

# LAMINATED GLASS

#### CONTACT US

5, Jalan Pelubang 32/200 Persiaran Kemuning Utama, Seksyen 32, 40460 Shah Alam, Selangor, Malaysia.

Email : enquiry.jayaglass@gmail.com Office : 1700 81 7917

Mobile: +6012 669 5355



### OUR

**COMPANY** JAYA SAFETY GLASS is one of the leading safety glass processor operates in Malausia. Jaya safety alass began with a vision to produce high quality grade of glass. Since its inception, the company is synonymous with self-improvement. innovation, honesty and integrity.



- Offers greater personal safety after breakage as it tends to remain intact on the frame.
- Provides additional security over other glass tupes
- Provides improved sound control due to the sound-deafening capabilities of the PVB / SGP interlayer.
- Offers high resistance against object penetrations thus providing an effective deterrent against forced entry.
- Create aesthetic sense to buildings

#### WHAT TYPE OF LAMINATED GLASS **WE CAN PRODUCE**

- As per shape, flat safety laminated glass and curved laminated safety glass
- As per processing, non-tempered annealed float laminated glass, heat-strengthened laminated glass, semi-tempered laminated glass, tempered laminated glass, heat-soaked laminated tempered glass:
- As per monolithic glass type, clear tempered laminated glass, solar reflective laminated safety glass, color tinted decorative safety laminated glass, low-e security laminated glass, silkscreen printed / ceramic fritted toughened laminated glass, sandblasted frosted laminated glass, acid etched laminated glass;
- As per composition, double laminated glass, triple safety laminated glass, four layers laminated safety glass, five layers laminated glass, etc.
- As per interlayer, SGP safety laminated glass, PVB safety laminated glass, EVA laminated glass, fabric decorative laminated glass, metal mesh laminated glass, etc.

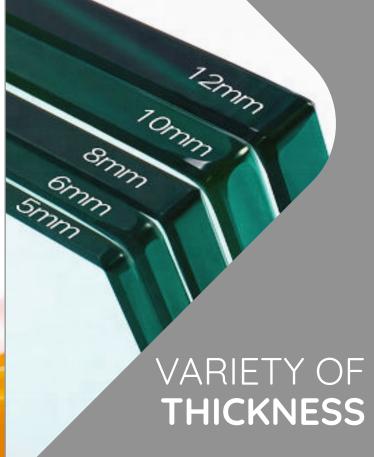


### VARIETY OF COLOR CHOICE

JAYA SAFETY GLASS provide variety of color choice for our client to choose such as red, grey, translucent white, green, dark green & bronze.

Our laminated glass that features a coloured **PVB interlayer**. This means that not only does it help **protect and secure** it brings an enhanced aesthetic appeal to every project.





#### **GLASS USED FOR**

Aluminium windows & door

Small table tops, small shelves

Glass table top

Frameless shower screen

Mirror

Glass wall, glass partition

Balustrade, Staircase

Canopy

#### **THICKNESS**

4mm - 6mm

6mm - 8mm

8mm - 12mm

8mm - 12mm

5mm - 6mm

8mm - 12mm

10mm - 19mm

8mm - 12mm

### PACKING & DELIVERY

- Wooden crates packing option
   BTG use 12mm thick recycled hardwood board, no fumigation, hard plastic safety corner, plastic film covering the glass to avoid dirt, with a desiccant inside, to ensure that the glass is dry and not moldy during transportation.
- Individual carton packaging option
  BTG use 5mm thick environmentally
  friendly corrugated boxes, 10mm thick
  foam board lining, 10mm thick recycled
  hardwood boards around the four sides of
  the glass to prevent damage to the edges,
  free transportation, suitable for retail storage
  of glass tabletops, shower rooms and other
  products
- L-Shaped iron frame packaging option
   Welded iron frame, fixed with plastic-steel
   belt, built-in forklift space, can be quickly
   loaded and unloaded as a whole, which is
   convenient for stocking at the construction
   site.



### OUR **CERTIFICATES**

#### (SIRIM CERTIFICATE)



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### LAMINATED GLASS MARKETS

Architecture: High-grade hotels, villas, offices, conference rooms, toilet doors and windows, shower rooms, kitchen doors and windows, glass curtain walls, greenhouses, science and technology residential buildings, commercial buildings, factories, laboratories, doors and windows, or partitions of clean rooms.

