CodeMark >>>

Certificate no: CMNZ10004

Version: 02

Original issue date: 20 February 2019

Version date: 29 May 2025

1. Certificate Holder Details



Fletcher Building Products Ltd t/a Laminex

New Zealand

810 Great South Road

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Tel:

0800 303 606 Email: csc@laminex.co.nz

www.laminex.co.nz Web:

2. Product Certification Body

BRANZ Limited

1222 Moonshine Road RD1. Porirua 5381 Private Bag 50 908 Porirua 5240

New Zealand Tel: 04 237 1170

Email: assuranceservices@branz.co.nz

Web: www.branz.nz

Complaints: The complaints process for this

certificate can be found here:

https://www.branz.co.nz/codemark-info/complaintsand-appeals/



Product Certificate

StrandfloorH3.1® Flooring

3. Description of Building Method or Product

StrandfloorH3.1® is an engineered wood-based panel flooring material available as StrandfloorH3.1® Square-Edge and StrandfloorH3.1® Tongue & Groove which has green polypropylene tongues. StrandfloorH3.1® is intended for use in wet areas. The strands of StrandfloorH3.1® are treated to hazard class H3.1.

All panels are ink marked on the underside with the New Zealand Timber Preservation Council registration number and treatment type, StrandfloorH3.1 and a five-digit traceability code.

4. Intended use of Building Method or Product

StrandfloorH3.1® is for use as panel flooring material on suspended timber-framed floors.

StrandfloorH3.1® is also for use as a non-structural overlay on concrete slab-on-ground floors, suspended concrete floors and suspended timber floors.

5. New Zealand Building Code Provisions

Clause B1 STRUCTURE: Performance B1.3.1, B1.3.2 and B1.3.4 for the relevant physical conditions of B1.3.3 (a), (b), (f), (h), and (j) [i.e. loads arising from self-weight, imposed gravity loads, earthquake, wind and impact].

Clause B2 DURABILITY: Performance B2.3.1 (a) not less than 50 years (when used as a diaphragm floor or installed under bottom plates), B2.3.1 (b) 15 years (when installed as flooring between bottom plates), and B2.3.1 (c) 5 years (when used as a non-structural overlay).

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1.



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6. Conditions and Limitations of Use

StrandfloorH3.1® is for use as panel flooring material on suspended timber-framed floors that have been designed and constructed in accordance with NZS 3604, Section 7.

StrandfloorH3.1® is also for use as a non-structural overlay on concrete slab-on-ground floors, suspended concrete floors and suspended timber floors.

The maximum exposure period for StrandfloorH3.1® flooring before the building is closed-in (protected from moisture) is 12 weeks.

The moisture content of the StrandfloorH3.1® flooring must be controlled in accordance with the provisions of NZBC Acceptable Solutions E2/AS1 and E3/AS1, NZS 3604, and the Reference Document.

StrandfloorH3.1® flooring in-service surface temperatures must not exceed 50°C adjacent to heating appliances or 35°C where floor heating is used.

Where StrandfloorH3.1® flooring is used as a structural diaphragm only nail fixing must be used.

REFERENCE DOCUMENTS

This Product Certificate must be read in conjunction with:

Strandfloor® Technical Manual, Edition 11, dated May 2024.

7. Health and Safety Information

Exposure to wood dust may cause irritation to the respiratory system and skin and may cause sensitisation resulting in asthma or skin dermatitis. A dust mask and eye protection must be worn when working with StrandfloorH3.1®. Work areas must be ventilated and kept clean. Machinery used must be fitted with dust extractors. Off-cuts, shavings and dust must be disposed of in accordance with the requirements of local authorities.

The adhesive used to manufacture StrandfloorH3.1® contains no formaldehyde. The amount of formaldehyde emitted by the StrandfloorH3.1® is less than similar flooring materials manufactured using melamine urea formaldehyde type adhesives. Formaldehyde emissions from StrandfloorH3.1® meet the Super EO classification when tested in accordance with AS/NZS 4266.1.

The level of formaldehyde emission will decrease with time. After installation, emission levels will be controlled by ventilation together with the sealing of the surface or finishing with a polyurethane system, or the use of coverings such as tiles, vinyl or carpets with foam or rubber underlays. Covering or sealing of the sheets must be carried out before the building is occupied.



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8. Basis for Certification

Testing

- Testing in accordance with the requirements of AS/NZS 1860.1 and BRANZ criteria to demonstrate structural and durability performance.
- The change in the physical properties of StrandfloorH3.1®, including modulus of rupture, modulus of elasticity, internal bond strength, thickness swell and surface water absorption after natural weathering have been determined by BRANZ.
- The density, modulus of rupture, modulus of elasticity, internal bond, and deflection under concentrated load (stiffness) of StrandfloorH3.1® have been determined by BRANZ.
- Strength capacity and deflection under concentrated load (stiffness) of StrandfloorH3.1® exposed to the weather for 12 weeks, have been determined by BRANZ.
- Formaldehyde emission levels have been determined by testing to AS/NZS 4266.16. The results of these tests have been reviewed by BRANZ and found to be satisfactory.

