

# Laserframe Boron H1.2 Framing



## Safe Use and Handing Information

NOVEMBER 2008

### General Description and Recommendation

Laserframe Boron H1.2 is kiln dried, machine stress graded timber framing that has been treated to the H1.2 Hazard level with boron compounds. This is in compliance with the requirements of NZS3640, chemical preservation of round and sawn timber. As such it is deemed to meet the performance requirements of NZBC B2 Durability of 50 years and NZS3602, for timber and wood-based products for use in building providing a reasonable level of durability in the event of;

- Serious delays or interruption of construction
- Unpredicted leakage or water entry into the building envelope until that leakage can be remedied.

**Dry structural timber should be closed in early and kept dry in-service for best results. H1.2 is not a solution for permanent weather exposure, for ground contact, or for long term damp situations.**

### Benefits and Features

- Treatment meets or exceeds the performance requirements for H1.2 treatment AND has a quality assurance programme that is independently audited for compliance with NZS3640
- Treated with boron compounds which have a 50 year use history in NZ
- Machine stress graded for reliability
- Odourless
- No toxic metallic compounds
- Easy to work with (cutting, drilling, nail holding, gluing, non-corrosive with aluminium or zinc coatings)
- Cut end protection is not required for end sections, holes, rebates, notches, machining etc
- Exposure to weather during ordinary construction will not adversely affect the treatment in the product
- Compatible with virtually all other building materials fasteners and hardware.

### BUILDING PRACTICE

#### GENERAL:

- Don't leave Laserframe Boron H1.2 timber, precut frames or trusses lying on the ground
- Minimise exposure to weather, ie close in early
- Avoid ponding of water on floors and around plates
- Cut out plates at doors and windows early
- Dry out framing that has become wet during construction before closing in.

#### EXPOSURE TO WEATHER:

Given the range of climatic variation in New Zealand, the slow rate of leaching of boron and the intent that dry framing should be enclosed early, it is not appropriate to have specific limits on

exposure to weather for Laserframe Boron H1.2. It is tolerant of weather exposure, but not ground contact, and prolonged periods of dampness.

However the following is a reasonable guide to exposure of Laserframe Boron H1.2, but it is stressed that fabricated components for example prenailed frames and trusses, are degraded by long exposure:

- Protect fabricated products from the weather, store off the ground, allow for ventilation
- Close in early but ensure the framing is generally dried back to a moisture content suitable for lining
- Minimise ponding on floors.

#### CUTTING DRILLING AND MACHINING:

Laserframe Boron H1.2 is a full-section treatment system. (Initially with a preservative concentration varying from a maximum at the outer envelope, less in the core.) After wetting, the boron further diffuses with a tendency to uniformity across the section. The following recommendation applies to cut ends or holes:

- Cutting, drilling, machining, rebating, notching or planing – No further protection or coating of such ends, holes or faces is required.

#### MOISTURE METER READINGS

The Boron preservative in Laserframe Boron H1.2 will affect the accuracy of moisture meter readings. For wood that has been allowed to equilibrate with its surroundings (normally 3 to 4 weeks after treatment), the following corrections apply:

Meter Reading, % MC	True Moisture Content %
	Conductivity Meter* or Resistance Meter*
15	13
16	14
17	15
18	16
19	16
20	17
21	18
22	18
23	19
24	20
25	21
26	21
27	22
28	23
29	23
30	24

\*Calibrated for Douglas fir

The data contained in the moisture meter correction tables, was obtained by testing of Boron H1.2 Moisture Content using moisture meters and correlating the results to oven dried Moisture Content test results. This work was carried out for Carter Holt Harvey by Timtech Ltd and SCION (formerly NZ Forest Research Institute).

### Moisture Meter Tips

- 1 The only appropriate moisture meter to be used on site is the 'sliding hammer' type which is a resistance meter. To use a capacitance meter or another type will almost certainly give false readings.
- 2 Use insulated electrodes only.
- 3 The meter must be calibrated annually.
- 4 The meter is to be used by inserting the probes to 1/3 the depth of the timber member (16mm), in line with the grain of the timber and no less than 500mm from the end of the timber member.
- 5 The meter reading must then be corrected by applying correction figures for both species and treatment. Use the correction figures in the above tables or from 'Measuring the moisture content of wood' by Ian Simpson of SCION (formerly NZ Forest Research Institute).

**Note:** Laserframe Boron H1.2 is treated with a water-based preservative and experiences a small increase in moisture content as a result of treatment. However, the moisture content will return to normal levels during fabrication or construction.

### Compatibility with Other Building Materials

Laserframe Boron H1.2 timber, framing, roof and ceiling components, and other building elements are compatible with other building materials in normal use in New Zealand.

These include:

- GIB lining boards and GIB stopping compounds
- Building wrap, both saturated paper and synthetic types
- Galvanised, zinc plated, aluminium, copper and bronze fasteners and hardware
- Bulk insulation of fibreglass, wool, foam, polystyrene
- Insulation to electrical and communication wiring, trunking or ducting
- Glues, either water or solvent based, and adhesives generally
- Plywood, particleboard and all wood-based panels
- Fibre cement panels of all types
- Acrylic, polyester and similar synthetic panels.

### Durability

Laserframe Boron H1.2 timber when used for building framing in accordance with NZS3602 Timber and wood-based products for use in building, will meet the requirements of the NZ Building Code B2 Durability:

- Provided the building has been enclosed so that the in-service moisture content levels of NZS3602 for the wall framing are met, ie the building is not leaking
- And provided there is maintenance of the external envelope of the building so that the in-service moisture content levels (as above) continue to be met.

### Safe Handling

- Wear a dust mask (P1 or better) and goggles when cutting or sanding wood. (Remember all wood dust can cause respiratory problems)
- Wear gloves when working with wood
- After working with wood, wash exposed skin areas thoroughly
- Wash work clothes separately from other household clothing
- Do not use as mulch or as animal litter.

### Disposal of Residues

- Do not burn in open fires or barbecues
- May be disposed of in landfills or burned in commercial or industrial incinerators or boilers, subject to national or regional requirements or regulations.

### Identification and Marking

- All Laserframe Boron H1.2 has the characteristic pink/red colour required by NZS3640
- All Laserframe Boron H1.2 will be end branded or labelled with the plant code (eg 733) the preservative code number (11), the Hazard class (H1.2) and the AgriQuality logo in this sequence
- All Laserframe is mechanically graded after kiln drying and planing and before treatment and has the grading inkjet marks on one edge. Below is an example of the inkjet brand.

Laserframe MSG 90x45 KILN DRIED AS/NZS1748:2006 Keep dry

### Quality Assurance

Carter Holt Harvey has strict quality assurance processes in place to monitor that Laserframe Boron H1.2 adequately satisfies both preservation and structural requirements. AgriQuality New Zealand and Bureau Veritas New Zealand, both JAS-ANZ accredited conformity inspection companies, have been contracted to undertake independent third party auditing of the treatment and machine stress grading processes for this product.

**Disclaimer:** The information contained in this product information sheet is current as at November 2008 is and based on data available to Carter Holt Harvey as at the time of going to print.

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