

# Technical Bulletin

1001 – When to Heat Soak

March 2022 - V1.0



**Australian  
GlassGroup®**

# TB 1001 – When to Heat Soak

## Cited National Standards:

- **AS 1288:** Glass in buildings – Selection and installation.

---

## What is Heat Soaking?

The heat soak test was developed to detect unwanted inclusions in toughened glass that pose a risk of future spontaneous explosion. This is where toughened glass could explode without warning anytime in the future. Nickel sulphide is the biggest offender and these inclusions can be present in the raw ingredients of glass (eg. silica sand). This is where using reliable glass manufacturers plays a significant role for consistency in glass quality with low risk of inclusions. For more information on heat soaking itself, and why it is performed, see **Technical Bulletin 1011 – Breakage of Toughened Glass**.

The purpose of this Technical Bulletin is to advise what panes of glass on a building require Heat Soaking.

---

## Required Heat Soaking

The National Construction Code (NCC) references **AS 1288** in the need for Heat Soaking for classes 2 to 9 buildings (ie. Commercial buildings), whenever monolithic toughened glass is vertically glazed above 5m from the space below (refer to clause 3.8 of **AS 1288**). 5m is measured from the top of the glass pane and only refers to the outer pane of an Insulated Glass Unit (IGU), if an IGU is used. This will however apply to the inner pane of an IGU if it is situated in an atrium, open staircase or other large internal void where the glass is 5m or higher from the space below. It also applies to all other toughened glass applications at height, including balustrade panes. Heat soaking is not required in this instance when a balcony, awning, or similar, provides protection to the occupants of the space below. To be deemed adequate protection, the balcony/awning must protrude out from the building a minimum distance of 2/3 the height of the glass pane and be situated at the bottom of that pane. For example, an apartment with balconies and full height glazing of 2700mm high - the balcony must protrude out from the building a minimum of 1800mm to be considered as adequate protection.

Commonly, most large commercial builds have a contract clause that states the individual preference of requiring all monolithic toughened glass to be heat soaked. In some cases, this also includes toughened laminate panes. While it is not a requirement of the NCC, it must be accounted for during the tendering process as heat soaking is an added process which is time consuming and an added expensive.

In many cases, toughened glass can be swapped for heat strengthened glass, such as the outer pane of a Double Glazed Unit (DGU). However, it is unlikely that balustrade glass can be changed from toughened or toughened laminate to heat strengthened or heat strengthened laminate due to the loads placed upon them.

---

### AGG NSW

140 Gilba Rd  
Girraween, NSW  
P: (02) 9896 0566  
F: (02) 9896 0190

### AGG VIC

81-83 Rushdale St  
Knoxfield, VIC  
P: (03) 9730 7400  
F: (03) 9730 7488

### AGG TAS

39 South Arm Rd  
Rokeby, TAS  
P: (03) 6247 1625  
F: (03) 6247 6843

# Disclaimer

Australian Glass Group provides the information in this document on the basis that:

1. The information in this bulletin provided is not advice, guidance or recommendations. It is of a general nature only and cannot and does not substitute for obtaining independent specific or complete advice. The reader or user must make their own independent enquiry before action on any information required.
2. That the user of the website/bulletin in reading the material is acknowledging that they are accepting that Australian Glass Group has;
  - A. No liability at law in any manner whatsoever for the information as provided;
  - B. That there is no express or implied warrantee of any kind as to performance warranties or merchantable warranties or fitness for purpose or any other warrantee implied, expressed or otherwise at law, and;
  - C. That the user of this information provided must undertake their own due diligence and independent enquiry and advice.
3. All users are deemed to acknowledge that there shall be no transfer of any liability and/or responsibility to Australian Glass Group whether in part or in full as a result of any consequences from the use of the information whether or not Australian Glass Group is made aware of such intentions.
4. It is the responsibility of the reader to ensure they are viewing the most up to date version of this document, which can be obtained from our website [www.agg.com.au](http://www.agg.com.au) or by emailing [info@agg.com.au](mailto:info@agg.com.au)

## AGG NSW

140 Gilba Rd  
Girraween, NSW  
P: (02) 9896 0566  
F: (02) 9896 0190

## AGG VIC

81-83 Rushdale St  
Knoxfield, VIC  
P: (03) 9730 7400  
F: (03) 9730 7488

## AGG TAS

39 South Arm Rd  
Rokeby, TAS  
P: (03) 6247 1625  
F: (03) 6247 6843