9. Supporting Documentation for Certification

- Acceptable Solutions and Verification Methods For New Zealand Building Code Clause B1 Structure, 1st Edition, Amendment 20, 29
 November 2019.
- Acceptable Solutions and Verification Methods For New Zealand Building Code Clause B2 Durability, 2nd Edition, Amendment 12, 28
 November 2019.
- Acceptable Solutions and Verification Methods For New Zealand Building Code Clause F2 Hazardous Building Materials, 1st Edition, Amendment 3, 1 January 2017.
- AS 3566.1:2002 Self-drilling screws for the building and construction industries.
- AS/NZS 1860.1:2002 Particleboard flooring Part 1: Specifications.
- AS/NZS 4266.1:2017 Reconstituted wood-based panels Methods of testing Part 1: Base Panels
- BRANZ Appraisal No. 677 Strandfloor® H3.1 Flooring.
- BRANZ Memorandum TV17705 for Laminex NZ, dated 8 November 2024.
- C1-C6 Protection from Fire Acceptable Solution C/AS1 Protection from fire for buildings with sleeping (residential) and outbuildings (risk group SH), 2nd Edition, 2 November 2023.
- C/AS2 Acceptable Solution for Buildings other than risk group SH For New Zealand Building Code Clauses C1-C6 Protection from Fire, 1st Edition, Amendment 3, 2 November 2023.



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- NZS 3602:2003 Timber and wood-based products for use in building.
- NZS 3604:2011 Timber-framed buildings.
- Ministry of Business, Innovation and Employment Record of amendments Acceptable Solutions, Verification Methods and handbooks.
- The Building Regulations 1992.

10. Supporting Information About Description

StrandfloorH3.1® is in accordance with the performance requirements of AS/NZS 1860.1 (before and after exposure) as required by NZS 3604, Paragraph 2.3.7.

StrandfloorH3.1® flooring is manufactured from strands of radiata pine. The wood strands are treated with a water-based organic preservative and insecticide, bonded with a pMDI resin and contain a mineral wax-based water repellent throughout the thickness of the panel. At manufacture, the panels have an average density of 680 kg/m³ and average moisture content of 10%.

StrandfloorH3.1® Square Edge is square edged and has a nominal thickness of 20 mm.

StrandfloorH3.1® Tongue & Groove is 20 mm nominal thick, with the long edges factory grooved with a 4.5 mm wide and 9.5 mm deep slot, and fitted on one side with a rigid, opaque green polypropylene tongue. This forms a tongue and groove (shear key) joint between adjacent panels.

For the purposes of calculating the building performance index of the building envelope the R-value of StrandfloorH3.1® 20 mm panels should be taken as 0.17 m² K/W.

The product is available as set out in Table 1 and Table 2.

Table 1: StrandfloorH3.1® Square Edge

Panel Sizes (mm)	Approximate Weight per Panel (kg)
3,600 x 1,200 x 20	59
2,400 x 1,200 x 20	39



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Table 2: StrandfloorH3.1® Tongue & Groove

Panel Sizes (mm)	Approximate Weight per Panel (kg)
3,600 x 800 x 20	39
2,400 x 1,200 x 20	39

Fixings - hot-dip galvanised or stainless steel 60 x 2.8 mm annular-grooved flooring nails or 50 mm x 8 g screws that comply with AS 3566.1.

Adhesive - BRANZ appraised adhesive suitable for adhering wood-based panel flooring material to timber or concrete.

11. Supporting Information About Intended Use

GENERAL

The design of StrandfloorH3.1® in wet areas must be undertaken in conjunction with the Reference Document, NZS 3604, Paragraph 4.3.4 and NZS 3602, Table 1. Laminex New Zealand recommend the use of StrandfloorH3.1® in wet areas.

StrandfloorH3.1® in wet areas shall be protected by an impervious floor covering in accordance with NZBC Acceptable Solution E3/AS1.

STRUCTURE

General

Each panel of StrandfloorH3.1® must span at least two floor joist spans (i.e. be continuous over three joists), except at floor edges where infill part panels are required.

StrandfloorH3.1® Square Edge panels must be supported at all edges and ends with solid blocking. StrandfloorH3.1® Tongue & Groove does not require blocking under the tongue and groove joint. In wet areas, where a waterproofing membrane is being used, refer to the membrane supplier's information for support requirements.

Loading

StrandfloorH3.1® will support loads of up to 3 kPa with joists at 600 mm centres as given in NZS 3604, Table 1.2.

Diaphragms

The maximum joist spacing for StrandfloorH3.1® Square Edge diaphragm floors is 600 mm. The diaphragm is as specified by NZS 3604, Section 7.3.



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The maximum joist spacing for StrandfloorH3.1® Tongue & Groove diaphragm floors is 450 mm. Refer to the Reference Document for design and installation information.

PREVENTION OF FIRE OCCURRING

Separation or protection must be provided to StrandfloorH3.1® from heat sources such as fireplaces, heating appliances and chimneys. Part 7 of NZBC Acceptable Solutions C/AS1 and NZBC Acceptable Solution C/AS2 provide methods for separation and protection of combustible materials from heat sources.

INSTALLATION

The moisture content of the floor framing timber must not exceed 18% when StrandfloorH3.1® is installed.

When StrandfloorH3.1® is used as an overlay to timber substrates, the moisture content of the substrate must not exceed 15%.

When StrandfloorH3.1° is used as an overlay to concrete the relative humidity of air at the concrete surface must not exceed 75% prior to installation of the StrandfloorH3.1°, as per the requirements of NZBC Acceptable Solution E2/AS1, Paragraph 10.2 (d). Slabs on ground must be constructed in accordance with NZS 3604, Section 7.5.

12. Supporting Information About Conditions and Limitations of Use

All conditions and limitations provided as stated in this Product Certificate.



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Signatures



Claire Falck

CEO. BRANZ Limited.

All CodeMark certificates that are current much be registered with MBIE. MBIE maintains a register of valid product certificates. <u>Please find</u> the register here.

If the certificate is not listed on this register or it appears as (SUSPENDED), it is not a valid CodeMark certificate and does not have to be accepted by a building consent authority as establishing compliance with the New Zealand Building Code.

