



DRAINED CAVITY WINDOW INSTALLATION

Recent changes to E2/AS1 have slightly altered the construction requirements for window installation in drained cavity construction. What do designers, builders and window installers need to know?

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A amendment 5 in 2011 to Acceptable Solution E2/AS1 *External moisture* included changes to both direct-fix and drained cavity construction window installation requirements. The changes to direct-fix window installation were described in *Build* 128 February/March 2012, pages 16–17.

Sill support bar

The most significant change for drained cavity window installation requires the fitting of a sill support bar to all doors and windows over 600 mm wide.

The sill support bar must allow any water that gets past the external cladding to drain away, and it must maintain at least 1,000 mm² clear opening per metre length of

window between the drainage cavity and the window or door trim cavity to allow air passage. To do this, sill support bars incorporate drainage and ventilation openings.

Sill support bars must end within 100 mm of the trimming stud.

Sill support bars must also comply with BRANZ Evaluation Method EM6, Verification Method E2/VM1 and Acceptable Solution B2/AS1.

Additionally, manufacturers must provide information about the support bar loading limits.

Jamb flange gap

For fibre-cement sheet or ply claddings, E2/AS1 now requires a 5 mm gap for sealant to be left between the jamb flange and cladding.

Other cavity construction changes

There are several other changes:

- In extra high (EH) wind zone situations, flashing upstand dimensions must be 25 mm more than the dimensions stated in E2/AS1 section 4.5.1 or Table 7, and all flashings must have a hook or a hem.
- In very high (VH) and extra high (EH) wind zones, sealant must be inserted between the head flashing and the window head flange as shown in E2/AS1 Figure 71(c).
- The minimum cover to the cladding for window sill flanges has been reduced to 8 mm, although the minimum jamb flange cover remains at 10 mm.
- Factory-fitted soakers are required behind the sill/jamb mitred frame joints of aluminium windows and doors. ◀

SEQUENCE TO INSTALL A WINDOW INTO CLADDING WITH CAVITY

STEP 1

Install flexible wall underlay across the full window opening. Make diagonal cuts, then fold the underlay round the opening and secure. For rigid underlay, trim to opening.

STEP 2

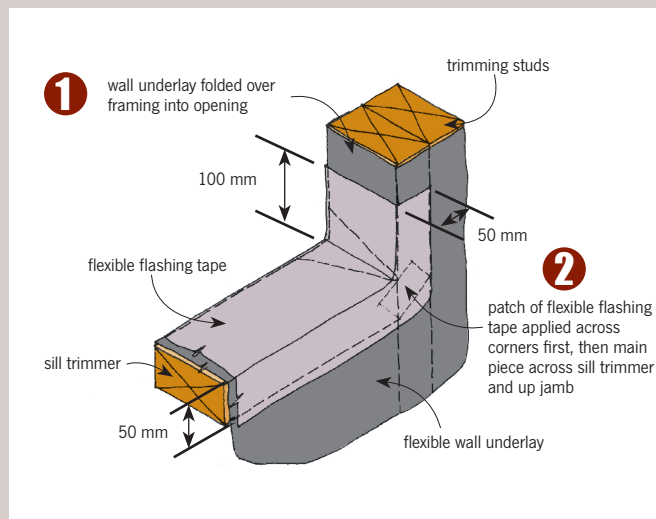
Install a small patch of flexible flashing tape across corners. Then install flexible flashing tape in the corners and:

- at the top corners 100 mm along the head and down the jamb and turned out 50 mm over the face of the wall
- across the sill trimmer with 100 mm return up the jambs and turned out 50 mm over the face of the wall.

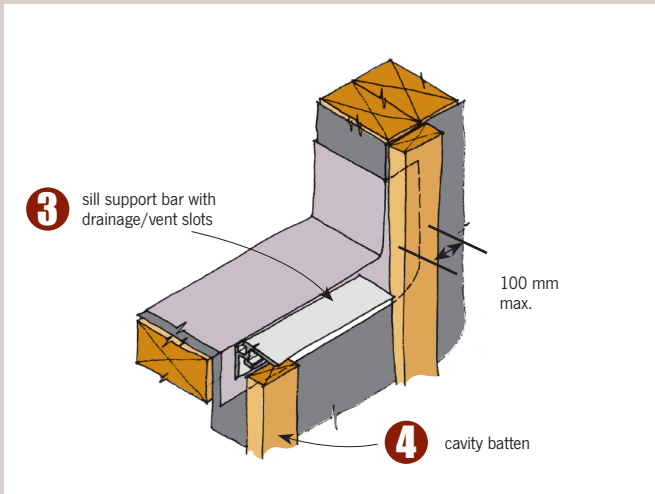
If rigid underlay is used, tape the whole opening.

