

Installation Details

Weatherproofing of Windows

At the corners of the outer frame where the aluminium reveal fins do not meet up, the corners are to be factory tape sealed (waterproof tape) to protect the timber reveals. Failure to do so may result in reveals being wet at the corners if water runs down the reveal fin of the window.

Flashings

Most reports of leaking windows can often be attributed to poor installation of the window and/or an improper application of flashing around the window.

For most installations of windows into residential housing, we recommend that flashings are always to be used at the jambs and sill of the window frame.

Head flashing is also recommended:

- where there are no eaves at the head of the window.
- where brickwork is above the head of the window (two storey houses or at gable ends).
- where there are weatherboards above the head of the window.

Failure to use head flashings will allow any water that enters the cavity above to wet the window reveal at the head.

Windows installed into Concrete Blockwork or Brickwork

Aluminium windows must not be installed in any moist environment which is in contact with bricks or mortar. This includes brickwork or concrete block construction.

The moist environment may be caused by constant damp brickwork or even garden sprinklers constantly wetting the aluminium frame and the adjoining brick wall. Also aluminium doors located close to swimming pools may risk potential corrosion problems.

Potential corrosion reaction

When aluminium windows have close contact between bricks or concrete there is a risk of a corrosion reaction to the aluminium. Long term exposure to moisture in this environment will increase the rate of corrosion. Powdercoating of the aluminium does not significantly reduce the resistance to this corrosion.

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This type of corrosion is known as crevice corrosion which is due to high levels of chlorine, moisture and crevice sites into which oxygen can diffuse only slowly.

Ensure that construction techniques minimise or eliminate contact between aluminium and bricks or mortar. Concrete should be sealed to maintain a dry perimeter around the window frame. A flashing membrane could be used to isolate the aluminium frame from the brickwork. Use of a bitumen based coating around the opening would be sufficient to keep the aluminium from remaining damp.

Use sealants to fill gaps, and to reduce the exposure of the aluminium metal to moisture. Take measures to reduce the amount of chlorine available in the environment.

Windows into Hardiplank Clad Buildings

Reports of leaking windows can often be attributed to poor installation methods or sealing around the window frame. Each type of building construction will have its particular installation and sealing methods to achieve a satisfactory weatherproof installation of the window.

Evidence of an unsatisfactory installation may show up as damp or wet timber reveals around the perimeter of the window.

At the corners of the outer frame where the aluminium reveal fins do not meet up the corners of the reveal fins are to be tape sealed (waterproof tape) to protect the timber reveals.

As with all installations the frames are to be square, jambs plumb and sills to be level. The recommended installation clearances are to be maintained around the perimeter of the window frame. Window to be installed and fixed into the opening prior to the wall being clad.

The window must be flashed at the head. This can be a head capping that sits over the outside face of the head and returns back to the reveal fin and runs up past the reveal fin to the timber frame member above the window.

Sill flashing is recommended and should be fitted between the reveal fin and the timber reveal. All flashings to extend beyond the width of the window.

Once the wall has been clad the full perimeter of the window frame must be sealed between the window frame and the cladding. Any potential for water leakage will be at the window corners and care needs to be taken that these areas are properly sealed.

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Windows on site before installation:

- Lift carefully from trucks, do not use slings.
- When handling or transporting, carry in a vertical position with sill at bottom. Sashes should be closed and locked.
- Avoid knocks and abrasions.
- Stack carefully on edge to avoid damage to finish.
- Stack in a dry place and cover to protect against paint, dust, weather, etc.
- Ensure that there is sufficient clearance around perimeter of the frame before attempting to install window.
- Ensure that the aluminium frame is insulated from contact with other metals to avoid potential future corrosion of the aluminium. This could be by bitumen coating any steelwork around the window or the application of flashing membranes.
- Do not distort frames by forcing them into opening.
- Keep sashes closed while you are installing the frame.
- Aluminium windows and doors are not load bearing, ensure adequate clearance above head of window.
- Allow 10mm clearance from underside of sill to top of sill brick or tile to allow for building settlement.
- **SILL MUST BE STRAIGHT AND LEVEL.** Plumb jambs in both directions. Pack frame at sill and jambs only. Frame must be square and out of twist (essential for smooth operation of sashes). Check that diagonal measurements are equal.
- **DO NOT PACK HEAD.**
- Ensure that flashings are correctly fitted.
- Do not stand on, or place any loads on the sills or any other part of the frame. Do not use as support for scaffolding or slide material through the frames.
- Before inserting or operating sliding panels, tracks should be brushed thoroughly to remove any and all dirt, cement, etc.

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After the window has been installed:

- Protect windows and doors from damage.
- If plastic wrap is provided **DO NOT REMOVE** until brickwork is complete.
- Remove wet cement mortar, paint, acids and other chemicals as they occur – **WASH OFF IMMEDIATELY.**
- Use soft cloths when cleaning to avoid scratching the surface.
- Do not scrape trowels or any other tools on frames.
- When the job is complete, clean the window with warm soapy water or mild detergent and rinse clean with water.
- Ensure that drainage slots have not been blocked.

More Information

For more information regarding installation refer to:

- AGWA GUIDE TO RESIDENTIAL INSTALLATION
- AGWA WINDOW AND DOOR FIXING GUIDE