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Flashing openings in masonry veneer

Correctly flashing openings in masonry veneer is the first step to ensuring weathertightness.

MASONRY VENEER comprises about a third of the domestic external cladding market. With its common usage, it is important to understand the specific requirements for flashing openings in masonry veneer.

Flashings to openings generally

Openings in the timber or steel wall framing must have the following:

- Flexible wall underlay cut and dressed into the opening on all sides (or, for proprietary RAB systems, follow the specific installation details).
- Flexible flashing tape applied to the top corners of window and door openings and extended 100 mm from the corners both horizontally and vertically (see Figure 1).
- Flexible flashing tape applied across the full opening width of the sill and extended vertically 100 mm up the trimming studs under the jamb battens (see Figure 1).
- Flexible head flashing across the opening, bedded into the mortar joint above the opening and extended 200 mm beyond the jamb line on both sides. A layer of wall underlay or flexible flashing tape must be lapped over the flexible flashing (see Figures 2 and 3).
- Flexible sill flashing across the sill, folded into the opening and down the face of the wall underlay and over a tilting fillet to provide a kick-out to give a drip edge. The flashing must

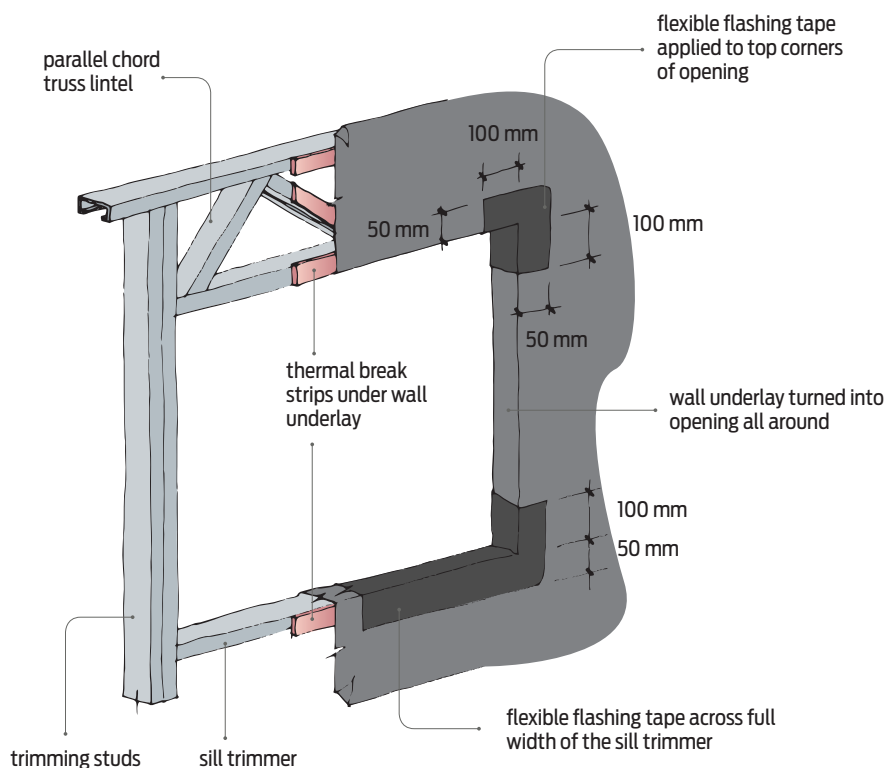


Figure 1

Flexible wall underlay and flexible flashing tape turned into a steel-framed opening with thermal break strips.

be extended 200 mm beyond the jamb line on both sides (see Figures 4 and 5).

- Flexible jamb flashings attached to the window jamb section and fixed on both sides of the opening for the full height of the opening, clout-fixed over the wall underlay so

moisture is directed to the outside face of the cladding (see Figures 4 and 5).

