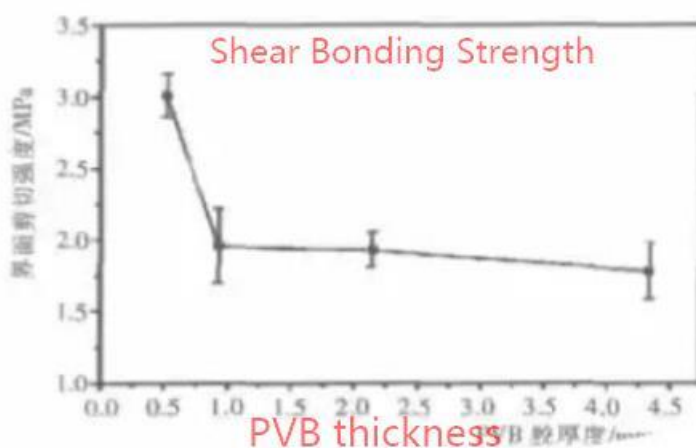
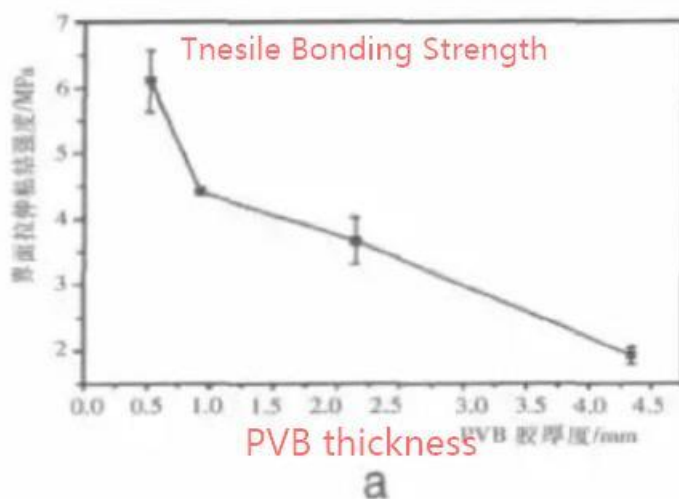


PVB thickness for facade laminated glass

These days one of our customer asked price for 3.2+2.28PVB+3.2MM clear laminated glass, but we suggest changing the glass combination to 4+0.76 Trosifol PVB+4mm for below reasons:

1. According to research, because PVB is soft materials, the thicker interlayer used in [laminated glass](#), the inferior tensile bonding strength and shear bonding strength.



2. Multi layer PVB won't help much in acoustic performance.

Glass thickness is the most important factor deciding the final [soundproof performance](#), but not PVB thickness. Here is a result from Guardian Acoustic calculator:

Glass	STC	OITC
33.1 -6.38 LAMI	32	28
33.4 -7.52 LAMI	32	28
44.2 -8.76 LAMI	34	32
33.4 -7.52 Acoustic PVB LAMI	36	30
44.2 -8.76 Acoustic PVB LAMI	38	32

More info can be found:

<https://glassanalytics.guardian.com/acoustics-calculator>



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3.Multi layer PVB result in higher price.

Even though most factories use China brand PVB, but 6 layers PVB price is about 3 layers international brand.

4.Bad Quality.

As glass processor, I have to say, most China PVB brand cannot pass the boiling water test.

For international certificate apply and test, factory will use Saflex or Trosifol and prepare samples specifically.

For bulk orders, it's hard to pass the test if you test the pieces cut from bulk orders.

Meanwhile more PVB means more yellow color....



Our suggestion, is to change to 4+0.76 Trosifol +4, total thickness is 8.76mm, almost equivalent to original glass, but you'll have extra benefit:

1. Cheaper price than 6 layers China PVB ones.
2. More reliable quality.
3. Extra clear color appearance.
4. Better shear bonding strength and tensile bonding strength.
5. Worry free after sales for superior quality.
6. 2Dbs better soundproof performance.

Many customers don't know clearly the PVB thickness used in their projects, here we conclude and offer recommendation as below:





1. Float glass laminated glass.

The selection of PVB thickness for float glass laminated glass should follow below tables, bulletproof glass, glass for aquariums and multilayer laminated glass are excluded.

Glass Makeup	Glass Thickness	PVB thickness--Shorter side ≤800mm	PVB thickness--Shorter side >800mm
Float glass Laminated glass	≤6mm	0.38	0.38
	8mm	0.38	0.76
	10mm	0.76	0.76
	12mm	1.14	1.14
	15,19mm	1.52	1.52

Even though float glass is quite flat ,0.38mm and even 0.25mm PVB thickness is enough to bond glass together,but for thicker glass ,heavy weight&large panel require thicker PVB to get better bonding effect.

2. Heat treated laminated glass- Flat.

[Heat treated glass](#) products, due to the inevitable glass wave and bow deformation during the tempering process, the gap between the glass caused by this deformation will be filled by the PVB film.Especially when laminating coated glass,silk screen glass,or laminating unequal thickness glass ,the glass overall bow will be more obvious and require thicker PVB.

Glass Makeup	Glass Thickness	PVB thickness--Shorter side ≤800mm	PVB thickness--Shorter side 800mm-1500mm	PVB thickness--Shorter side >1500mm
Heat treated glass Laminated glass	≤6mm	0.76	1.14	1.52
	8-12mm	1.14	1.52	1.52
	≥15mm	1.52	2.28	2.28

Remark:

A. In order to ensure that the glass don't have edge degumming or bubbles during the warranty period, and to ensure the safety performance of the glass, avoid potential safety hazards and future losses, the selection of PVB film should be strict.

B.It's not suggested to use glass combination When the thickness of the two pieces of glass differs by more than 3mm,extra 0.38mm PVB should be added based on above table.

C. For special-shaped tempered and heat-strengthened laminated glass, the thickness of PVB must be increased by 0.38mm because of the greater deformation at the edge of shaped glass.



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D. When the glass height and width are both greater than 800mm and the ratio is close to 1, it is difficult to control the glass waveform, greater deformation will occur, The thickness of PVB must be increased by 0.38mm.



3. Curved heat treated glass,hot bending glass.

Curved tempered laminated glass is increasingly used in construction because of its unique structure and good safety performance, but it also brings many problems. Many bent and tempered laminated glass has edge cracking and bubbles shortly after installation, which brought huge losses to both manufacturers and owners.

Curved heat treated glass has a curvature due to the glass itself, the curvature error and the existence of tempering deformation determine that the thickness of the PVB film in the middle is thicker than that of ordinary laminated glass, and its minimum thickness is 2.28mm.

Glass Makeup	Glass Thickness	PVB thickness--radius >3000mm	PVB thickness--radius ≤3000mm
Heat treated glass Laminated glass-Curved	≤8mm	2.28	3.04
	≥10mm	3.04	3.04
Hot bending laminated glass	≤6mm	0.76	1.14-1.52
	≥8mm	1.14	1.52

Confirming the PVB thickness is important, but selecting the right PVB brand is also quite important. Reputable China PVB brands include Decent, KB, and international brands-Trosifol, Saflex, Sekusui, etc.

We work with China reputable glass processors with EN14449, IGCC certificate for laminated glass, superior quality and offer 5 years warranty. Beside PVB, we offer functional PVB products such as acoustic PVB, Solar control PVB, colorful PVB etc. Kindly contact us if you cannot confirm the right PVB thickness for your project, or need [laminated glass price](#).



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