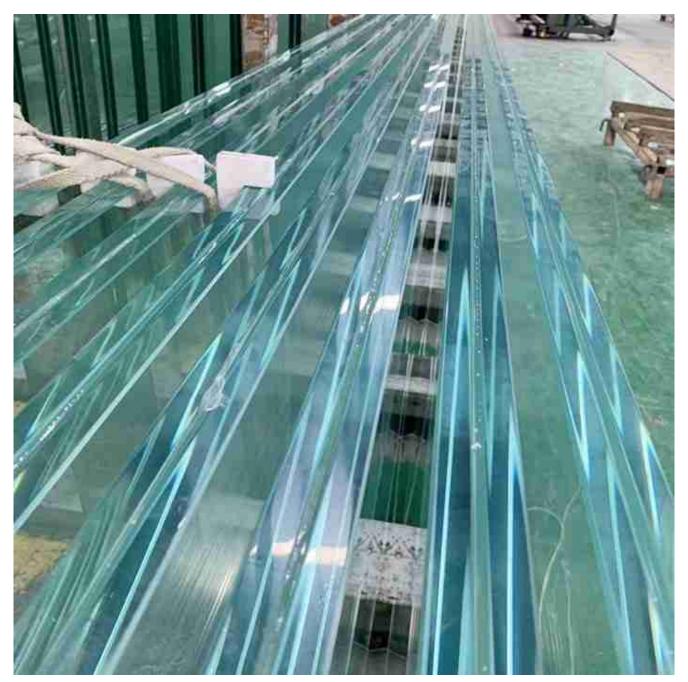
3 reasons why you should use laminated safety glass



Nowadays when building constructions mostly are tending to use glass products such as curtain walls or windows or railings, laminated safety glass is one of the best choices when you are considering it since the designing phase. In this article, we will discuss what is laminated safety glass and why you should use it.



Applications

1, What is laminated safety glass?

Laminated safety glass is combining two or pieces of glass panels with an interlayer PVB or SGP or EVA inside. It is like a sandwich configuration. Sometimes the glass panels are tempered, sometimes it is heat strengthened or just annealed. No matter what kind of glass, when it is produced as laminated configuration, it is safety glass.

When single panel glass(no matter tempered or not) breaks, it will shatter into small pieces and spread away. But in lamination structure, even one or both panels of glass is broken, the broken pieces will still adhere to the interlayer, which will prevent humans from being hurt.



Annealed glass VS tempered glass VS laminated glass

2, Why you should use laminated safety glass?

simply lay on:

- a. **High strength & safety**: Laminated tempered glass offers a higher strength than normal annealed glass or tempered glass. It can endure very high impact or wind load without breaking, even broken, the broken pieces will stick together in the interlayer;
- b. **Soundproofing**: Laminated glass provide extra soundproofing function. For 6+1.52PVB +6 configuration, it will offer a 37dB sound reduction.
- c. **UV protection**: Another important property is that laminated glass provides UV radiation protection. It will assure you a healthy and safe environment. And protect the furniture from fading from solar radiation.
- d. Multiple decoration effects can be achieved when combining functional glass products such as low e glass, heat reflecting glass, PDLC glass, etc.



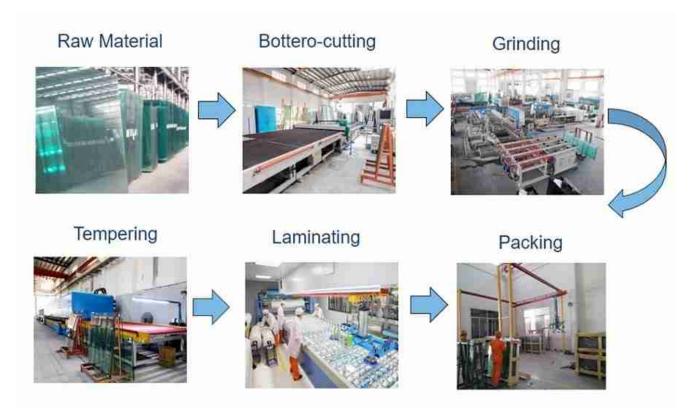
Laminated tempered glass room-soundproofing, UV protection.

3, How is laminated glass made?

There are — — laminated annealed glass or <u>laminated tempered glass</u>. For laminated tempered glass, the production process is as below:

- 1. Cut the raw float glass subject to your final sizes;
- Do the matt polished or finely polished edgework for the glass;
- 3. If there are any holes in the glass products, drill the hole according to the drawings;
- Send the glass to tempering machine, heating to over 650 degrees and cool down rapidly for tempering;
- 5. Transfer the tempered glass to the laminating line, after high temperature and high pressure for over 4 hours in the autoclave. The lamination will be permanently joined together.