Rigid head flashing

BRANZ also recommends installing a rigid head flashing with a minimum 15° slope and stop-ends abutting the brick jambs for both aluminium ➤

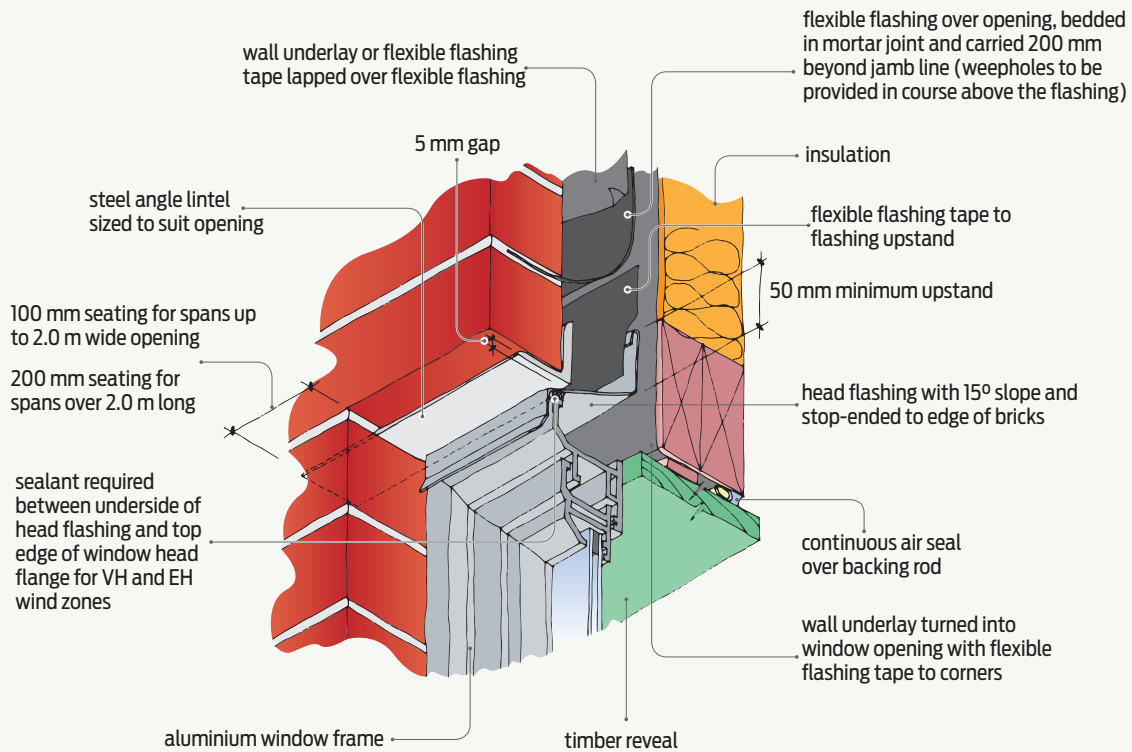


Figure 2 Aluminium window installation – head detail.

