

builder'smate



GONE WITH THE WIND

The extra high wind zone in NZS 3604:2011 *Timber-framed buildings* allows houses to be built on blustery sites with wind speeds of up to 55 m/s. Acceptable Solution E2/AS1 can be used to design these houses, but it includes special requirements that builders need to be aware of.

Houses built in an extra high wind zone under E2/AS1 must have:

- rigid wall underlays with a flexible underlay under all claddings
- a cavity behind all claddings
- · bigger upstands and covers to flashings
- seals under head flashings
- roof underlay to all masonry tiles
- spans/spacings and eaves flashings on profiled metal roofs that comply.





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Rigid wall underlays

The mandatory rigid underlay ensures that the depth of the cavity is maintained. This allows drainage and drying even in high wind and helps protect the internal linings from excessive air pressure changes. >



a DeWalt 18v drill/driver + impact driver kit worth \$450!

INDUSTRY NEWS

Asbestos guidance for builders

If your work involves renovations, there is a good chance that, at some time or another, you'll come into contact with asbestos. Treat it seriously – exposure to asbestos is the single biggest cause of work-related death in New Zealand.

WorkSafe has just put out a guide especially for those facing asbestos on site: Working with or near asbestos – for builders. You can download it for free from www.worksafe.govt.nz. Search on the title. [There are guides for sparkies, plumbers and others too.]

\$300 million energy savings possible

A new report prepared for EECA says huge benefits could come from from greater energy efficiency in houses

The report says lighting and space heating account for more than half of household peak electricity demand. Using more LED lights, heat pumps and other technologies could reduce residential peak demand by 30%. The savings come from lower power generation costs, smaller sums needing to be invested in the system and carbon savings.



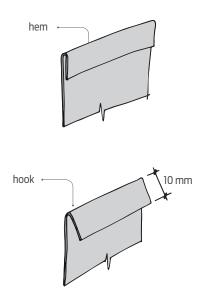


Figure 1. Hooks and hems to metal flashing edges

Direct-fixed corrugated metal profile cladding is regarded as a drained cavity system and must also be installed over a rigid wall underlay in extra high wind zones.

Under E2/AS1, rigid wall underlays must:

- be either 7 mm thick, H3 plywood or 6 mm fibre-cement sheet
- · have sheet edges fixed over solid framing
- have a flexible wall underlay fixed over the rigid sheet – proprietary rigid air barriers may not require this, but if used, they must be submitted for consent as an alternative method
- have the flexible wall underlay folded into opening reveals
- have cavity battens at maximum 600 mm centres
- be finished flush with the underside of the bottom plate or bearer.

A rigid wall underlay must also be installed to the external walls of unlined attached garages and gable end walls.

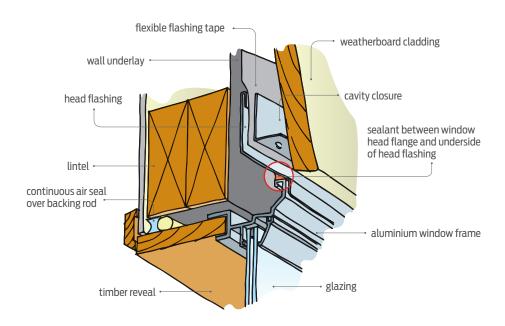


Figure 2. Sealant between head flange and head flashing.

Flashings

Hooks and hems (Figure 1) must be used on the edge of metal flashings in extra high wind zones. Flashing upstands must be 25 mm longer than in other zones.

E2/AS1 Table 7 sets out general flashing dimensions, including the requirements in an extra high wind zone (Table 1 here gives a brief summary).

Window heads

Window heads in extra high wind zones require a sealant between the underside of the metal head flashing and the top edge of the window head flange (Figure 2).

Roof underlay with masonry tiles

All masonry tiled roofs in extra high wind zones require roof underlay regardless of pitch.

Profiled metal roofing

E2/AS1 Tables 11–15 set out maximum spans and fixing patterns for profiled metal roofs, including the details for extra high wind zones.

Eaves flashings are required for all profiled metal roofs in extra high wind zones where roofs are below 10° and the eaves width is 100 mm or less.

A change of roof slope is not permitted in this wind zone.

BRANZ Maps shows wind zones. You can find this free online tool at:

www.branz.co.nz/branz-maps.

