

Improve the quality of laminated glazing in 5 reliable ways



In the [previous article](#), we discuss the reasons for the unqualified laminated glazing in production. Today, let's analyze how do we Shenzhen Dragon Glass controls the quality of the glass lamination sheet in every production detail.

The human factor

1□**Production personnel:** Regular or irregular inspections should be carried out on each link. Including the flatness of the tempered glass, the consistency of the bent tempered glass and the hot bent glass, the cleaning of the glass before the pre-pressing stage, and the room temperature and humidity of the combined sheet. The state of laminated glazing after pre-pressing, and the key parameters of each process.

2□**Purchasing personnel:** The purchased materials should be carefully inspected and recorded.

3□**Quality inspection personnel:** Confirmation inspection of the laminated glazing processes.



The equipment of produce laminated glazing

Cleaned regularly, avoid insufficient cleanliness of the glass

to cause pollutants to enter the middle layer of the laminated glazing.

EVA glass lamination sheet: confirms whether the indicated value of its vacuum gauge is valid and correct, whether the vacuum bag is intact and undamaged to ensure its vacuum degree. Check whether the temperature control device of the equipment can accurately control the temperature and measure the temperature correctly. **PVB and ion polymerization glass lamination sheet:** check whether the pressure roller of the pre-pressing equipment is flat to avoid insufficient local pressure and fail to roll effectively. Check whether the temperature control device's indication is accurate and the glass conveying speed control device is effective. The autoclave equipment regularly checks the accuracy of the pressure valve.

Checked the temperature control device of the autoclave □to avoid the influence of too low or too high temperature on the film.



The materials of the glass lamination sheet

Producing tempered laminated safety glass panel or curved laminated safety glass panel, it is necessary to pair a flat or curved tempered glass with curved glass. Flat or bent tempered glass should be produced in the same position as tempered glass in the two furnaces for interlayer production, and hot bent glass should be produced with hot bent glass in the same mold to avoid excessively large glass waveforms after tempering, resulting in excessive glass gaps or The curvature of the curved steel tempered glass and the hot curved surface glass deviates from the degree of agreement.

The chemical glue and various types of films used in the middle layer of laminated glazing should be checked for airtight or vacuum packaging after receiving materials to avoid contamination of the middle layer material during transportation.



Detailed production control

When producing wet laminated glass, in order to ensure that the amount of grout produced by the wet laminated glass is sufficient, it is necessary to observe whether there are bubbles in time after the glue is filled. It should be tilted and turned several times, supplemented in time, and polymerized after checking and confirming that there is no unsaturation of filling.

When producing dry laminated glass, attention should be paid to the pretreatment process. It should be noted that the temperature of the processing chamber at this stage should not be too high to avoid pre-sealing of the edges.



Production Environment

Production personnel in the storage of intermediate layer materials, glass cleaning, and lamination should pay attention to the cleaning of the glass to avoid pollution of the glass or the intermediate layer, especially organic pollution, Resulting in the failure of the radiation resistance test. The glass that needs to be cleaned should be isolated in a separate area.

Before the glass is combined, the surface oil, dust, and other impurities that cannot be treated by the cleaning agent should be manually cleaned. It is best to use a special glass wiping

cloth for cleaning. Install enough fluorescent light sources under the glass wiping table for inspection.



The production of wet laminated glass and EVA laminated glass should be grouted/combined in a clean environment to avoid contamination of the glue/EVA film during the grouting/combination process.

The wet laminated glass should also pay attention to the light conditions in advance to ensure the stability of the photopolymerization process and avoid an insufficient polymerization process. When the temperature is too high, the reaction temperature of the slurry during the polymerization process exceeds its boiling point, and low-boiling substances will vaporize to produce bubbles.

For PVB/ion polymerized interlayer laminated glass, the temperature and humidity should be strictly controlled according to the requirements of different manufacturers to prevent the film from being too hard or damp, thereby affecting the quality of the laminated glass.



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