



GLASSLINES INSTALLATION ADVICE/GUIDE

Glasslines NZ Ltd has rigorous internal controls, frequent external audits and testing procedures to ensure all insulated glass units (IGU) are compatible with New Zealand conditions. However, IGUs are a component of a glazing system and need to be installed and cared for correctly to obtain the best lifespan and performance. Please note any violation of these standards will void any warranty offered by Glasslines NZ Ltd.

It is also recommended that IGUs be installed by suitably trained and experienced tradespeople.

Relevant Standards & Guides:

1. AS/NZS 4666
2. WAGNZ IGU Cleaning and Maintenance
3. WAGNZ Vertical Glazing of IGU Guide.

Storage (pre-glazing)

All Glasslines units have a hot melt secondary seal, and they must NOT be stored outside under the sun and rain, as UV light causes seal degradation. IGUs made by Glasslines NZ Ltd are not designed to have the edges of the panels exposed to the environment. Wrapping plastic over glass for weather protection is not advised as it can allow condensation to accumulate, resulting in damage to the glass and the unit seal.

Transport.

Insulating Glass Units must be transported and stored so that both panes of glass are equally supported. Units should be stored vertically or on a 90° angle rack set at 4° -7° from the vertical.

If IGUs are transported or installed at a location with over 800m difference in altitude, capillary tubes may be required. Please get in touch with Glasslines NZ Ltd for further information.

Installation Considerations.

Drainage.

- The edges of IGUs should not have prolonged exposure to moisture.
- A minimum of three holes along the bottom sill is required for a drained joinery system. This will ensure all water can drain between setting blocks. The holes should be a minimum of 10mm in diameter and at a maximum of 800mm centres.
- The unit's top and sides should be free from static or running water.
- Homeowners should take care to ensure debris doesn't block drainage holes.
- For non-drained systems (wet-glazed), internal and external seals are required to eliminate water entry. Water that passes through these seals will cause the failure of the IGU and void any warranties.

Setting Block.

- Setting blocks must be made from a rot-proof material that is load-bearing, non-absorbant and compatible with Glasslines NZ Ltd IGU system and materials. Setting blocks must have a Shore A Hardness of 80-90.
- The minimum width of the block **must be 3mm larger than the overall unit width**. The glass must support the weight of the unit. The primary and secondary seal is not designed to hold weight.
- The minimum height of the block must exceed 6mm. This gap prevents moisture from bridging the gap between the frame and sealant.
- For detailed setting block locations, please reference AS/NZ 4666.
 - Setting blocks need to be 25mm long for every 1m² of glass area, with a minimum length of 50mm.
 - Settling blocks must not block drainage holes.





Glazing Rubbers.

- Glazing rubbers must be of sufficient length to avoid shrinkage over time. Short glazing rubbers will allow debris to accumulate inside the frame and block drainage holes.

Other Materials.

If the glazing system requires contact with any material and Glasslines NZ Ltd edge seal, this must be checked for compatibility. Incompatible glazing materials can cause the failure of the seal.

Protection of the edge seal.

Glasslines NZ Ltd uses quality materials for primary and secondary seals. These components are not designed for constant exposure to the elements and UV light.

The edge seal (12mm of cover) must be protected inside the rebate or by the glazing bead.

Other Considerations.

Thermal Stress.

The glass will absorb solar radiation (heat). From this heat, the glass will expand and contract. The panel will expand inconsistently if it is subject to different heat profiles or areas (i.e., partially shaded glass). This expansion can cause a thermal fracture. Other factors, including shadows, blinds, drapes, heaters, and backup walls, cause thermal stress.

Laminated panes are more susceptible to thermal fracture as edges are prone to damage and are more difficult to cut without causing stepped and damaged edges. Blinds, partial shading on the glass, and light-coloured metal window frames further aggravate this phenomenon.

Where annealed glass is at risk of thermal fracture, heat-strengthened or toughened glass should be used.

Glazing Orientation.

Please reference the table on glasslines.co.nz/resources

IGU Cleaning and Maintenance.

- Regularly check that draining holes are not blocked with debris and allow moisture to drain away from the frame.
- Regularly check any glazing rubbers are the correct length and have not shrunk.
- Check gaskets or flashings are still present and performing.
- For wet-sealed units – regularly check the seal has not been compromised, and moisture is still prevented from entering the glazing cavity.

Cleaning of the Glass:

It is recommended to clean your DGUs every three months to stop the build-up of contaminants on the surface of the glass; for commercial applications, this may require more frequent cleaning.

- Rinse the glass with clean water to remove any dirt or debris on the glass's surface.
- Use an approved recommended glass cleaner (Glasscorp - GCGC, GC5, GC20), spray the surface of the glass with the approved glass cleaner all over & use a lint-free cloth in a circular motion to wash the glass, ensuring coverage of the whole area.
- Remove all contaminants & excess cleaner, ensuring no water droplets are left on the glass as these droplets may stain the glass.

Important Notes to Care for the Glass:

- Do not use steel wool, metal scrapers, or any thinners to clean the surface of the glass.
- Do not use any products containing hydrofluoric acid, phosphoric acid, fluorine derivatives or products with a high acidic or alkaline content, as this will likely damage the surface of the glass.
- Do not wash/clean DGUs in direct sunlight.
- Do not apply hot water directly to cold glass or freezing water to hot glass, which may cause the glass to fracture thermally.
- Special care needs to be taken when cleaning toughened glass.

