

## 08 already

Already we are into the third week of the new year – how quickly memories of the Christmas break fade and excitement for the year ahead takes over. Thank you to everybody that sent Christmas emails and cards to the staff at BRANZ.

## Lose up to 50% of thermal insulation performance without trying

While the requirements for insulation have increased under the changes to NZBC Clause H1, one of the biggest factors in the performance of insulation material fitted within framing cavities is the quality of the installation.

Did you know that a small gap between the insulation and the framing can reduce the R-value of that part of the wall by up to 50%?

When installing insulation into roof and wall framing it is critical that the insulation material:

- fits firmly within the framing (no gaps between it and the framing)
- is not squashed or compressed
- does not have folds or creases
- does not, in drained cavity wall construction, push the wall underlay across the cavity and close it off.

## Reality TV shows

It is of concern that, in the current crop of reality property shows on TV, often no mention is made of making sure that 'good' plans and specifications are prepared for building work and that a building consent is obtained before the work is carried out. This gives the impression to homeowners that it is ok (**which it is not**) to carry on regardless.

## Bottom plate treatment

We are being notified of cases where BCAs are incorrectly asking for higher levels of treatment for bottom plates.

Under NZS 3602: 2003 Timber and wood-based products for use in buildings, the key reference for timber specification, there is no requirement (and never has been) for the bottom plate to be treated to a higher level than the wall framing above. A designer is, however, at liberty to specify a higher level of treatment if they believe it desirable.

## Carpenter's pencils

While visiting a building site recently it came as a surprise to see the roofer using a carpenter's pencil to mark notches on the flashing.

Carpenter's pencils must not be used with any steel roofing coil-coated or otherwise as the graphite in the lead can result in corrosion where the material was marked.

## H1 and artificial lighting of large buildings

In conjunction with the introduction of the third edition of H1 Energy Efficiency on 31 October 2007, NZS 4243: Energy efficiency - Large buildings has been split into two parts. Part 1 deals with the thermal envelope and Part 2 deals with the lighting requirements. Following Sections 3.3 or 3.4 of Part 2 will meet the requirements of H1.3.5 to limit energy use from lighting and ensure light levels are sufficient for the activity in the space. Large buildings are defined as those having a floor area greater than 300 m<sup>2</sup>.

## H1 again

When calling the BRANZ Helpline with a query regarding H1 please have a copy of H1 Third edition, NZS 4218: 2004. Energy efficiency – Small building envelope and the BRANZ House Insulation Guide Third edition at hand. It will help us give a faster and clearer response to your question.

An H1 support page has gone live on [www.branz.co.nz](http://www.branz.co.nz). See homepage under "New Publications"

## Insulation below concrete foundation wall footings

The footing to a foundation wall transfers the loads above to the ground. Installing a sheet insulation material under the footing is not permitted as the insulation may affect the load transfer, leading to settlement and cracking. The exception is where a foundation detail that incorporates insulation has been specifically engineered for the load conditions and materials specified.

## Cavities and cladding R-value

Where a cladding is installed over a drained and vented cavity the R-value of the cladding material must be down-rated by approximately 50% because of air movement (which is essential for drying) within the cavity.

The BRANZ House Insulation Guide Third edition has details and construction R-values for a generic direct-fixed sheet cladding and for fibre-cement planks. For both 6 mm fibre-cement planks and 7.5 mm fibre-cement sheet the R-value is very low – R0.03.

Where a 6 mm fibre-cement sheet or a 7.5 mm fibre-cement plank is fixed over a cavity the R-value to be used for the cladding when calculating the construction R-value will be approximately R0.015 – almost negligible (the R-values in the BRANZ House Insulation Guide – pages 62, 63, 68 and 69 should be reduced by approximately R0.015 when the fibre-cement cladding is installed over a cavity).

## H1 and storage water heating

From 31 October 2007, H1 Third Edition removed the exemptions for valve insulation and lower performance electric cylinders from NZS 4305 1996: Energy efficiency - Domestic type hot water systems.

### BRANZ Seminars

*Shortening the Odds – reducing your building risk is back on the road again in March 2008*

Specifically for builders, this seminar focuses on practical building techniques for achieving weathertight construction and therefore reducing your risk of liability. We will complete our tour of the country in early March. The seminar, which has been rated highly by the 2007 attendees, provides solutions for a number of high weathertightness risk areas. Specific dates and locations for March are: 3 New Plymouth, 4 Palmerston North, 5 Nelson, 6 Greymouth, 10 Tauranga, 11 Rotorua, 12 Gisborne and 13 Napier.

Visit our website for more details and to register online – [www.branz.co.nz](http://www.branz.co.nz) (click on Seminars).

### Better Building Business

Registrations will open soon for this seminar, which is a joint venture between BRANZ and the NZ Building Subcontractors Federation. A must for anyone involved in the administration side of a building business, or intending to go out on their own, this seminar will be presented by Rosemary Hazlewood and will focus on practical tips and solutions for ensuring that you are getting the best out of the Construction Contracts Act. Attendees will be given templates and tools that they can take away with them and start using immediately. Dates and locations in March are 4 Dunedin, 5 Christchurch, 6 Wellington, 11 Auckland and 12 Hamilton.