



Tough Glass

Acceptable Quality Guide

Updated 19th August 2024

Glass is handled/moved numerous times during the different manufacturing processes, and occasionally the glass may incur minor damage. To set a standard for glass quality, an Australian Standard (AS4667:2000 "Quality requirements for cut to size and processed glass") was published as a flat glass industry guide to acceptable quality. In this Australian Standard there are tables and charts showing the maximum allowable imperfections for processed and cut to size glass. The following is a guide to the acceptable quality that can be expected from Tough Glass. Inspecting the glass should be carried out as early as possible.

GENERAL

- Blemish/seeds up to 1mm in diameter are acceptable.
- Scratches/marks not visible from 1.5m away whilst looking through the panel are acceptable.
- Minor wheel/swirl marks on polish edges are acceptable.
- Pitt marks on toughened panels are acceptable if they are not noticeable from 1.5m away whilst looking through the panel.
- Chips no more than 5mm into the panel edge are acceptable only when the panel will be framed.
- *Bowed panels – 3mm up to 2000mm or less bows in any panel are acceptable.
- **Surface distortion shall not be measured within a 150mm band from the edge of the glass panel, as distortion in this area is a result of localized warpage.
- Panel size variance +/- 2mm. is acceptable, unless exact sizes are requested, and panels are processed on CNC's.

SHOWERS

- Blemish/seeds up to 1mm in diameter are acceptable.
- Scratches/marks not visible from 1.5m away whilst looking through the panel are acceptable.
- Minor wheel/swirl marks on polish edges are acceptable.
- Pitt marks on toughened panels are acceptable if they are not noticeable from 1.5m away whilst looking through the panel.
- Chips no more than 5mm into the panel edge are acceptable only when the panel will be framed.
- *Bowed panels – 3mm up to 2000mm or less bows in any panel are acceptable.
- Panel size variance +/- 2mm. is acceptable, unless exact sizes are requested, and panels are processed on CNC's.



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SPLASHBACKS

- Blemish/seeds up to 1mm in diameter are acceptable.
- Scratches/marks not visible from an arm's length away whilst looking at the panel are acceptable.
- Minor wheel/swirl marks on polish edges are acceptable
- Pitt marks on toughened panels are acceptable if they are not noticeable from 1.5m away whilst looking through the panel.
- Chips no more than 3mm into the panel edge are acceptable if edge will be covered by a return panel.
- **Surface distortion shall not be measured within a 150mm band from the edge of the glass panel, as distortion in this area is a result of localized warpage.
- Panel size variance + or - 2mm. is acceptable, unless exact sizes are requested, and panels are processed on CNC's.

REFLECTIVE SPLASHBACKS

- See respective product supplier inspection guidelines and procedures in conjunction with the below, found: <https://www.toughglass.com.au/resources/product-disclaimers/>
- Blemish/seeds up to 2mm in diameter are acceptable.
- Minor wheel/swirl marks on polish edges are acceptable
- Pitt marks on toughened panels are acceptable if they are not noticeable from 1.5m away whilst looking through the panel.
- Chips no more than 3mm into the panel edge are acceptable if edge will be covered by a return panel.
- **Surface distortion shall not be measured within a 150mm band from the edge of the glass panel, as distortion in this area is a result of localized warpage.
- Distortion around cut outs and GPOs are acceptable on toughened reflect products. In conjunction with product disclaimer found: <https://www.toughglass.com.au/resources/product-disclaimers/>
- Panel size variance + or - 2mm. is acceptable, unless exact sizes are requested, and panels are processed on CNC's.

PAINTED SPLASHBACKS

- Blemish/seeds up to 2mm in diameter are acceptable.
- Scratches/marks not visible from an arm's length away whilst looking at the panel are acceptable.
- Minor wheel/swirl marks on polish edges are acceptable.
- Panel size variance +/- 2mm. is acceptable, unless exact sizes are requested, and panels are processed on CNC's.



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MIRRORS

- Blemish/seeds up to 0.5mm in diameter are acceptable.
- Scratches/marks not visible from an arm's length away whilst looking at the panel are acceptable.
- Minor wheel/swirl marks on polish edges are acceptable.
- Panel size variance +/- 2mm. is acceptable, unless exact sizes are requested, and panels are processed on CNC's.

ADDITIONAL INFORMATION

The obtusiveness of blemishes/scratches is judged by looking through the glass, not at it (subject to splashbacks and mirrors), under natural daylight but not looking directly towards the sun. It must be understood that the glass used in single and double glazing is a processed glass, blemishes are to be expected.

Toughened glass may show visual distortions. These distortions may be accentuated by reflections in double glazing. Such surface colorations and patterns do not indicate a change in physical performance.

Laminated glass may have a few more blemishes due to it being made of several layers.

Low emissivity coating may produce transient visual effects. In some lighting conditions the coating may look like a transparent film or produce a haze, i.e., a cloudy look to the surface. When light coloured objects such as net curtains are placed close to the glass, they may appear slightly darker.

NOTES:

* Flatness measurements shall be checked against a straightedge with the panel standing within 5° of vertical and measurements taken horizontally.

** The Manufacturer and the customer shall agree on the following

- a. The tolerances for surface distortion
- b. The method of measurement and the magnitude of the distortion.

Glass surface distortion is a normal attribute of heat-treated glass and varies between manufactures. This distortion becomes more pronounced as the angle of view becomes more acute.