



# Guideline

July 2019

Welcome to this update on technical and informative advice for the building and construction industry on issues relating to building controls and good construction practices.

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## Winter concreting

Place with caution

In cold or winter conditions, the rate at which concrete sets and gains strength decreases, with a resultant increase in the time taken to finish the concrete.

Unfavourable conditions include:

- temperatures below 5°C on a falling thermometer – NZS 3109:1997 *Concrete construction* is quite specific in the permissible temperatures for concrete placement
- temperatures below 2°C degrees on a rising thermometer
- where it becomes impractical to work and finish the concrete adequately
- the ground on which the concrete is to be placed is frozen
- those listed in NZS 3109:1997 clause 7.2.

Precautions when concreting in winter conditions:

- Check the weather. A sunny afternoon with a forecast for a clear night sky will mean low overnight temperatures with the risk of a frost. If snow is forecast, put away the wheelbarrow!
  - Consider using low slump (80 mm – 60 mm if super plasticisers used) concrete. This concrete has a lower water content, it will bleed less and have a shorter setting time.
  - Order concrete with accelerator in it.
  - Consider using a higher strength concrete. The extra cement will cause the concrete to set faster.
  - Do not attempt to finish the concrete until all bleed water has evaporated. This can take some time on cold windless days.
  - Cover the slab with straw and plastic bubble wrap to ensure the top of the slab remains above freezing point. Straw can discolour the top of the slab if it gets wet, so if this is a concern, consider using polystyrene or some other insulation mat instead.
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## Changes to standards – advance notice

Get the pencils out

The Ministry of Business, Innovation and Employment (MBIE) and Standards New Zealand have been working collaboratively to agree on the prioritisation of standards to be reviewed in the year July 2019 to June 2020. Priority has been placed on standards that contribute to the densified

housing solutions, but a number of criteria have been considered. These include an analysis of how critical a standard is for showing compliance with the Building Code, the overall use by the sector and whether the standard still sets an appropriate level of performance for New Zealand. See *Build* 173 'Shorts' for more detail.

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## **New fire Acceptable Solution effective from 27 June 2019**

### **Heating up the fire rules**

The new C/AS2 covers the C clauses in the Building Code and replaces the Acceptable Solutions C/AS2 to C/AS7. C/AS1 remains unchanged. The new C/AS2 came into effect 27 June 2019 and has a transition period of 4 months.

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## **AS and VM changes afoot**

### **Timely guidance**

MBIE will be making the following updates to the Building Code Acceptable Solutions and Verification Methods:

- Providing a new test method (E2/VM2) for building façades up to 25 m using BRANZ Evaluation Method EM7 as a way to confirm building cladding is weathertight.
- Aligning the provisions for hollow-core flooring with the concrete structures standard to allow increased depth of hollow-core flooring. This gives building owners more options and makes it easier to comply with the Building Code (amending B1/VM1).
- Making the National Association of Steel Framed Housing (NASH) light steel framing standard a compliant solution (amending B1/VM1, B1/AS1 and B2/AS1), which will reduce the need for peer review around the structural design of light steel-framed buildings. This will give compliance certainty for designers and developers considering using light steel framing.
- Amending G4/AS1 by adding extractor fans as a compliant way to ventilate bathrooms and kitchens so that homeowners can more easily comply with the new healthy homes standards.
- Updating the water supplies and foulwater sections of the Building Code to cite the most recent joint Australian/New Zealand plumbing and drainage standards. This will make it easier to show compliance, and align with current industry best practice (amending G13/AS1, G13/VM2, G13/AS2 and G13/AS3 and amending G12/VM1, G12/AS1 and G12/AS2).

The current Acceptable Solutions and Verification Methods will continue to apply for building consent applications lodged until 31 October 2019. If the existing methods are used after 1 November 2019, they must be considered as a proposed alternative method.

MBIE has decided to delay the following updates, which were proposed in the consultation, so that further work can be done on them:

- Foundation design for expansive soils.
  - Simple House Acceptable Solution.
  - Ventilation.
  - Adding content from the external cladding guidance document into the new C/AS2 will need to be further reviewed.
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## **CodeMark body suspended**

### **Hammer has been wielded**

As of 10 July 2019, CertMark International Pty Ltd's (CMI) accreditation as a CodeMark product certification body (PCB) under the Building Act 2004 has been suspended by the Joint Accreditation System of Australia and New Zealand (JAS-ANZ). The suspension is due to CMI not meeting CodeMark accreditation requirements. All current CodeMark product certificates issued by CMI remain valid and can continue to be relied on by building consent authorities as long as they remain on the MBIE CodeMark New Zealand product certificate register.

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## Free standards

### No excuse now

To remove barriers to achieving compliance in the building system, over 120 building standards are now available for free download.

The available standards can be accessed through the [Standards New Zealand website](#) and indirectly through [www.building.govt.nz](http://www.building.govt.nz) and [www.codehub.building.govt.nz](http://www.codehub.building.govt.nz).

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## Archive hunting

### Moving with the times – not

With the discussions regarding buildings – particularly those focusing on quality and materials performance – it is interesting to look back on past BRANZ bulletins. Published in 1959, Bulletin No 1 was prophetically titled *New materials a cautionary tale*.

Other topics in a similar vein included:

- Bulletin 15 (1960) *Dampness in buildings*
  - Bulletin 16 (1960) *Thermal insulation of buildings*
  - Bulletin 23 (1961) *Dampproof membranes to concrete slabs*
  - Bulletin 67 (1965) *Mould in buildings*.
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## BRANZ webinars

### Passive Fire

Non-compliant passive fire protection (PFP) has been recognised as a potentially huge issue for quite some time but has been brought to the fore during weathertightness remediation work. Costs associated with bringing the PFP to full compliance can be excessive. Greater knowledge and awareness of this problem and better tools and skills to assess and determine viable solutions will improve confidence in decisions regarding PFP compliance and correction.

This webinar series will look at the options for determining PFP compliance, what kind of information you should be expected to collect or receive regarding PFP compliance and the tools to technically evaluate the implications when PFP is non-compliant for ANARP purposes. The audience will have a greater knowledge of what a standard fire resistance test means for PFP performance in real fires and what the limitations of these tests are.

### **Audience**

Architects, builders, BCAs, designers, quantity surveyors, building surveyors, fire engineers and passive fire protection consultants.

### **Presenters**

The webinars will be presented by one of the following:

- Kevin Frank – Fire Research Engineer, BRANZ
- Greg North – Associate Fire Engineer, Beca

### **Remaining dates and topics**

Fri 19 Jul      BRANZ fire stopping research 2: risk management  
Fri 2 Aug      Construction monitoring

Each webinar starts at 12.30pm and is approximately 45–60 minutes long.

Online registration is [available now](#).