STEP 3

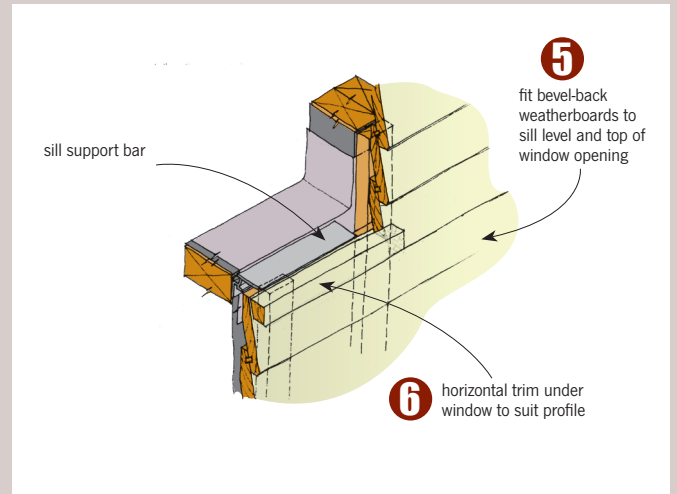
Install the sill support bar.



Steps 1–2: Install wall underlay and flexible flashing tape.

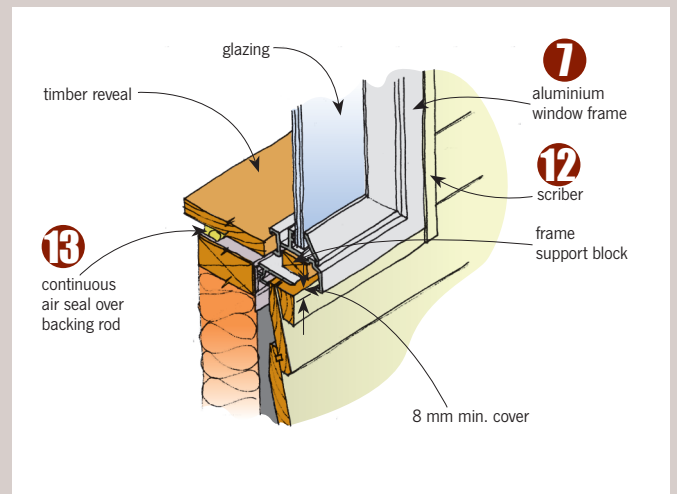


Steps 3-4: Install support bar and cavity battens.

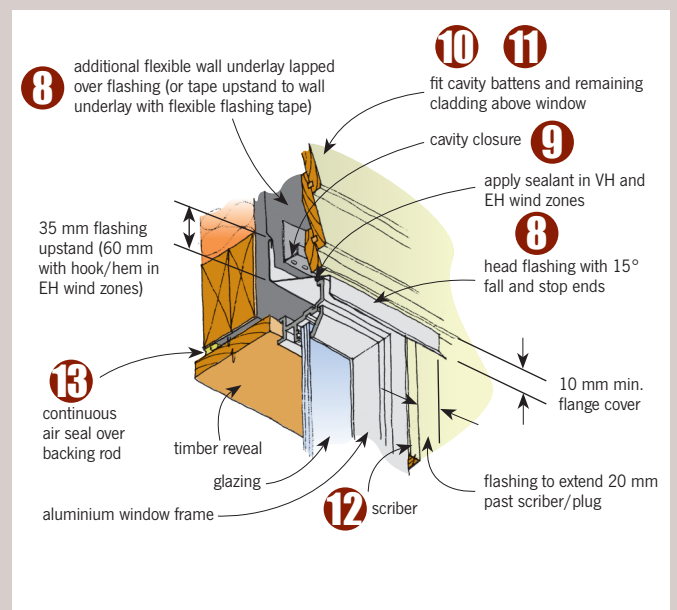


Steps 5-6: Fix cladding to sill level and top of window.

- STEP 4** Fix cavity battens beside and below the window opening.
- STEP 5** Fix cladding over cavity battens below window and to side of opening.
- STEP 6** Fix horizontal trim under window to suit profile. Notch edge over cladding as required.
- STEP 7** Install windows to meet the minimum flange cover – 8 mm at sill, 10 mm at jamb. No gap is required at jambs or sills unless fibre-cement sheet or ply cladding.
- STEP 8** Fit head flashing and cover with either additional wall underlay extended up to next lap or flashing tape for full length of the flashing. Apply sealant between head flashing and window head flange in very high (VH) and extra high (EH) wind zones before fitting flashing. Ensure head flashing is stop-ended.
- STEP 9** Fit cavity closure.
- STEP 10** Fit cavity battens above window opening.
- STEP 11** Fix the remaining cladding above the opening.
- STEP 12** Install scribes and plugs to suit weatherboard profile.
- STEP 13** Install air seal over backing rod around perimeter of the trim opening shortly before fixing interior linings.



Steps 7, 12 and 13: Install window and finish sill.



Step 8-12: Window head.