As the process picture shows here:



<u>Shenzhen Dragon Glass</u> production process

The laminated annealed glass simply skips the tempering process.

4, Laminated glass vs toughened glass

Most people will ask this question: toughened glass, which one shall I choose?

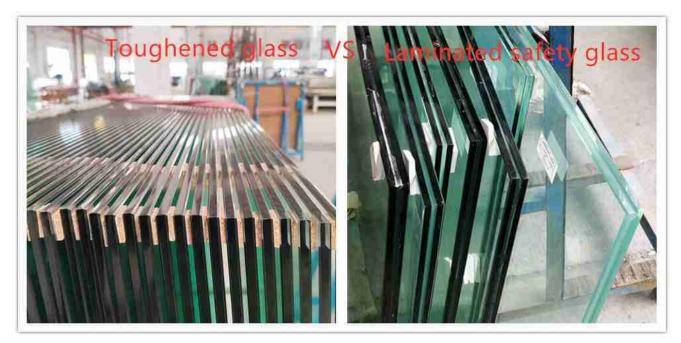
To answer this question, you should first know the difference between laminated safety glass vs toughened glass. As just mentioned above, laminated glass can offer much higher safety than single toughened glass.

In many countries, there are rules that glass applications above 10 meters or higher, should use tempered <u>laminated glass</u> <u>for windows</u> instead of single toughened glass. So, for higher-rise buildings or soundproofing considerations, laminated glass will be more appropriate.

For a simple deck railing or staircase, 10mm or 12mm toughened

glass will be safe enough and economic. Low-rise buildings windows can adopt 6mm toughened glass for cost-saving consideration, etc.

If you are still confused with laminated vs toughened glass, please feel free to contact **laminated glass suppliers**: <u>Shenzhen Dragon Glass</u>, we are ready to answer all your questions.



Toughened glass VS laminated glass

5, PVB vs SGP laminated glass

To answer this question, first, you should know what is <u>SGP</u> <u>laminated glass</u>, SGP is short for Sentryglas, which is a famous subordinate branch from Kuraray. According to Kuraray, Sentryglas was initially developed for hurricane glass glazing applications. Made using ionoplast polymer technology, SentryGlas is chemically different from PVB, making it water-resistant, clearer, and stronger. Compared to the PVB interlayer, the SentryGlas interlayer is five times stronger

and up to 100 times stiffer. For pvb laminated glass, when both glass panels are broken, it will collapse, whereas, for sgp laminated glass, the SGP interlayer will hold the glass together and standstill. Thus ensuring higher safety.

Here is a video that can show clearly the difference between pvb VS sgp laminated glass:

But even though sgp laminated glass is higher strength than normal pvb laminated glass, it does not mean that sgp glass is the perfect choice for you. The option will depend on the applications and your budget. If you are not quite sure about how to choose between sgp or pvb laminated glass, please feel free to contact us, we can help you find the best solution.

6, <u>Shenzhen Dragon Glass</u> laminated safety glass specifications:

- Product name: Laminated float glass/Laminated toughened glass;
- Glass colors: Clear, ultra clear, blue, green, bronze, grey, etc;
- Glass thickness: 5+5mm; 6+6mm; 8+8mm; 10+10mm, 12+12mm, etc
 - 5+5+5mm, 6+6+6mm, 8+8+8mm, etc
- PVB colors: Blue, green, grey, yellow, red, orange, purple, etc;
- Glass shape: Flat/curved;
- Interlayer material: EVA/PVB/SGP;
- Applications: Facade, windows, doors, <u>railings</u>, floors, stairs, partition walls, shower rooms, <u>glass elevators</u>, etc;
- Functions: Soundproofing, decoration, impact resistance;
- Certifications: CE/SGCC/IS09001/CCC/BS, etc;
- Max size: 3200*12000mm;
- Capacity: 3000SQM/day.

7, What is laminated glass price?

The factors that influence the laminated glass price are:

- 1. Glass size: the oversize glass will add extra cost;
- 2. Glass thickness: as we know, the thicker of the glass, the safer, but the cost also raises;

- 3. Interlayer material: Whether you use EVA or PVB or SGP, it will influence the laminated glass price dramatically;
- 4. **Interlayer thickness**: it will subject to your glass size and usage, generally speaking, the larger size, the thicker of the interlayer, so as the cost.
- 5. Quantity: as we know, the larger quantity will share the fixed cost such as production cost and the local transportation or some other charges, and as a result the laminated glass price will be lower.
- 6. Others.

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