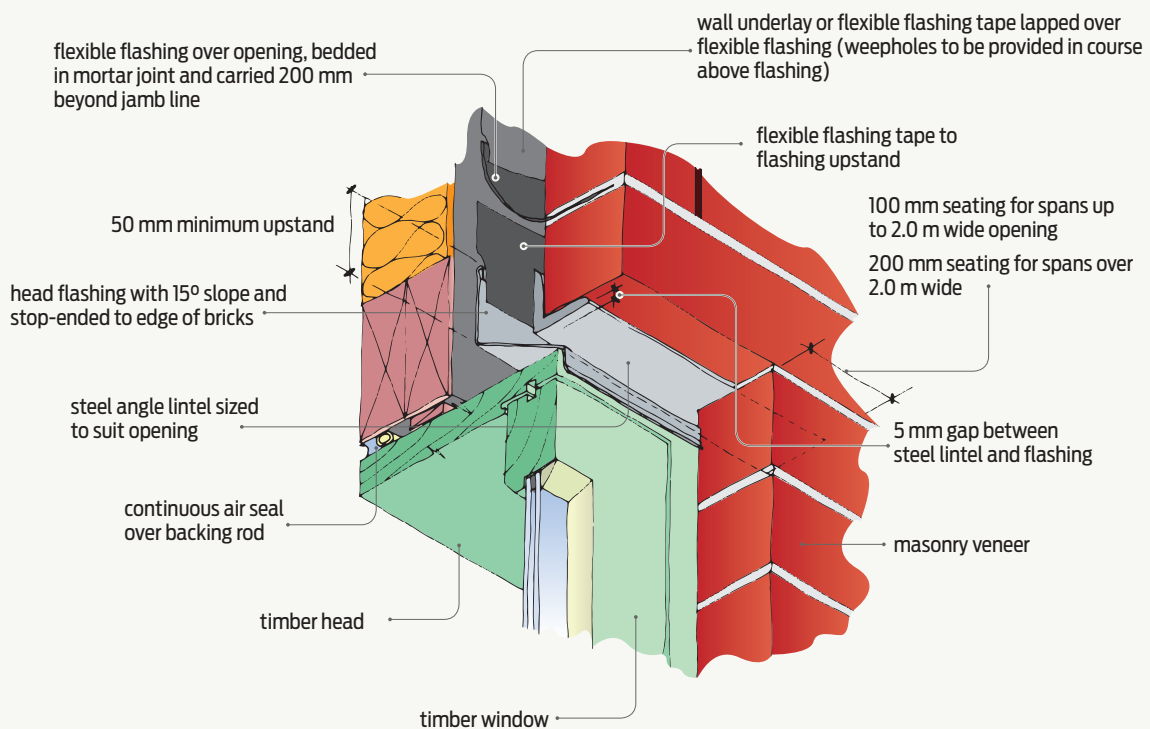


Figure 3 Timber window installation – head detail.

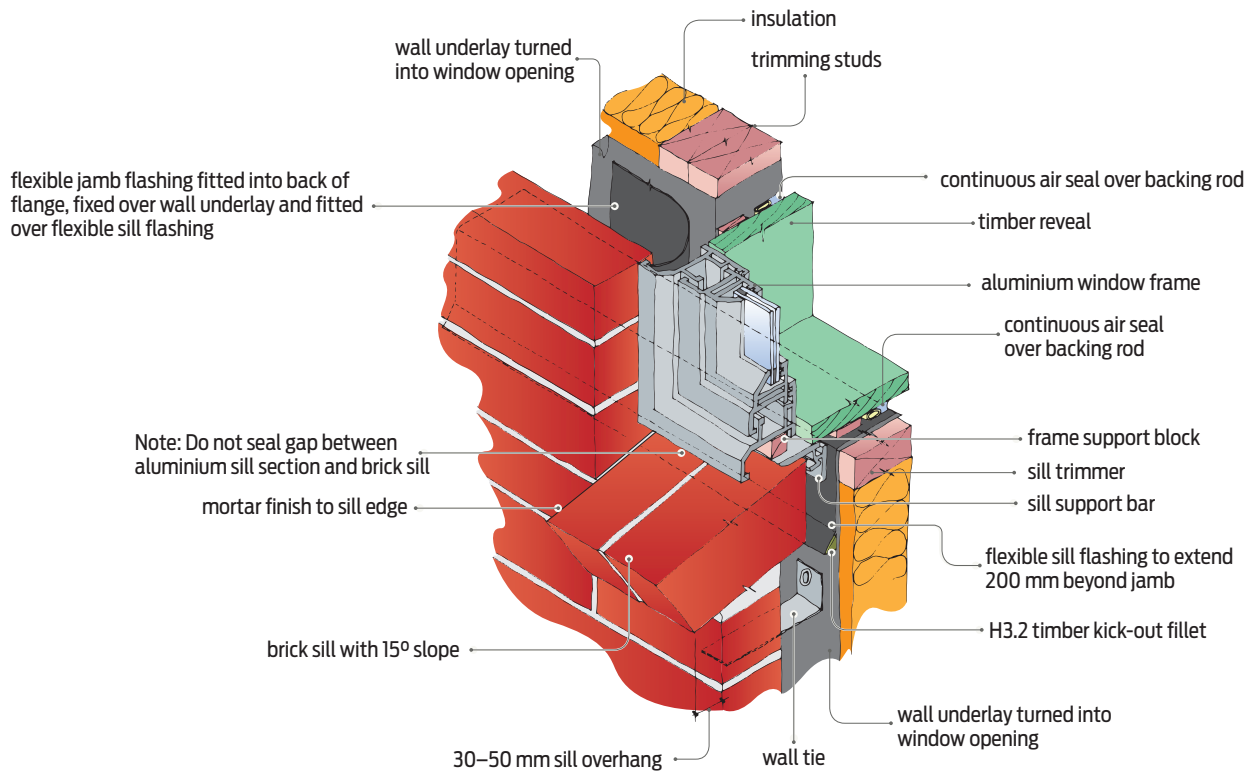


Figure 4 Aluminium window installation – jamb and sill detail.

