

### Screw gauges

Engineers who are specifying screw gauges for structural applications need to be aware of shank diameter differences that occur for a given gauge. For example, for a 10 gauge screw shank, the diameter can range from 2.74 mm to 5.12 mm. The former would only equate to a 4 gauge screw using Table 4.5 in NZS 3603:1993 *Timber structures standard*, which requires a 10 gauge screw to have a minimum shank size of 4.88 mm.

We suggest that, when specifying, it would be safer to state the minimum shank diameter rather than specifying the gauge.

### H3.1 timber weatherboards – NZS 3602 requirement for painting

NZS 3602:2003 *Timber and wood-based products for use in buildings* requires H3.1-treated timber weatherboards to be painted. Unpainted ends or joints or ripped edges are all potential moisture entry points that could cause premature failure of the paint coating and ultimately the timber. NZS 3602 specifies that H3.1-treated weatherboards and external finishing timbers are painted on all faces including cut ends and joints before fixing in place.

NZS 3602 also sets out the specific grading requirements for weatherboards.

### P21 bracing tests

Under NZS 3604:2011 *Timber-framed buildings* (cited in B1/AS1 as a means of compliance with Building Code clause B1 *Structure* for timber framing), bracing systems being specified are required have been tested to the September 2010 version of the BRANZ P21 test method ([www.branz.co.nz/P21](http://www.branz.co.nz/P21)).

When specifying bracing, check that the information provided:

- relates to the current test method
- includes current sheet-fixing and holding-down details for the specified product and bracing rating.

If a bracing system has been tested to the old version of the test, if the original test data is available, have an engineer analyse it and update the result.

### ALF 3.2 software upgrade

The ALF 3.2 thermal calculation programme has been upgraded to include a moisture tab to allow users to predict potential mould issues in rooms with typically high moisture loading in residential building designs.

The optional moisture tab was developed to indicate the ability of the design to handle moisture generated within the building.

New and renovated homes are typically more airtight than older ones and often windows are not opened by occupants, so designs may require additional ventilation, higher insulation levels and/or reduced thermal bridging in external walls or glazing units to reduce the risk of internal moisture being absorbed by or condensing on interior surfaces, thereby increasing the likelihood of mould growth.

Further information on the ALF upgrades is given *Build* 128 'ALF upgrade adds moisture' (page 22).

### Using ALF 3.2 – new and existing users

New users of ALF will need to obtain a subscription to log in to the ALF thermal calculation program. Existing users who have registered will also need to remember to log in.

The ALF program is run on a different server, so your ALF log-in may be different to your My BRANZ log-in.

If you do not see 'Hello' and your log-in ID in the red banner at the top of the page, you are not successfully logged in. If you do not log in:

- nothing will be saved
- only limited access to the program is available
- all climate zones are not accessible – only 'Upper South Island' will show.

### Stair widths

Building Code compliance document D1/AS1 does not specify a width for common or main private stairways (the most common stairway applicable within residential buildings) but recommends no less than 850 mm.

When designing stairs, factors to consider are the design parameters given in D1/AS1 for:

- riser and going dimensions to provide safe stairs to use
- acceptable stair projections
- open risers (when used)
- handrail heights and dimensions
- landings
- minimum headroom
- minimum widths when forming part of an access route
- barriers complying with Building Code clause F4 when there is a fall distance of 1 m or more
- clearances at doors accessing onto or off the stair
- curved stairs
- winders
- tread visibility or definition.

It is also important to consider

- whether furniture can be moved between building levels that are only accessible by stairs
- the slip resistance of the stair treads to ensure that stairs are safe to use.

D1/AS1 also gives the design parameters for accessible and service ramps – slope, width, landings, slip resistance and so on.

D1/AS1 is available free from the Department of Building and Housing (DBH) website – see [www.dbh.govt.nz/compliance-documents#D1](http://www.dbh.govt.nz/compliance-documents#D1).

### **E2/AS1 errata now available**

The errata to the recently published E2/AS1 incorporating Amendment 5 is now available on the DBH website – see [www.dbh.govt.nz/UserFiles/File/Publications/Building/Compliance-documents/E2-External-Moisture-amendment-5-errata-2-rp.pdf](http://www.dbh.govt.nz/UserFiles/File/Publications/Building/Compliance-documents/E2-External-Moisture-amendment-5-errata-2-rp.pdf).

### **BRANZ flashing details published before August 2011**

BRANZ publications released before August 2011 that include flashing details do not take account of the revised flashing cover that is required by E2/AS1 for the newly introduced extra high wind zone.

### **BRANZ seminars 2012**

#### ***Learnings from the Canterbury Earthquakes***

This informative seminar will focus on the effects of the earthquakes on the structural performance of residential buildings, particularly those that are considered modern.

The seminar will cover:

- what happened in the Canterbury earthquakes with emphasis on structural performance
- the on-going understanding of which buildings performed and which did not
- why the damage occurred
- the role of the Building Code
- what might need to change with respect to regulations.

The 2-hour seminar will be presented by BRANZ engineers Graeme Beattie and Roger Shelton, both of whom have spent significant time in Christchurch evaluating building damage after each significant event.

Dates and venues for this seminar are:

| Location         | Date                  | Venue                          | Time    |
|------------------|-----------------------|--------------------------------|---------|
| Tauranga         | Monday<br>12 March    | The Sebel Trinity Wharf        | 1.00 pm |
| Hamilton         | Tuesday<br>13 March   | Waikato Stadium                | 1.00 pm |
| *Albany          | Wednesday<br>14 March | Harbour Function Centre        | 9.00 am |
| Ellerslie        | Wednesday<br>14 March | Ellerslie Events Centre        | 1.00 pm |
| *Napier          | Thursday<br>15 March  | War Memorial Conference Centre | 2.00 pm |
| Dunedin          | Monday<br>19 March    | Municipal Chambers             | 1.00 pm |
| Wellington       | Tuesday<br>20 March   | Westpac Stadium                | 1.00 pm |
| Palmerston North | Wednesday<br>21 March | Hotel Coachman                 | 1.00 pm |

\*Please note the different start times for Albany and Napier.

The cost for this seminar is \$69.00, and online registration via the BRANZ website is now open – go to [www.branz.co.nz/seminar\\_register](http://www.branz.co.nz/seminar_register).

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