**Car Windows**: Car skylights, subway, high-speed rail.

**Financial and Medical Treatment**: Bank counter window, automatic teller machine security window, hospital baby room or visiting window of intensive care unit.

**Various Industries**: Interior design application, exhibition hall, command center, prison isolation room, home theaters, ticket window, shop window, commercial advertisement and etc.





### IRglass

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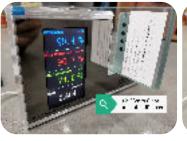
**IRglass can reject 94.2%**, compare **54.4%** ordinary laminated glass. Therefore, it can save the electricity (air conditioning) used

because heat has decreased.

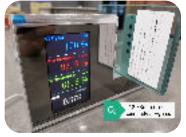
#### IRGLASS PERFORMANCE DATA













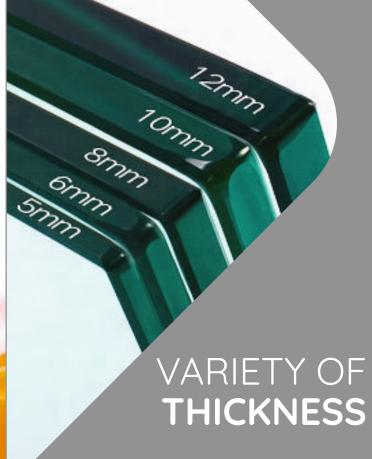


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#### **GLASS USED FOR**

Aluminium windows & door

Small table tops, small shelves

Glass table top

Frameless shower screen

Mirror

Glass wall, glass partition

Balustrade, Staircase

Canopy

#### **THICKNESS**

4mm - 6mm

6mm - 8mm

8mm - 12mm

8mm - 12mm

5mm - 6mm

8mm - 12mm

10mm - 19mm

8mm - 12mm

### PACKING & **DELIVERY**

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**Various Industries**: Interior design application, exhibition hall, command center, prison isolation room, home theaters, ticket window, shop window, commercial advertisement and etc.





# TEMPERED GLASS

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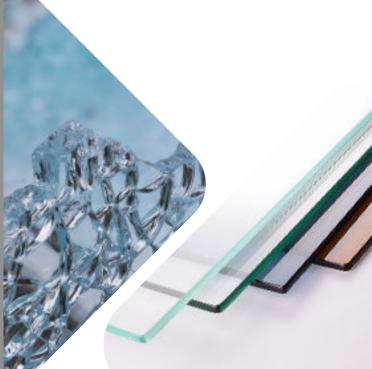


#### **BENEFITS**

- It is five times stronger than regular glass of the same size and thickness
- Five times more heat resistant than standard glass and can withstand temperatures up to a sweltering 250 degrees
- Provides twice the soundproofing abilities of standard glass
- Offers high resistance against object penetrations thus providing an effective deterrent against forced entry.
- Impact resistant and protective compared to ordinary glass

#### WHAT TYPE OF TEMPERED GLASS WE CAN PRODUCE

- As per edge, tempered glass edges can be choose and can be polish in different angle such as sharp angle or curved angle.
- We can produce so many types of tempered glass such as Single Low-E glass (SLE), Double Low-E glass (TDE), Triple Low-E glass (TTE), Post-temperable single Low-E glass (PLE), Post-temperable double Low-E glass (PDE) and Post-temperable triple low-E glass (PTE).
- As another option, we also can produce Tempered glass and Heat Strengthen glass.
   Heat Strengthen glass is 2.5x tougher than annealed glass but the Tempered glass can witstand 5x tougher than annealed glass



#### VARIETY OF **COLOR CHOICE**

JAYA SAFETY GLASS provide variety of color choice for our client to choose such as clear, euro grey, f-green, ford blue, brown & have other **choice of color** too.

We produce by using small additions of metal oxides to the float or rolled glass composition. These small additions color to the glass do not affect the basic properties except for changes in the solar energy transmission. The color is homogeneous throughout the thickness. Once temper still remain strong and safety.



