

Toughened glass



Tempered Glass (Toughened Glass)

Shenzhen Dragon Glass – Reliable Toughened Glass Manufacturer

What is toughened safety glass?

Toughened safety glass is also referred as toughened glass, tempered glass, is fabricated by heating annealed glass to over 600°C and cooling it rapidly, which locks the outer surfaces of the glass in a state of high compression, and the core or center of the glass in compensating tension. It is a safety glass which is used when strength, thermal resistance and safety are important considerations.



Toughened glass advantages

High Strength

High Safety

Heat Stability

High Strength

The toughened glass performs well in resisting bending and hitting owing to its high strength which is 3-5times that of normal annealed glass. It is able to withstand a surface pressure of 95Mpa.

High Safety

When the toughened glass is broken, it turns into alveolate granules with obtuse angles, which guarantee safety to make sure human harmless, and the toughening process greatly reduces the risk of thermal breakage to ensure less loss.

Heat Stability

The toughened glass is capable of withstanding a temperature change of 250 to 320° while normal annealed glass can only bear 20 to 100°.

Toughened Glass Properties:

- **Thickness:** 4mm~25mm;
- **Max size:** 3300*13000mm;
- **Color:** clear, ultra clear, grey, bronze, blue, green, etc;
- **Shape:** flat / curved;
- **Edgework:** Beveled edge, matt polished, fine polished, etc;
- **Capacity:** 5000SQM/DAY;
- **Certification:** CE & ASTM & AS & ISO9001 & CCC, etc.

Toughened Glass Applications:

[Greenhouse](#)

[toughened glass for greenhouse](#)

[Stairs](#)

[toughened glass for staircase](#)

[Table top](#)

[toughened glass for table top](#)

[Windows](#)

[toughened glass for windows](#)

[Doors](#)

[toughened glass for doors](#)

[Railings](#)

[toughened glass for railings](#)

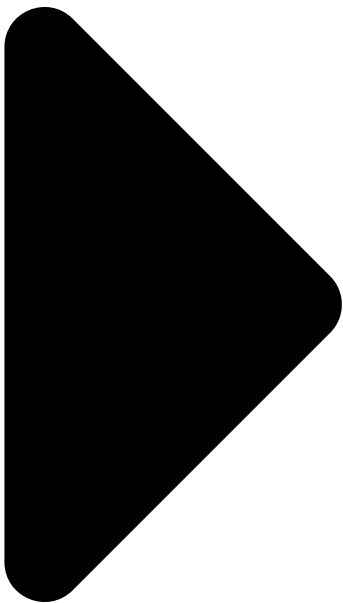
[Roofs](#)

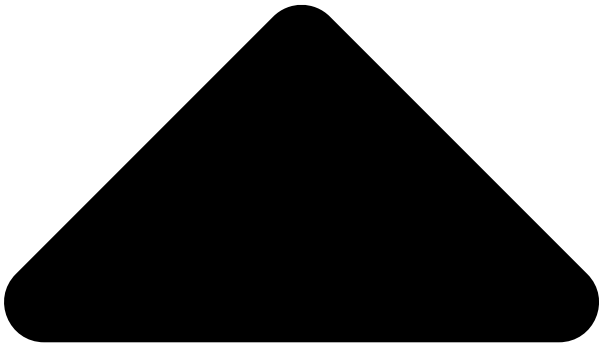
[toughened glass for roof](#)

[Shelves](#)

[toughened glass for shelves](#)

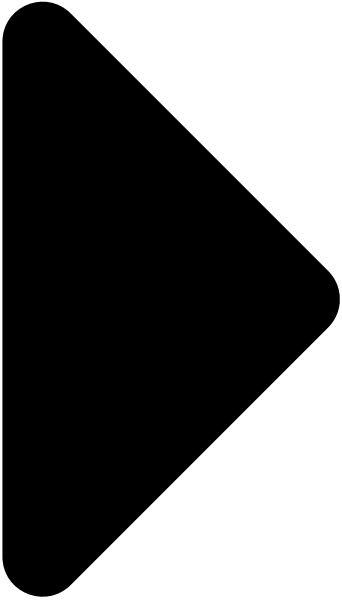
FAQ For Toughened Glass

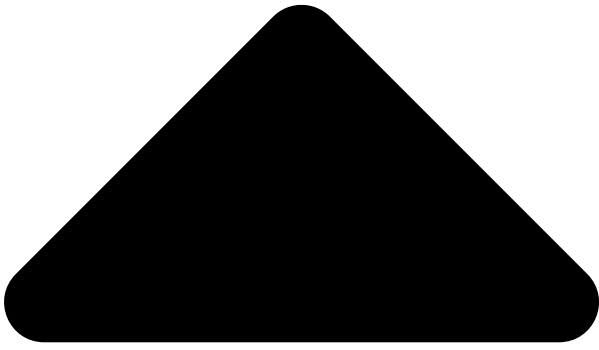




Is toughened glass breakable?

