

AMENDMENT NO 4 TO NZS 3603 AND THE USE OF MSG TIMBER WHEN WET IN-SERVICE

A question has arisen about the use of machine stress graded (MSG) timber where it will be "wet in-service". Such use is not covered by Table 2.3 of Amendment No 4 to NZS 3603 *Timber structures standard* which has been the trigger for the recent Amendment No 2 to NZS 3604. The NZS 3603 Standards Committee believed that the continuous grading markings would be unsightly in an exposed situation and there would therefore be no demand for the use of MSG timber in these cases.

However, if you want to use MSG timber (Table 2.3) in an exposed (therefore wet application), the stresses given in Table 2.2 to Amendment No 4 to NZS 3603 for **G8** timber shall apply to all of the grades (except MSG6) in Table 2.3.

MSG6 at present, and until advice to the contrary, should only be used in dry service condition in accordance with Table 2.3 with a maximum moisture content of 16%.

Note: that Part 1 of Table 2.2 *Characteristic stresses for visually graded timber (VSG)* and the whole of Table 2.3 *Characteristic stresses for machine stress graded timber (MSG)* are based on a maximum moisture content of 16%.

Where the tables in NZS 3604 provide for wet in-service options for VSG and MSG grades (e.g. Table 7.1 *Floor joists*), the spans should be taken directly from the tables as they have been calculated to take account of a higher moisture content in-service.

CAVITIES AGAIN

Cavities are an accepted part of construction for most designers and builders as they add an additional margin of safety into our construction. However, there are a number of key aspects of cavity construction that are not following the parameters defined by E2/AS1.

Specific examples reported have included:

- not closing off the cavity from soffit and roof spaces. All cavities, whether a nominal 20 mm behind lightweight claddings or masonry veneer, must be closed off from adjacent roof and soffit spaces. Cavities must also be closed off from sub-floor spaces
- ensuring there is enough opening at the bottom of the cavity to allow drainage and venting. E2/AS1 requires a 1000 mm² clear opening for every lineal metre of wall length. Openings are to be holes or slots 3–5 mm wide
- having cavity heights greater than two floors
- installing horizontal battens that block-off drainage – any horizontal batten within a cavity (except at the top of the cavity) must stop 50 mm short of a vertical batten and be installed on a 5° slope
- not providing stop-ends to head flashings.

ENQUIRIES ABOUT LICENSED BUILDING PRACTITIONERS

A request from the BRANZ Helpline – can you please direct your enquiries about the licensing of Building Practitioners directly to the Department of Building and Housing. Key

information can be found at www.dbh.govt.nz/occupational-licensing, or call 0800 60 60 50 with any questions or feedback.

MAXIMUM CAVITY BATTEN MOISTURE CONTENT

What should the moisture content be for timber battens used to construct a drained and vented cavity behind lightweight cladding when the cladding is applied?

NZS 3602 Table 1D10 specifies an in-service moisture content of 20% for timber cavity battens. However, E2/AS1 Section 11.2 (a) requires a 24% maximum moisture content for framing in an uninsulated building. In BRANZ's view, because a timber cavity batten is outside the line of the thermal envelope it can be considered an uninsulated situation and an increased maximum moisture content of 24% is reasonable.

Given the level of treatment for battens, a maximum moisture content of 24% will not affect batten durability. However, a moisture content above 24% at the time of installation will result in unacceptable shrinkage in the cavity batten. This could affect the performance of the cladding (given that under E2/AS1 it is the cladding fixings that hold the battens in place).

USING THE RIGHT GRADE TIMBER

In a number of cases brought to BRANZ's attention, No 2 framing grade timber is being used for purlins. Under NZS 3602, structural grades of timber are required for purlins and No 2 framing grade timber is expressly excluded.

CITE Future events

CITE Weathertight Design

Wellington – 2006
Week 1: 16-18 October
Week 2: 20-24 November
Cost: \$3,937.50 incl. GST

CITE Access, Egress and Barriers

24-26 October – Rotorua
Cost: \$1,350 incl. GST

CITE Building Controls

Christchurch
Week 2: 30 October - 3 November 2006
Cost: \$3,937.50 incl. GST

Contact Natasha Breen, CITE Coordinator, phone 04 238 1291 or email BRANZCITE@branz.co.nz.

SEMINARS

Planning for the next seminar beginning in November is underway. It is a joint presentation between BRANZ and DBH that will focus on how weathertightness design principles should be applied to Alternative Solutions in day-to-day situations.

Online registration is now available at www.branz.co.nz

Dates and venues for the first half of November are: 6 Gisborne, 7 Whangarei, 8 Albany, 9 Auckland, 13 Napier, 14 Palmerston North, 15 New Plymouth, 16 Kapiti, 20 Invercargill, 21 Alexandra, 22 Oamaru and 23 Dunedin.

Please note that the dates and venues differ from those published in the BRANZ 2006 seminar leaflet.

For more details contact Gail King, Seminar coordinator, phone 04 237 1170 or email GailKing@branz.co.nz.