



The tempering process of glass increases the strength of the glass around 5 times, offering a **greater resistance** to breakage. However, the tempering process can cause problems if the plate glass used has microscopic inclusions within it. Nickel sulphide particles formed in the production of the plate glass will cool down at a different rate to the rest of the glass. This can result in the toughened glass shattering, seemingly spontaneously. The heat soaking process serves to identify any problematic sheets of toughened glass. The tempered glass is heated to a temperature of around 260C for a minimum of 2 hours and then cooled down slowly which forces the nickel sulphide particles to transform to their low-level temp state during the process, causing the toughened glass to shatter in a controlled environment. **Heat Soaking will identify more than 95% of problems panes.**

At Ravensby Glass **we have 3 of our own heat soaking ovens, one of which is 6000mm long** to accommodate larger projects. This allows us to heat soak glass in accordance with the European Standard **EN14179**. The use of heat soaked tempered glass is recommended where the risk of spontaneous breakage would cause difficulty, either from a replacement point of view or where falling glass fragments may be unsuitable, such as roof or high level glazing, balustrades, screens and high level curtain walling.

Heat soaked toughened glass is appropriate when there is a high risk of human impact. If breakage does occur, the breakage pattern is such that the resultant pieces of glass are **relatively harmless** and are unlikely to cause serious injury.

Due to the impossible nature of identifying such inclusions whilst processing Ravensby Glass, nor any other manufacturer, will guarantee against these type of spontaneous failures including any associated costs or claims pertinent to the replacement glazing