

## TEMPERED GLASS

**Toughened Glass china supplier and manufacturer.** Jing Hai Glass is Building architectural glass china supplier of in Tempered Glass, Switchable Glass Smart Glass, Laminated Glass, Double-glazed Insulating glass, Hollow glass, Low-E glass, Double silver LOW E Glass, Three silver LOW E glass, Stained Glass, Etc.

Toughened or tempered glass is a type of safety glass processed by controlled thermal treatments to increase its strength compared with normal glass. Tempering puts the outer surfaces into compression and the inner surfaces into tension. Such stresses cause the glass, when broken, to crumble into small granular chunks instead of splintering into jagged shards as plate glass (a.k.a. annealed glass) creates. The granular chunks are less likely to cause injury.



Features :

- Low self explode rate;
- Stable internal quality, low self-explode rate after tempering;

Dimension Range  
250mm - 2400mm



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## **Toughened Glass or Tempered Glass**

Toughened (or tempered) glass is a type of safety glass that has increased strength and will usually shatter in small, square pieces when broken. It is used when strength, thermal resistance and safety are important considerations. In commercial structures it is used in unframed assemblies such as frameless doors, structurally loaded applications and door lites and vision lites adjacent to doors. Toughened glass is typically four to six times the strength of annealed glass.



## Heat Strengthened Glass

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Heat-strengthened glass is glass that has been heat treated to induce surface compression, but not to the extent of causing it to "dice" on breaking in the manner of tempered glass. On breaking, heat-strengthened glass breaks into sharp pieces that are typically somewhat smaller than those found on breaking annealed glass, and is intermediate in strength between annealed and toughened glasses.



## **Toughened Glass known as Tempered Glass or Safety Glass**

Clear Glass Solutions are toughened glass suppliers for commercial and domestic purposes. We have a JUMBO toughening furnace with a capability of 12000 \* 3000 so can accommodate any glass façade/ canopy requirement.

Toughened Glass is one of two kinds of safety glass regularly used in applications in which standard glass could pose a potential danger. Toughened glass is up to four to five times stronger than standard glass and does not break into sharp shards when it fails. Toughened glass is manufactured through a process of extreme heating and rapid cooling, making it harder than normal glass.

The nature of toughened glass causes it to shatter into small oval-shaped pebbles when broken. This eliminates the danger of sharp edges. Due to this property, along with its strength, toughened glass is often referred to as safety glass.

There are two main types of heat treated glass, heat strengthened and fully tempered. Heat strengthened glass is twice as strong as

annealed glass while fully tempered glass is typically four to six times the strength of annealed glass.

Toughened glass must be cut to size or pressed to shape before toughening and cannot be re-worked once toughened. Polishing the edges or drilling holes in the glass is carried out before the toughening process starts.



Clear Glass Solutions have Toughened glass is available as:

Thickness of 4mm to 25 mm including 4mm, 5, 6, 8, 10, 12, 15, 17, 19, 22 mm

Panels sizes up to 2400mm x 6000 mm

Custom sizes to your specific project requirements

Holes, cut outs, and raking to your requirements

Flat double edge polishing, bevel edged

“J” Curved and cylindrical curved toughened glass are available down to radius's of 1200mm

Tinting is available in most colors including red, blue, green and smoked Grey

Heat soak tested tempered glass is available and recommended on glass thicknesses 15mm and above

Toughened glass has a variety of applications such as balustrades, fencing, shower screens, glass doors, glass curtains, partition walls, office doors and other uses requiring increased safety and strength.

Specifiers can nominate Clear Glass Solutions

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## APPLICATIONS

- Picture framing • Architectural interiors
- Facades • Shop fronts • Museums
- Panoramic restaurants • Showrooms
- Luxury commercial decoration • Stadiums/arenas
- Historical preservation • Waiting rooms
- Display windows • Design elements • Partition walls
- Artwork • Cash dispensers • Petrol stations
- Display cases • Balustrades • Store fixtures
- Lobbies • Foyers • TV and recording studios
- Observation rooms • Display units • Internal partitions

- Interpreter / sound booths • Zoos and aquariums
- Terrariums and vivariums • Airports • Control towers
- Bulletproof windows

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**Contact US:**

Office Addr: Room 1107, B1 Block, Tianan Cyber, Nancheng Area, Dongguan City, Guangdong Province, China,

Factory Addr: Taiying Industrial, Hongmei Town, Dongguan City, Guangdong Province, China

Tel: 0086-769-22273585; Fax: 0086-18145870793

Email: [info@jingglass.com](mailto:info@jingglass.com); Mobile(Whatsapp): 0086-18145870793