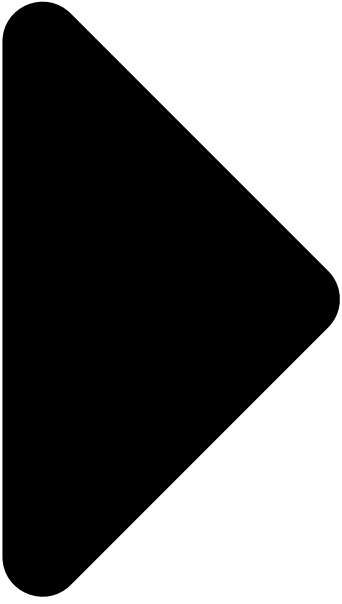
Toughened glass is 5 times stronger than float annealed glass. But it doesn't mean it is unbreakable. Under extremely high pressure or impact, the toughened glass will break into small pieces of glass particles with obtuse angles, but it will do no harm to humans. That is why toughened glass is also called safety glass.

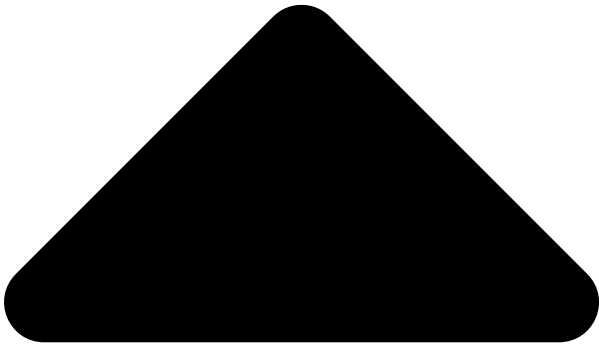




Is toughened glass soundproof?

Yes, toughened glass has certain performance of soundproofing(STC~30dB). But the soundproofing function can be also enhanced by further process such as laminated glass or insulated glass.

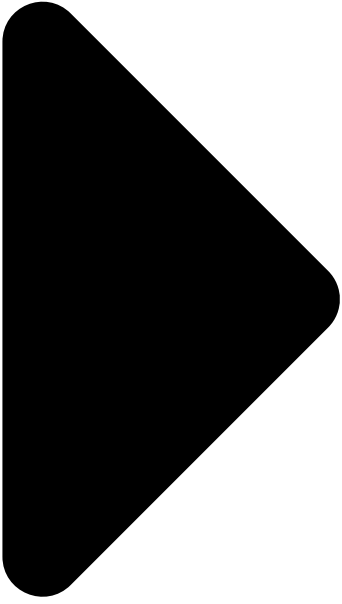


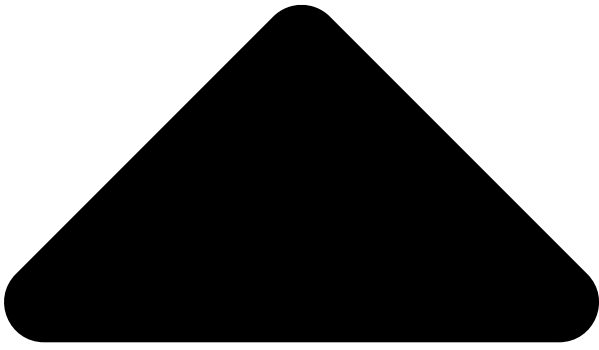


Why does toughened glass explode?

Toughened glass sudden explode because of material impurity or defects due to glass processing, or some other environment reasons(such as mal-matching). In this article you can have a brief view of why and how to solve this problem.

[5 reasons why the tempered glass self explosion and 7 effective ways to avoid tempered glass spontaneous breakage\(2021\).](#)



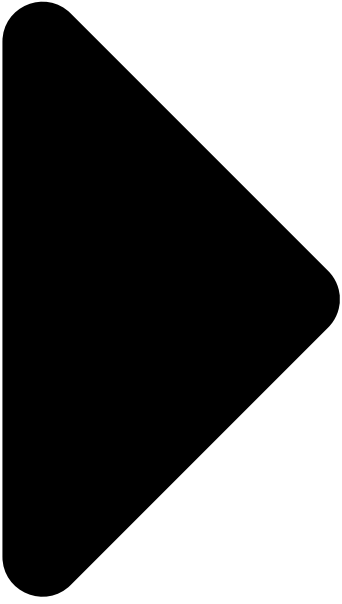


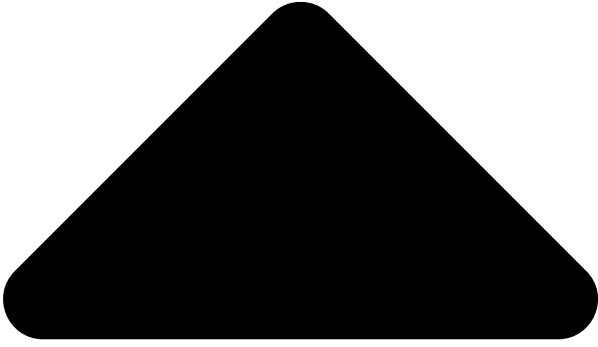
What is toughened glass used for?

