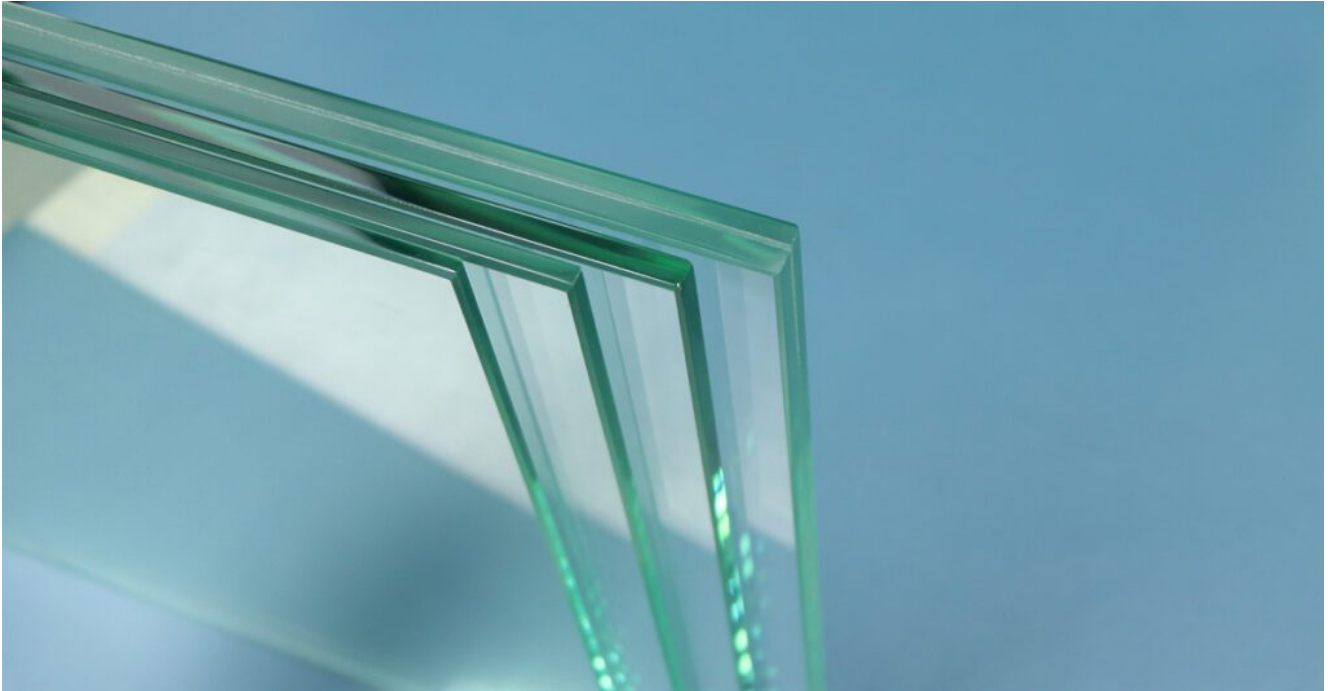


How many types of safety glass do you know?



Safety glass with additional safety features that make glass less likely to break, or less likely to be a threat when broken. Common safety glass includes toughened glass or tempered glass (ESG glass), laminated glass (VSG glass), and wire mesh glass, also called wired glass.

What is toughened safety glass (ESG)?



Tempered padel tennis glass

Tempered glass is made by heating annealed glass uniformly in a tempering furnace at around 600°C, then the [annealed glass](#) is rapidly cooled by blowing air uniformly.

This process is known as air quenching. Rapid cooling with air increases the compression forces on the glass surface and the tension forces inside the glass. As a result, tempered glass is about four times stronger than annealed glass for the same size and thickness.

Tempered glass features

- Tempered glass is at least 4 times stronger than annealed glass.
- It has very high impact resistance, difficult to be broken

- Tempered glass breaks into small unsharp pieces.
- It can resist high temperature changes up to 250°C.

What is laminated safety glass (VSG)?



Curved PVB laminated glass

Laminated glass is a type of high strength glass. It is composed of at least two layers of glass with a plastic interlayer in the middle. First clean and dry the glass, a piece of plastic interlayer will be put on the glass surface, the glass will be transferred to an autoclave after preheating. Under high pressure and temperature, the glass and the interlayer are bonded together permanently.

There are 3 types of interlayers, EVA interlayer, PVB

interlayer, and SGP interlayer. The most common plastic interlayer used is polyvinyl butyral (PVB). PVB interlayers help to reduce the danger when the glass breaks, because all the glass fragments stick to the PVB interlayer.