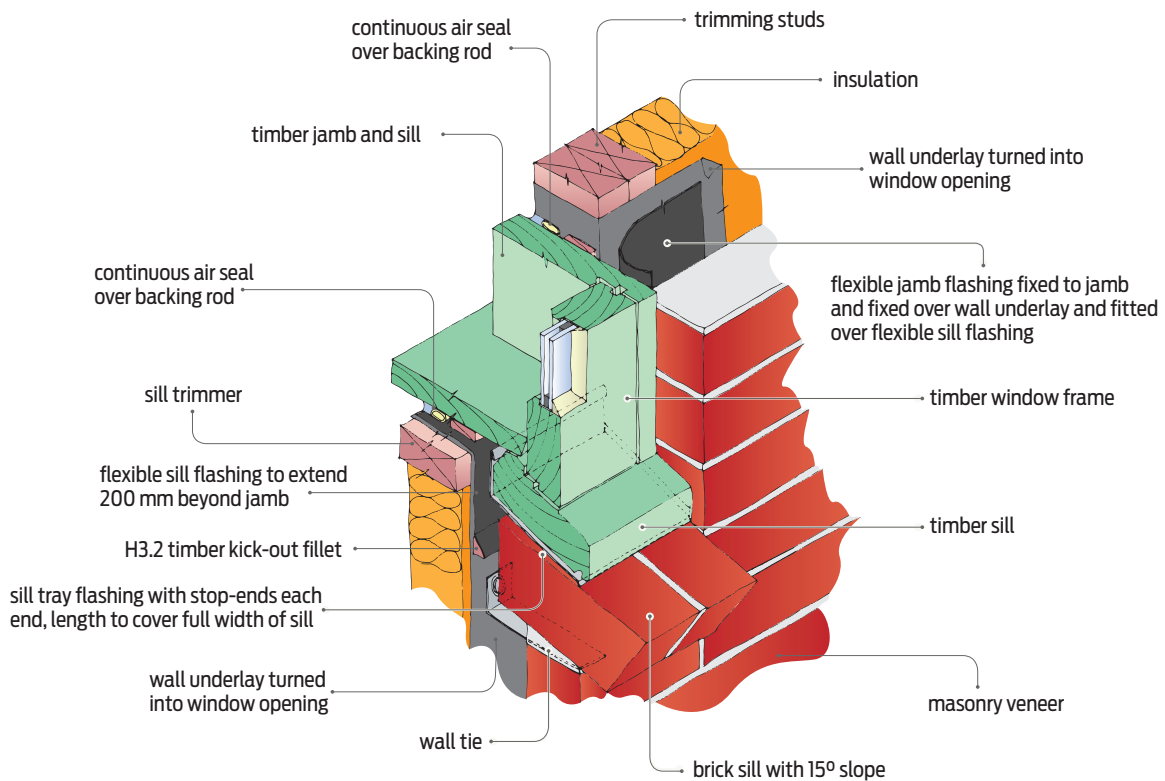


Figure 5 Timber window installation – jamb and sill detail.