Toughened glass can be used for:

- Stairs;
- Table top;
- Greenhouse;
- Windows;
- Doors;
- Roof;
- Balcony;
- Aquarium;
- Balustrade(railing);
- Shelves;

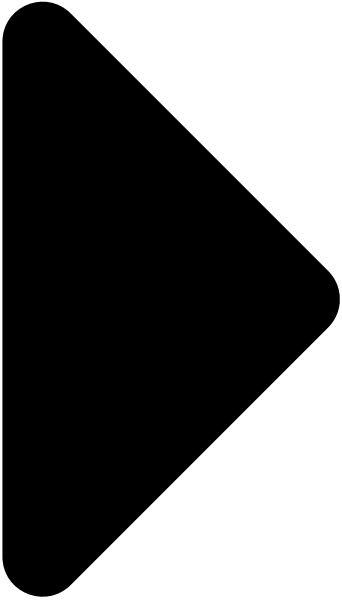
etc.

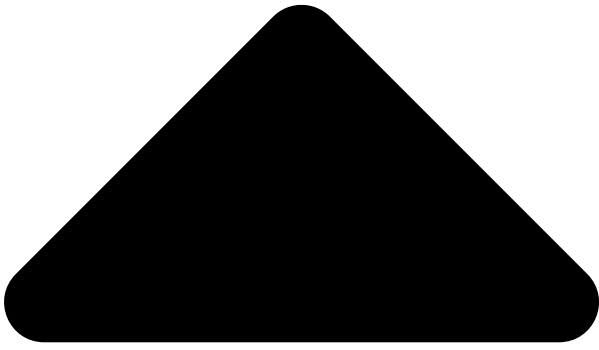




Can toughened glass be cut?

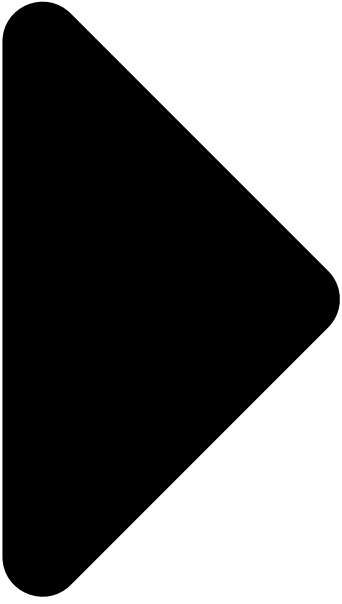
No. Once the glass is toughened, all its sizes and edges are settled. Toughened glass cannot be cut or drilled any more. However, you can do all the processing before toughening.

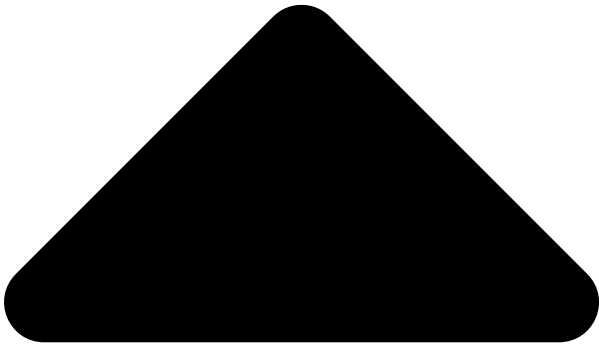




Is toughened glass more expensive?

Generally speaking, toughened glass is higher price than annealed glass base on the same color and thickness. Toughened glass price will be influenced by sizes, holes nos, edgework requirement, quantity, etc. If you need accurate price, feel free to [contact us](#) at any time.





How toughened glass is made?

Firstly, you need to cut the float glass to your desired sizes(leave some extra length(2~3mm for grinding));

Secondly, you need to grind the glass edge(it is specially important, as any defects on the edgework will later cause toughened glass unwanted breakage);

Thirdly, drill the holes on the glass if necessary;

Fourthly, wash the glass and clean the surface by the glass washing machines;

Fifthly, send the glass to the tempering furnace, heat up to 600~700 degrees, and chilled down rapidly by the strong windjet. After that, toughened glass is made successfully.

Tempered glass(toughened glass) products list

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