Laminated glass features

- Laminated glass or also has high impact resistance, it is more rigid.
- Broken glass pieces stuck to the plastic interlayer without falling off from frames, higher safety performance.
- Laminated glass has higher security. Any illegal break-in will be difficult because of the plastic interlayers between the glass panels.
- It reduces UV ray transmission into your house or car, decreasing furniture fading or possibility of skin diseases.
- PVB interlayer laminated glass has a great sound insulation effect.

What is wire mesh glass?



wired glass

Wire glass is made by adding steel wire mesh during the glass manufacturing process. The wire mesh acts as a reinforcement. If the glass breaks because of impact, the pieces of glass are held by wire.

Wired glass has high resistance to fire as it does not break when exposed to fire. So wire mesh glass is also called fire-rated glass or fireproof glass.

However, even though it meets fire codes, wired glass is not strengthened glass. In fact, it has only one-half the strength of annealed glass of the same thickness. In addition, wired glass is not possible to be tempered.

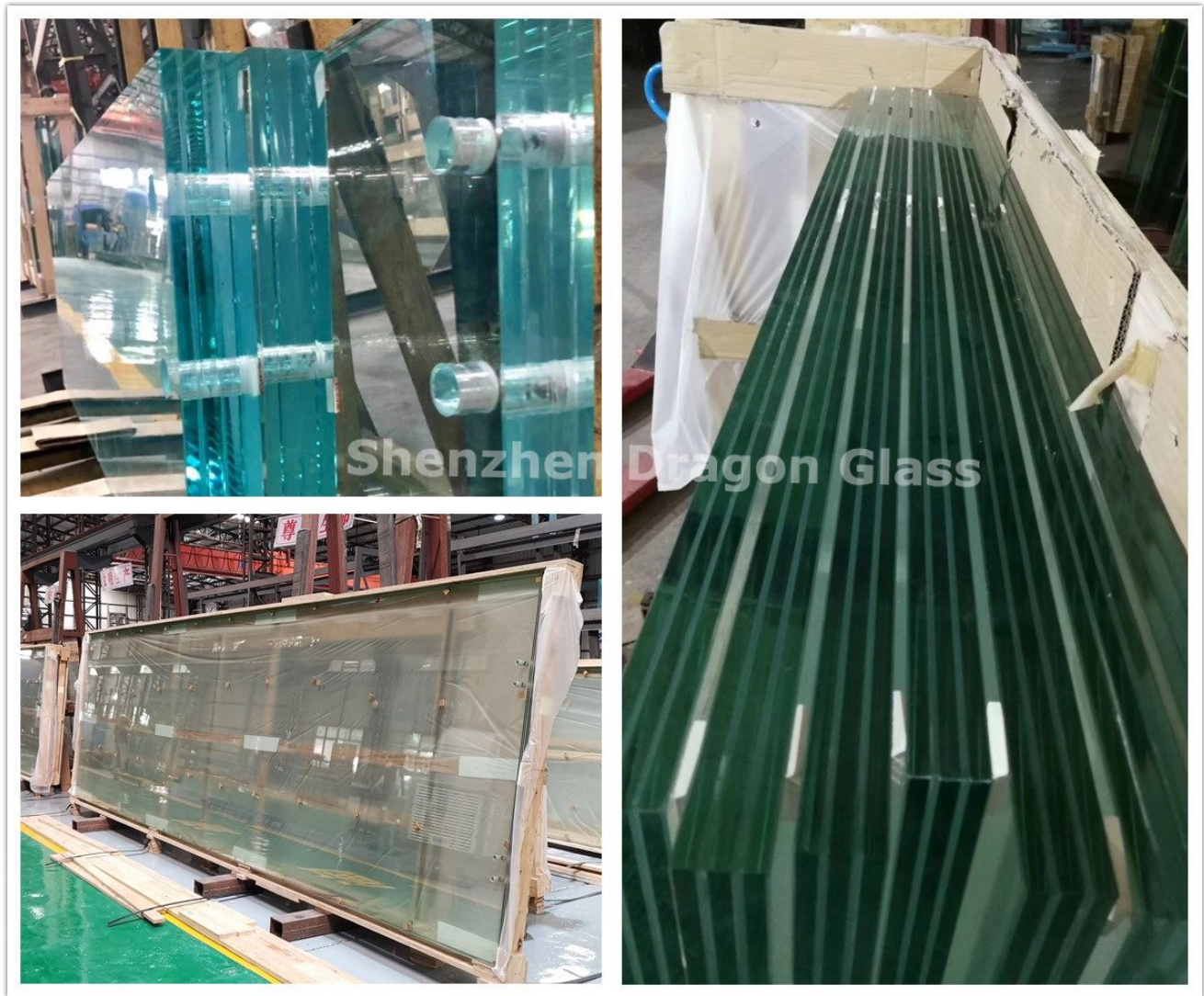
Wire mesh glass features

- Wire mesh glass, used as fire-rated glass will block fire for some time, providing more rescue time.
- It helps prevent burglary or theft because of the wire mesh in the glass.
- Wired glass is less expensive compared to laminated glass.