#### **GLASS USED FOR**

Aluminium windows & door

Small table tops, small shelves

Glass table top

Frameless shower screen

Mirror

Glass wall, glass partition

Balustrade, Staircase

Canopy

6mm - 8mm

8mm - 12mm

8mm - 12mm

8mm - 12mm

10mm - 19mm

8mm - 12mm

#### PACKING & **DELIVERY**

- Wooden crates packing option BTG use 12mm thick recycled hardwood board, no fumigation, hard plastic safety **corner**, plastic film covering the glass to avoid dirt, with a **desiccant inside**, to ensure that the glass is dry and not moldy during transportation.
- Individual carton packaging option BTG use 5mm thick environmentallu friendly **corrugated boxes**, 10mm thick foam board lining, 10mm thick recycled hardwood boards around the four sides of the glass to prevent damage to the edges, free transportation, suitable for retail storage of glass tabletops, shower rooms and other products
- L-Shaped iron frame packaging option Welded iron frame, fixed with plastic-steel belt, built-in forklift space, can be quickly loaded and unloaded as a whole, which is convenient for stocking at the construction site.



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## TEMPERED GLASS **MARKETS**

**Commercial Buildings**: Home partitions, offices partitions, hotels partitions, other commecial buildings, doors, windows and decorative panel in interior design.

**Residental Construction**: Glass tabletops, Frameless shower doors, glass shelves, cabinet and glass near fireplace.

**Commercial Appliances**: Cookware, refrigerator trays, mobile phone and screen protector

**Car Windows**: Car skylights, subway, high-speed rail.





### **AXEglass**

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#### CUMPAINI

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**AXEglass**<sup>m</sup>

**BENEFITS** 

- AXEglass have high durability, secure and tougher than normal glass. It can withstand pistol bullet, axe, knife, hammer and etc.
- AXEglass is energy saving safety glass. Heat is generated by INFRARED. AXEglass can reject 99%. Moreover, it can block mostly of the noise polution and it can effectively withstand against high impact.

- There are 3 types of axeglass that we produce such as traditional laminated glass, insulated ballistic glass and glass-clad polycarbonate (GCP).
- For tradional laminated glass, it's crafted from layers of glass and resin, similar to a thick stack of modern car windshields.
- For Insulated ballistic glass, it's good for both interior and exterior applications, and easier to maintain.
- For glass-clad polycarbonate (GCP), it contain a 0.375-inch thick layer of glass, a thin coat of polyurethane and another 0.375 inch sheet of glass. It mostly use for exterior applications.



## VARIETY OF COLOR CHOICE

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#### GLASS USED FOR

Aluminium windows & door

Auto

Glass wall, glass partition

Balustrade, Staircase

#### **THICKNESS**

4mm - 6mm

4mm - 6mm

8mm - 12mm

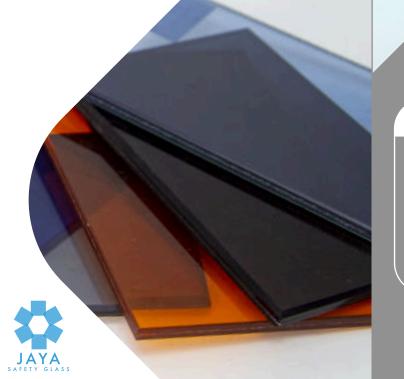
10mm - 19mm

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### AXEGLASS **MARKETS**

**High-class Building**: Jewellery stores, airport security areas, high end luxury homes, liquor store, detention center and pharmacy

**Car Windows**: Armored vehicle, VIP vehicle, airplane windows.

**Financial**: Bank counter window, automatic teller machine security window and bank branch window.

**High-security Building**: Prison, detention center, court houses, police cells and government office, embassy houses.





### SMART GLASS

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SMART FILM/ SMART GLASS SMART PROJECTION SYSTEM

glass to show background pictures

acting as projection screens to

ombining with ultra short

Building Decoration

Through applying to different

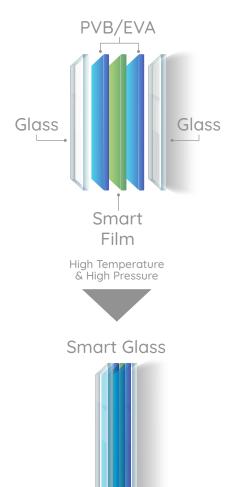
scenes for different functions, transparent or opaque as

you wish, giving you a

### WHAT TYPE OF SMART GLASS WE CAN PRODUCE

- Smart glass also called switchable glass or privacy glass, is a new material that combines smart film with glass.
- There are two types smart glass which is Laminated Smart Glass & Double Glazed Smart Glass.

