with high strength

sgp interlayer performance data sheet VS pvb interlayer performance data sheet

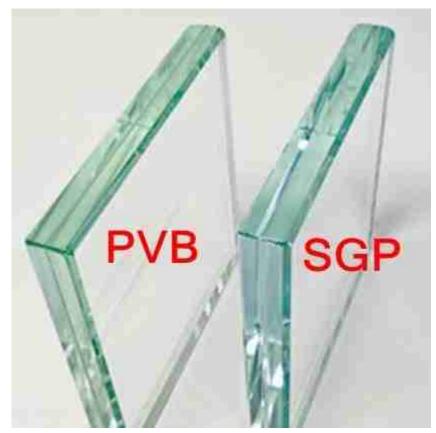


#### 2. Deflection(PVB VS SGP)

 Compared with PVB laminated glass, SGP laminated glass will have higher rigidity. It helps reduce the thickness of the glass.

### 3. Anti-weathering performance (SGP VS PVB)

- Weather resistance test.
- Exposure to natural weather for more than seven years.
- SGP does not have the edge defects of traditional PVB laminated glass.
- No change in color and haze.



PVB glass vs SGP glass

#### 4. The bonding performance of SGP

- The high bonding strength between SGP and metal, such as aluminum or other metal materials.
- Improve the performance of glass after breaking.

#### 5. Aesthetic performance and sunlight control for SGP

- Shanghai Oriental Art Center, SGP interlayer drilling stainless steel plate.
- Transparency effect after combining SGP with ultra-clear glass



Shanghai Oriental Art Center