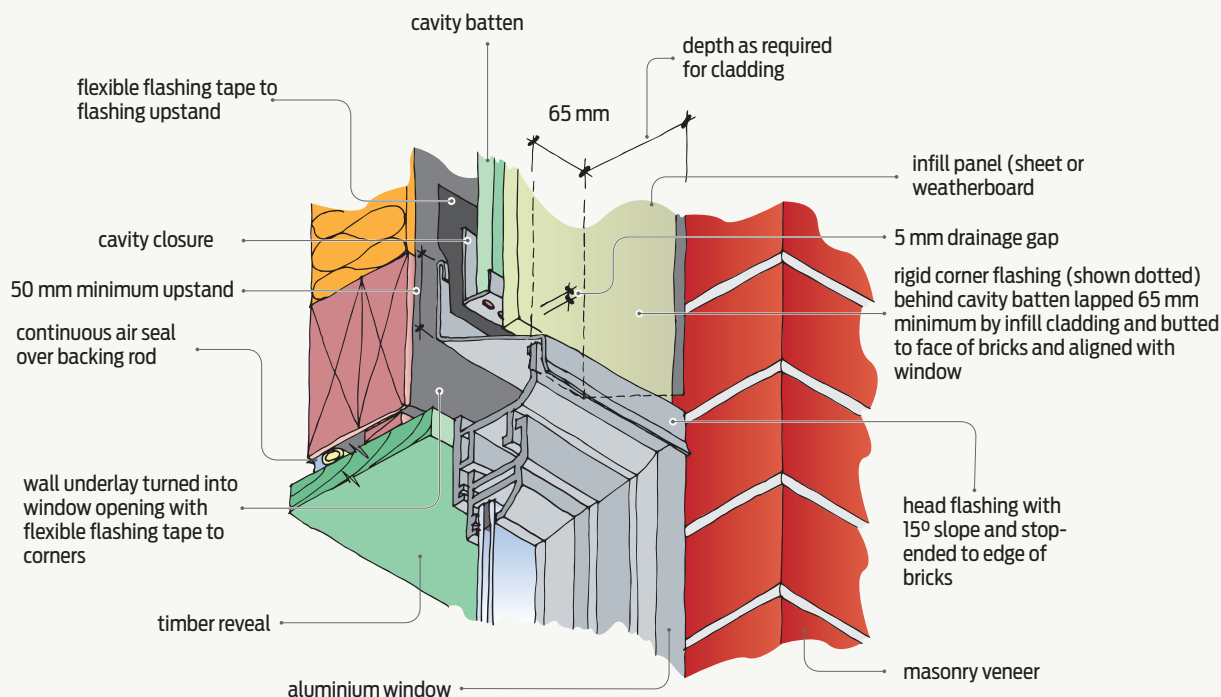


Figure 6 Aluminium window installation – head detail with infill panel.

and timber window frames. Note that E2/AS1 does not require a rigid head flashing for aluminium windows.

For very high (VH) and extra high (EH) wind zones, sealant must be applied between the underside of the head flashing and the top edge of the window head flange (see Figure 2).

Infill panel above opening

Where a window is installed with an infill panel instead of bricks above the opening, rigid corner flashings for the full height of the panel must be installed behind the cavity battens. They must be lapped at least 65 mm by the panel and butted to the face of the bricks (see Figure 6).

Head and sill flashings

Head and sill flashings to masonry veneer openings must be either:

- 1.5 mm butyl rubber
- 2-ply asphaltic pliable waterproofing membrane
- 0.5 mm minimum pliable polyethylene.

Jamb flashings

Jamb flashings must be either:

- 2-ply asphaltic pliable waterproofing membrane
- 0.5 mm minimum pliable polyethylene.

The flashings must direct any water that gets past the external cladding to the back face of the masonry veneer.

Window flanges

Window flanges must be forward of the back face of the veneer by 10 mm minimum.

Continuous flexible air seals must be installed over a PEF backing rod between the reveals and window and door openings.

Meter box

Openings for meter boxes less than 500 mm wide do not require a lintel or head flashing. However, the meter box must be sealed to the wall underlay and separated from direct contact with the masonry veneer or mortar with flexible flashing tape.

Sill requirements

Sill bricks or tiles should have a 15° minimum slope to the outside and an overhang to provide protection for ventilation slots if required below the window.

A gap of at least 20 mm should be left between the back of the sill bricks and the wall underlay and framing. This gap is to prevent mortar getting trapped and/or water bridging the gap.

Door sill openings

Door sill openings must have:

- a sill tray flashing that is the full width of the opening and has a depth that extends past the back of the aluminium joinery profile
- an 8 mm minimum upstand and sloped end dams
- a 5 mm minimum air gap behind the downturn.

Window sill openings

Specific requirements for window sill openings include:

- aluminium window sills must have a sill support bar where the window is wider than 600 mm (see Figure 4)
- the flexible sill flashing must have a drip edge created using a 20 mm H3.2 timber kick-out fillet
- window sill flanges must not be sealed at the sill edge.

BRANZ also recommends installing a rigid sill tray flashing for timber windows. The sill tray should be the full width of the opening, have stop-ends at each end and be sloped to suit the timber sill (see Figure 5). Note that aluminium windows do not require a sill tray. ◀