### LAMINATED SMART GLASS



### HOW IT WORK

• The scientific principles lie in the STF, when it is powered off, the liquid crystal molecules fall into a random state, that diffuse light passing through the sandwich structure and to provide instant privacy. When it is powered on, the voltage drive the liquid crystal molecules align along the direction perpendicular to the film, then visible light go through STF and turns transparent.

#### **SWITCH ON**





**SWITCH OFF** 

### OPTO-ELECTRICAL PROPERTIES

Item		Unit	Criteria	Test Method and Standard
Rated Voltage	ON	V	36 / 48 / 60 (AC50HZ)	Multimeter
Power Consumption	ON	w/sq.m	1.5 / 2.5 / 4.0	Multi - parameter Measuring Instrument
Visible Light Transmittance	ON	%	>80	GB/T 2680-94
	OFF	%	>65	
Directional Light Transmittance	ON	%	>76	GB5137.2-2002
	OFF	%	<3	
Haze	ON	%	<3	GB/T 2410-2008 Spectrophotometer
	OFF	%	>95	
ResponseTime	ON	ms	<45	Liquid Crystal Multi - parameter Measuring Instrument
	OFF	ms	<200	
Viewing Angle	ON	۰	>160	Visual Inspection
UV Blocking Rate	ON	%	99	ISO 9050-2003
	OFF	%	99	
Minimum Privacy Distance	OFF	cm	3	Visual Inspection
Appearance Quality		1	Passed	GB 15763.3-2009
SizeTolerance		mm	Passed	
Heat Resistance		1	Passed	GB 15763.3-2009
Humidity Resistance		1	Passed	
Radiation Resistance		1	Passed	
Falling-ball Impact Peel Performance		1	Passed	
Shotgun Bag Impact		1	II-1	
Sound Insulation		1	>35dB	GB 18910. 1-2002
Heat Insulation		1	>class 2	GB 8484-2008
Vibration Performance		1	Passed	GB 6382. 1-1995
Lifespan	ON	h	>80 thousand	GB 18910.5-2008
SwitchingTimes		Times	> 2mi <b>ll</b> ion	GB 18910.5-2008

### SMART GLASS **ADVANTAGES**















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#### LESEN PENSIJILAN BARANGAN

Product Certification Licence



SIRIM QAS International Sdn. Bhd. dengan ini menganugerahkan kepada SIRIM QAS International Sdn. Bhd. hereby grants to

JAYA SAFETY GLASS SDN. BHD. 9, JALAN PELUBANG 32/200 PERSIARAN KEMUNING UTAMA 40460 SHAH ALAM SELANGOR, MALAYSIA



Lesen untuk menggunakan Tanda Pensijilan di atas barangan a licence to use the Certification Mark on LAMINATED SAFETY GLASS IN BUILDING

Please refer to detail in the SCHEDULE

sebagai mematuhi keperluan as complying with MS 1498 : 2017



Mohd Azanuddin bin Salleh

Ketua Pegawai Eksekutif Chief Executive Officer SIRIM QAS International Sdn. Bhd.

Astichal Sdn. Bhd.
Syarish et 10503-Xi
Syarish et 10503-Xi
Sam 12304 MeVia
Certified Since
Alfrico Srin Alam
Alfrico Srin Alam
Sah Sehlingga
10 September 2020

Tarikh Dikeluarkan : 30 September 2019

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## SMART GLAS MARKETS

Architecture: High-grade hotels, villas, affices, conference rooms, toilet doors and windows, shower rooms, kitchen doors and windows, glass curtain walls, greenhouses, science and technology residential buildings, commercial buildings, factories, laboratories, doors and windows, or partitions of clean rooms.

**Car Windows**: Car skylights, subway, high-speed rail.

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**Various Industries**: Interior design appli exhibition hall, command center, prison i room, home theaters, ticket window, sho window, commercial advertisement and



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