

Handling, Storage and Installation Guidelines

The following offers a general guide on installing Insulated Glass Units ("IGUs"). IGUs must be glazed in accordance with these recommendations.

Handling & Storage:

IGUs must be handled with care and safety. We recommend that you:

- stack the IGUs on edge in a vertical position at 90° to its base support, with cushioning between floor and edges;
- do not stack more than six (6) deep without intermediate support for each stack;
- store in a dry environment away from direct sunlight. Prolonged exposure to dampness may affect IGU seals and lead to product breakdown;
- do not cover with plastic, as condensation may damage edge seals;
- never store or transport horizontally;
- carefully remove all labels after glazing;
- do not damage edges in any way before or during installation. Even minor local shelling may increase risk of glass breakage;
- never attempt to nip or grind edges, as this can damage the seals and lead to glass breakage;
- ensure damaged IGUs are not glazed;
- protect IGUs during building works. Guard against contact with wet cement or other alkaline materials released during rain from concrete or masonry, as this can cause staining;
- protect from hard foreign objects, metals, abrasives, welding and grinding splatter, sandblasting, caustic plaster materials and excessive temperatures; and
- please let us know if glazing will take place in high altitude locations, as the units may need to be fitted with pressure equalisation tubes.

Installation:

Frames:

Frames, beads and fixings must be adequate to support and restrain IGUs, withstand wind loadings, IGU weight and building movements.

We recommend that you:

- ensure all glass framing members are plumb and square;
- ensure the width of the frame rebate is sufficient to accommodate the thickness of the IGU, plus face clearance plus bead;
- never force units into the frame;
- ensure glazing rebates and drainage weep holes are free from debris and obstructions;
- ensure glazing surfaces are free of moisture, oil, dirt, grease and other contaminant material; and
- ensure that screws, bolts or other obstructions do not protrude into the glazing channel.

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Clearance:

IGUs must have adequate edge clearance for the full thickness of the unit. We recommend that:

- setting blocks must allow drainage to pass to weep holes;
- any point loading must be prevented;
- edge clearance should be not less than 10mm, and face clearance not less than 5mm; and
- edge cover should be a minimum of 12mm.

Sealing / Drainage:

To ensure proper performance at all times, all external junctions of glass and frame must be effectively sealed against penetration of weather. We recommend that you:

- install the IGU so that lodgement of water in the frame is prevented in the proximity of the edge, as prolonged contact with moisture may lead to seal failure;
- ensure rebates are well drained with a minimum of 2 weep holes per sill, each 7mm x 3mm at maximum 500mm centres;
- ensure there are no nails or similar material within the rebate; and
- ensure that any timber or concrete frames in contact with glazing compounds are completely sealed with an appropriate sealer.

Setting Blocks:

IGUs must be centrally located in the frame, with the bottom edge resting on two full-width setting blocks. We recommend that these setting blocks:

- must be at least the full width of the unit, plus 3mm greater than the unit thickness;
- when pushed hard against the back of the rebate, must fully support the bottom edge of the unit across its full width;
- must use minimum 3mm thick (for residential applications) and 6mm thick (for commercial applications) non-absorbent, resilient neoprene, santoprene or EPDM, 85 \pm 5 durometer specification;
- shall be not less than 30mm per square metre of glass area in length;
- must be compatible with the IGU edge seal in terms of composition;
- should (with the exception of pivot sashes) be placed one quarter of the frame length in from each corner, or 150mm from corners, whichever is greater; and
- should (for pivot sashes) be placed over the pivot point.

Environmental Conditions:

We recommend that you:

- protect IGU edge seals from UV rays, which may break down the compounds contained within the seals; and
- do not expose an IGU to chemical fumes or gases other than those present in normal clean atmospheric air, or to radiation of any type other than normal sunlight.

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Thermal Stress:

We recommend that you:

- always glaze tinted or reflective glass in an IGU applied to the outside of a building;
- have regard to the fact that the use of tinted or reflective glass leads to greater absorption of solar radiant heat. This results in higher thermal stress, which may lead to fracture. Where a significant risk exists, heat strengthened or toughened glass may be required; and
- ensure no plastic film, sign or label or opaque material or similar device is applied to any large areas on the surface of the glass. These may absorb heat, setting up thermal stresses which may result in the cracking or shattering of the glass.

This information is issued as a general guide only, and should not be treated as a substitute for detailed technical advice. To the best of our knowledge, the information provided is correct and accurate at the time of printing, however JELD-WEN Glass does not represent or warrant its correctness or accuracy.

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