

Delamination Analysis of Laminated Glass with Polyvinyl Butyral PVB Interlayer Film

By www.helloglass.com



Condition One: Delamination Appears in Lines.

Reason:

When combining the glass with the Polyvinyl Butyral PVB interlayer film, some folds occur, or some place of Polyvinyl Butyral PVB interlayer film is too thin due to the hard pulling of the Polyvinyl Butyral PVB interlayer film. Especially the place near the hole or edges, some Polyvinyl Butyral PVB interlayer film have been shrink, so the Polyvinyl Butyral PVB interlayer film is too thin or even gone between the too glasses.

Solution:

When combining the glass with Polyvinyl Butyral PVB interlayer film, pull the Polyvinyl Butyral PVB interlayer film gently, make sure no fold of Polyvinyl Butyral PVB interlayer film,

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and the Polyvinyl Butyral PVB interlayer film is 2mm wider than the glass. And also cut the Polyvinyl Butyral PVB interlayer film gently.

Condition Two: Delamination in Edges and Holes of Laminated Glass with Polyvinyl Butyral PVB Interlayer Film

Reason:

The plainness of the edges and holes of the tempered glass is not good.

Solution:

Adjust the plainness of the tempered glass, clip the edges of the pre-laminated glass before putted into the autoclave. But don't use too big clips, in case the PVB Film's shape changes.

Condition Three: Delamination on Edges and Holes After the Laminated Glass is Installed in the Building

Solution: Install the laminated glass gently. it's better if use the wrench with scale to hole the laminated glass. Make sure the glass glue is suitable for the laminated glass, and it should be neutral glue.

Condition Four: Irregular Delamination of Laminated Glass with Polyvinyl Butyral PVB Interlayer Film

Reason1:

The Adhesion of Polyvinyl Butyral PVB interlayer film and glass is not strong.

Solution1:

The washing glass water is not good quality, it's better use the water whose electric conductivity is lower than 20us.

Solution2:

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The Polyvinyl Butyral PVB interlayer film absorbed too much moisture, maybe more than 6%. If moisture of Polyvinyl Butyral PVB interlayer film is higher than 1%, the laminated glass may appear white haze.

Solution3:

The combination of pre-laminated glass and roller exhausting air stage maybe not operate correctly, which lead to Polyvinyl Butyral PVB interlayer film not reacted perfectly. The main parameters are temperature, pressure and time.

Solution4:

The glass surface is not clean and dry enough.

Reason2:

The Polyvinyl Butyral PVB interlayer film is too thin.

Solution:

Use thicker or more layer of Polyvinyl Butyral PVB interlayer film.

Reason3:

The plainness of the tempered glass is not good.

Solution: Choose better quality tempered glass.

Condition Five: Delamination of Laminated Glass with Polyvinyl Butyral PVB Interlayer Film When in Boling Water Test

Reason1:

Two much air contained inside the laminated glass with Polyvinyl Butyral PVB interlayer film. Solution1:

Sealing the edges too early in the pre-pressure exhausting air stage, which lead to the air stocked inside the laminated glass. Although, it seams successful when the laminated glass come out from the autoclave, but when in the boiling test, the bubbles will appears.

Reason2:

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The Polyvinyl Butyral PVB interlayer film has absorbed too much moisture before laminating. Solution2:

Adjust the storage conditions, make sure the moisture of Polyvinyl Butyral PVB interlayer film is less than 0.55%.

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