Safety glass products



Tempered safety glass (ESG glass)



multi layer laminated glass (VSG glass)

Safety glass production line



LandGlass tempering furnace



Laminated glass autoclave

Certificates



Certificate NO.: LBTC210420140S

Declaration of Conformity

The following product has been assessed by us with the listing standards and found in conformity with the EC Council Regulation of (EU) No 305/2011. It is possible to use **CE** marking to demonstrate the compliance with this CPR Regulation.

Report No. : LBTR210420140S
Applicant : Shenzhen Dragon Glass Co., Ltd
Address : C108, Yunhai enterprise headquarters base, No. 42 Caiyun Road, Jixiang community, Longcheng street, Longgang District, Shenzhen City, China
Manufacturer : Shenzhen Dragon Glass Co., Ltd
Address : Yunhai enterprise headquarters base, No. 42 Caiyun Road, Jixiang community, Longcheng street, Longgang District, Shenzhen City, China
Product Name : Laminated (Safety) Glass
Trade Name : N/A
 3mm+0.76PVB+3mm, 4mm+0.76PVB+4mm, 6mm+1.52PVB+6mm,
Model No. : 8mm+1.52PVB+8mm, 10mm+1.52PVB+10mm, 12mm+1.52PVB+12mm,
 15mm+1.90PVB+15mm, 19mm+3.04PVB+19mm.
EC Directives : CPR Regulation (EU) No 305/2011
Test Standards : EN ISO 12543-2-2011
 EN ISO 12543-3-2011

The referred test report(s) show that the product complies with the essential requirements in the above listed standards. The applicant is authorized to use this certificate in connection with the EC declaration of CPR conformity according to the Regulation.

The CE marking as shown below can be affixed on the equipment after the preparation of the necessary technical documentation as well as the conformity declaration by the manufacturer.

Whereas the Manufacturer is responsible for the certification of the product(s) and not exempted from performing all the necessary activities before placing the product(s) on the market.

The Manufacturer is also responsible for the internal production control to ensure the product(s) are in compliance with the essential requirements of the above mentioned Regulation(s).



Chief Manager

Date of Issue Apr 25, 2021

This statement is based on a single evaluation of the sample(s) of above mentioned product. It does not imply an assessment of the whole production.

LABTEST TECHNOLOGY LABORATORY LTD

Mitehua Pukyo Bio Park, Jinxu Road, Pingshan, Shenzhen, CHINA. <http://www.clabtest.com>



Certificate NO.: LBTC210420139S

Declaration of Conformity

The following product has been assessed by us with the listing standards and found in conformity with the EC Council Regulation of (EU) No 305/2011. It is possible to use **CE** marking to demonstrate the compliance with this CPR Regulation.

Report No. : LBTR210420139S
Applicant : Shenzhen Dragon Glass Co., Ltd
Address : C108, Yunhai enterprise headquarters base, No. 42 Caiyun Road, Jixiang community, Longcheng street, Longgang District, Shenzhen City, China
Manufacturer : Shenzhen Dragon Glass Co., Ltd
Address : Yunhai enterprise headquarters base, No. 42 Caiyun Road, Jixiang community, Longcheng street, Longgang District, Shenzhen City, China
Product Name : Tempered glass
Trade Name : N/A
Model No. : 4mm, 5mm, 6mm, 8mm, 10mm, 12mm, 15mm, 19mm.
EC Directives : CPR Regulation (EU) No 305/2011
Test Standards : EN 12150-1:2015
Test Standards : EN 12150-2:2004

The referred test report(s) show that the product complies with the essential requirements in the above listed standards. The applicant is authorized to use this certificate in connection with the EC declaration of CPR conformity according to the Regulation.

The CE marking as shown below can be affixed on the equipment after the preparation of the necessary technical documentation as well as the conformity declaration by the manufacturer.

Whereas the Manufacturer is responsible for the certification of the product(s) and not exempted from performing all the necessary activities before placing the product(s) on the market.

The Manufacturer is also responsible for the internal production control to ensure the product(s) are in compliance with the essential requirements of the above mentioned Regulation(s).



Chief Manager

 Date of Issue Apr 25, 2021

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LABTEST TECHNOLOGY LABORATORY LTD
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[Shenzhen Dragon Glass](#) is a leading safety glass supplier in China, if you are interested in our any of these safety glazing products, please contact us for more details.