TABLE 1. FLASHING DIMENSIONS FOR SITUATION 3 – EXTRA HIGH WIND ZONES		
FLASHING TYPE/LOCATION	DESCRIPTION	MINIMUM DIMENSION FOR ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE
Barge flashing	Overlap to bargeboard and claddings	90 mm
Roof or deck to wall junction	Lap under cladding above	90 mm
Head flashing	Lap under cladding above	60 mm
Corner flashing	Vertical flashing at wall corners	75 × 75 mm
Inter-storey junction	Lap under cladding above and lap over cladding below	60 mm

WHAT A WASTE!

Construction and demolition waste makes up half of New Zealand's total waste, and each house construction generates approximately 3–5 tonnes of waste. Reducing it can put extra cash in your pocket and enhance your reputation. People who like your attitude could give you more work or recommend you to others.

A lot of waste reduction starts with the designer – for example, specifying modular sizes for sheet materials rather than odd sizes that produce a lot of off-cuts. But there is plenty that can be done on the building site too. Here are four tips to get you started.

Get the ordering right

- Order the right amount of materials not too much.
- When materials are delivered, check that they are in good condition.
- Store materials so they won't get damaged.
- Get unused materials back to the supplier as soon as you know you don't need them.

Do it once, do it well

Repair work often leads to waste. Keep the quality of work high and protect work that is finished so it isn't damaged by later work.

Make sure waste is sorted

In larger centres, there are companies that will collect your skips and bins and sort the waste

off site, which is convenient. But experience shows that less waste is produced if you can sort the waste on site. Have several bins with big labels on them. Reuse your off-cuts of timber and plasterboard where you can.

Use local recyclers

You can find a directory of recyclers at www. branz.co.nz/REBRI. Some suppliers offer recycling services – several paint companies take unused paint and containers back from trade painters, for example. Recyclable materials include:

- · untreated timber
- steel from reinforcing, wire and roofing
- aluminium
- · cardboard and paper
- concrete can be reduced to base course for driveways
- plastic (especially grades 1 and 2)
- bricks
- topsoil.

Let any subbies know what you are doing with waste on site so they can play their part.



build

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Competition





a DeWalt 18v drill/driver

+ impact driver kit worth \$450!

This amazing prize includes TWO power tools – a DeWalt compact drill/driver and a high-powered impact driver with great torque, 2 x 18V Li-ion batteries and storage box. Awesome!

The prize is provided courtesy of The ToolShed.

All you need to do is tell us the name of the mystery tool at the top of the page.

Email your answer to **buildersmate@ branz.co.nz**. Put "June Competition" in the subject line. The message should include your answer, your name, postal address and phone number. One entry per entrant please.

Don't forget to tell us where you picked up your copy of *Builder's Mate*! The winner will be the first correct entry drawn at 9 am on Friday 13 July 2018. Details will be posted on the BRANZ Ltd website [www.branz.nz] and in the next edition of *Builder's Mate* due out on 1 August 2018.



Winner of **Builder's Mate 89** is Barrie Sinclair of Invercargill. Barrie wins a Makita Bluetooth radio worth \$287. The mystery tool was a cordless concrete vibrator.

Terms and conditions:

Entry is open to all New Zealand residents except employees and immediate families of BRANZ and The ToolShed shops. The competition will close at 9 am on Friday 13 July 2018. The prize is not transferable for cash. The judge's decision is final. No correspondence will be entered into.

+ BUILDERS' APPS



In this series, we introduce some great apps and tools for your smartphone. The apps can be found in the iPhone store and/or the Android store. If you know any you'd like to recommend, email us the details at buildersmate@branz.co.nz.



CLOUD STORAGE

Keep your valuable documents and photographs backed up on the cloud. Some good storage options are free. Google Drive and Box are examples.



VIDEO CALLING

Sometimes a video call is better than a phone call. WhatsApp, Facebook Messenger, Skype, Google Duo and a host of other apps allow easy video chats.

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www.branz.co.nz/e-learning

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- · Building consent challenges
- Introduction to the LBP Scheme
- Restricted building work

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Although BRANZ has made every attempt to ensure the accuracy of its information, it provides generic advice only, and BRANZ accepts no liability for any loss or damage incurred. Opinions expressed in *Builder's Mate* do not necessarily reflect the views of BRANZ.

Standards referred to can be purchased from Standards New Zealand. Tel: 0800 782 632 or www.standards.co.nz.

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