

HEAT-TREATED LAMINATED LENSING EFFECT

Optical distortion is a function of a natural phenomenon caused by heat-treated laminated glass – this is otherwise referred to as a “lensing effect.”

Annealed glass is not perfectly flat as is. Once glass is heat-treated, glass will become distorted from the heat-treating process (this is an inherent characteristic of heat-treated glass). It is not possible to heat-treat glass without distortion. Since annealed glass is not perfectly flat, it is also possible for annealed laminated glass to be distorted.

When any heat-treated glass is laminated together, the interlayer will fill the non-flat/distorted areas and will result in a “lensing effect”. This is because two pieces of glass, with their own unique distortion, are being bonded together – so the distortion becomes exaggerated. The more distorted, thinner or larger the size, the more exaggerated and apparent the lensing effect will become.

Unfortunately, there is no way around this phenomenon if heat-treated laminated glass is required. The only other option would be annealed laminated glass if the specification or local code allows for it – this would be the lowest level of distortion. Another option, if tempered laminated is required, would be to increase the thickness of the laminated glass to be able to use thicker glass that would have less distortion from heat-treating.

Any changes in size and build up would need to be evaluated for structural and design considerations prior to ordering.

Visual distortion on heat-treated laminated glass is not warranted and sold “as is”.

It is highly recommended that you order a full-size mock up for client approval.