



TempRite Heat Treated Glass Specifications

During the process of heat treatment, the original flatness of the annealed glass is modified. This change is part of the heating and cooling process and cannot be eliminated even with the best industry equipment and craftsmanship. These changes are referred to as roller wave distortion and glass bow and warp. Typically thicker glass will yield less distortion.

ASTM C-1048 establishes the industry standards for dimensional variations that occur in the fabrication of Heat Treated Glass. A complete text of this copy written document is available for purchase at www.astm.org

The glass exiting the TempRite air quench is checked roller wave distortion by measuring the peak to valley of the glass surface in the center of the lite, or 10-1/2" (267mm) from the leading or trailing edge. There is no industry standard for roller wave; however a tolerance of 0.005" is typically specified by architects.

According to ASTM C1048, glass can be checked for localized bow and warp by measuring it in a freestanding vertical position as it sits on blocks at the glass quarter points. A straight edge measurement is taken of the concave surface, parallel to and within 1" of the edge. Glass that is too large for this measurement is placed horizontally with the concave side down.

Allowable tolerances are determined by the glass thickness and edge dimension. These tolerances range for 3.0mm double strength from 0.12 "to 0.75", and for 6.0mm ¼ glass from 0.08" to 0.94", each depending on the overall size of the glass.

When viewed under certain conditions heat treated glass can exhibit a pattern of iridescent spots or darkish rings. This is caused during the air quench process. Viewing the glass at sharp angles, polarized light, thick glass, and glass coatings can all enhance this pattern. This is not considered a discoloration or a non uniform color or tint.

Small surface particles of dust or small glass particles (fines) from the cutting process may also adhere to the softened glass surface as it is passing thru the air quench. There is no industry standard for allowable surface particles.

Once glass is at the jobsite many of the concentrated liquid cleaners that are used as lubrication for glazing gaskets may also cause glass staining. Alkaline cleaning materials, such as ammonia or trisodium phosphate, will attack and etch glass surfaces. Glass should always be thoroughly

rinsed with clean water to avoid staining.