

## 1. Background

There are currently up to four treatment levels, including untreated timber, used for enclosed framing of a house.

This has caused confusion for builders, designers and territorial authorities. Due to this confusion, errors in the specification and use of timber have occurred on site. Correcting these errors is expensive.

Some time ago, a broad consensus was reached across the industry, that there needed to be a simpler cost-effective system to manage the specification and use of treated timber. This would enable merchants to reduce their inventories, and manufacturers to reduce production costs. Eight years of research has shown that H1.2 boron and H3.1 are equally effective in protecting framing timber from fungal decay.

## 2. Proposal

The industry has worked closely with the Department of Building and Housing (DBH) and has developed the following proposal:

- Amend B2/AS1 Durability
- Introduce a single treatment class based on H1.2

The proposal has been discussed widely and has had strong support in submissions for this single treatment class. The DBH has decided to change the Acceptable Solutions as proposed with a few clarifications. This change will mean the timber treatment system in the Acceptable Solutions will be:

- Simpler and easier to use
- Time and cost effective, and
- Will protect framing adequately from decay and insect attack

The new Acceptable Solution took effect on 4 April 2011. From 4 April to 30 June 2011, both the old and new versions of B2/AS1 may be used for building consents. From 1 July 2011, only the new version of B2/AS1 applies.

## 3. Outcome

B2/AS1 adopts H1.2 with boron treatment for nearly all enclosed timber framing. The **exception** being for cantilevered deck joists which must be H3.2. The reason being is that cantilevered decks depend more critically on the strength of the timber to prevent collapse. In addition, cantilevered decks are unlikely to have regularly occupied spaces beneath, and a leak might go unnoticed and lead to collapse.

The Acceptable Solution allows for the use of untreated Douglas fir where homes are low-risk design. This is because Douglas fir is slightly more resistant to decay than untreated radiata pine, although it is not as resistant as treated radiata. The Acceptable Solutions define a low-risk design.

The changes apply to both structural and non-structural framing, i.e. studs, lintels, plates, nogs, dwangs, blocking, etc.

**Document type: Practice note**

**Title:** H1.2 timber treatment

**Document no:** AC2244



All structural and non-structural timber in **single storey** and **multi-storey** buildings are to be H1.2 treated timber minimum.

**Framed roofs:**

Purlins, rafters and roof support framing, underpurlins, support struts, beams can now be H1.2 radiata or H1.2 Douglas fir.

**Enclosed roof below 10°**

Flat roofs can now be H1.2

Roof framing supported by absorbent roof cladding such as timber shingles protected by solar-driven moisture can now be H1.2. This includes the purlins, rafters, nogs and support framing.

**Skillion roofs roof below 10°**

All skillion roofs, including those under 10 °pitch, the purlins, rafters, nogs and support framing can be H1.2.

**Trusses**

All enclosed trusses, regardless of configuration, including purlins and timber support framing can be H1.2. The H1.2 requirement applies to all trusses, part trusses and gable end trusses.

<b>Other components in roof, wall and subfloor framing:</b>	Treatment
Valley boards	H1.2
Valley rafters, ridge boards, hip boards, collar ties	H1.2
Gutter boards	H1.2
Purlins, tile battens	H1.2
Double top plates	H1.2
Ceiling battens	H1.2
Bottom plates	H1.2
Parapet framing	H1.2
Enclosed eaves framing and associated members	H1.2
Internal walls and isolated posts	H1.2
Boundary joists (and wall framing supporting direct fix monolithic cladding)	H1.2
Furring used for slopes in 'flat' roofs	H1.2
Joists and deck framing	H1.2
Enclosed balcony handrails	H1.2
All enclosed deck framing and support framing	H1.2
Boxed framing: column, beams and chimney framing that is clad on more than one side	H1.2
Subfloor framing (provided the framing is enclosed and not in ground contact)	H1.2
Ground floor joists and associated framing, bracing, bearers (over DPC)	H1.2
Cantilevered deck joists	H3.2

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## 4. Building consents processed prior to 4 April 2011

Where the building consent was issued prior to 4 April 2011, the building consent applicant may substitute the timber treatment, provided it meets the requirements of this practice note. However, an amendment is required to record this change.

The amendment can be actioned by completing AC2131 an application for on-site minor variation. The completed form must be submitted to Council at the framing inspection, identifying the areas where timber treatments have been amended. A copy of this form is available on Council website.

## 5. References

New Zealand Building Code, clause B2/AS1 Durability; Amendment 7 effective from 4 April 2011