

Decking Technical Guide

1.0 About

1.1 Introduction

Halswell Decking is recommended for residential & light commercial use.

Proper care and maintenance will ensure you get the best performance from your deck.

Before undertaking any construction work you must consult with your local authority to check that any construction requirements are met and to determine if a Building Consent is required. A qualified tradesman should be consulted where expert services may be required.

1.2 Profiles

All Halswell decking profiles are covered by this guide.

1.3 Sales Order Confirmation

Ensure Merchant, Builder or Client signs off Halswell Sales Order Confirmation. Important to Check: Profile Code, Face Finish, Selected Lengths, Coat Colour

2.0 Code Compliance

2.1 Building Standards

Halswell Decking meets the requirements and limitations of the following:

- NZS 3602 Timber and Wood based Products for Use in Building
- NZS 3604:2011, Sec 7.4 Timber Decks
- NZS 3604:2011, Sec 5.2 Wind Zones, incl "Very High"
- BRANZ Bulletin 489

2.2 Timber Grading

Halswell Decking is manufactured and as supplied Sound Tight Knot (STK), which is generally a mix of clears to STK. Any loose or bark encased knots or natural timber defects should be removed during installation. All grades may require some docking.

Halswell Decking is available in 19mm and 32mm thickness and in a variety of cover widths. Random lengths ranges from 1.8 – 5.7m, longer lengths may be available on request.

Halswell Pine and Macro Decking is available in Wet and Dry options. Hardwood Decking is all Kiln Dried.

2.3 Durability

Halswell Decking exceeds the 15-year minimum durability requirement when fixed above ground.

3.0 Coating

Halswell recommends that all deck timber species should be envelope coated before installation, including all cut ends and exposed fresh timber. Avoid coating the top surface only, once installed as this will likely cause movement (cupping) in the timber surface. Halswell recommends consulting with a coating specialist.

4.0 Handling & Storage

All Halswell Decking should be kept dry and out of the weather before installation. Storage of decking on site should be in a cool, dry place, out of direct sunlight and elevated on bearers a minimum 100mm from ground, at 900mm centers on level ground.

Care should be taken when handling the boards to minimize damage.

5.0 Installation

Generally, the timber substrate and framing must comply with NZS 3604:2011, Sec 7.4 Timber Decks. However, where specific engineering design is required the framing shall be at least of equivalent stiffness as the framing provisions of NZS 3604:2011.

5.1 Health & Safety

Halswell Decking cutting must be carried out in a well-ventilated area. Protective equipment including dust masks and hearing and eye protection must be worn.

Oil staining must also be done in a well-ventilated area.

5.2 Timber framing

The sub deck should have at least 450mm clearance from the ground to allow for adequate ventilation in conjunction with suitable board spacing. In wet areas or over water, additional clearance is recommended.

Joists must be spaced at a maximum of 450mm centres, (for 19mm decking) and maximum 600mm centres (for 32mm decking)

The moisture content of the framing must not exceed 20% at the time of fixing the decking as

problems may occur later due to excessive timber movement if framing is too wet.

5.2.1 Allowable tolerances for framing

Framing tolerances must comply with NZS 3604:2011.

- para. 2.4.3-Tolerances and
- Table 2.1-Timber framing tolerances

5.3 Spacing

Board spacing should allow for air circulation and drainage, and also consider seasonal movement. All timber will shrink as the timber dries and swell as it takes on moisture. The degree to which this occurs will vary depending on timber species and whether the timber is supplied air-dried or kiln-dried.

- For 65 & 90mm Decking we recommend a 4mm gap between boards
- For 140 & 180mm Decking we recommend a 6mm gap between boards

5.4 Fastening

Halswell **DO NOT** recommend the usage of any "hidden fastening" systems

All decking boards should have two pre-drilled pilot holes per joist. Pilot holes should penetrate through the decking and not the radiata joist.

For fastening air-dried 140x19mm/32mm decking it is recommended to use 12g x65mm stainless steel decking screws. Pilot holes should be 15mm from the edge.

For fastening 65 or 90x19mm decking, 10gx50mm stainless steel decking screws can be used or alternatively 65mm annular grooved decking nails. If nailing, pilot holes should be 12mm from board edge.

6.0 Maintenance

Appearance will degrade over time unless timber is coated, and both the coatings and all aspects of the decking system are maintained.

Maintenance requirement will vary, depending on the species of timber, site, location, aspect, exposure, and coating selected, but in general terms, annual cleaning of the deck should be carried out to ensure the surface is free from moss, mould, fungal and organic growths, and airborne pollutants.

This should be carried out using water and a mild detergent and soft brush, ensuring all the residue is washed away. Avoid using harsh chemicals, and high-pressure water-blasters as these may damage the surface of the timber. Reapplication of the stain or oil finish, to the cleaned decking, should be

carried out in accordance with the coating manufacturer's instructions.

7.0 Disclaimer

Project specifiers must ensure the Halswell Decking detailed in this Guide is suitable for its intended use. Any specific design or areas that fall outside the specifications of this Guide will require additional detailing. These must meet all requirements of the New Zealand Building Code. Halswell will not be liable for any claims, damages or defects arising from, or in any way attributed to:

- Poor design or detailing
- Incorrect design of the structure
- Poor workmanship
- Settlement or structural movement and/or movement of materials to which the Halswell Decking is attached
- Acts of God including, but not limited to; earthquakes, cyclones, floods or other severe weather conditions or unusual climatic conditions.
- Efflorescence performance of coatings applied to the Halswell Decking.
- Normal wear and tear or: growth of mould, mildew, fungi, bacteria, or any organism on the surface of any Halswell Decking (whether on the exposed or unexposed surfaces).

Halswell Decking is machined with care and inspected to ensure quality. However, it is a natural wood product and subject to variations in weight, density, colour, grain and performance. Care must be taken in installation and maintenance to allow for movement. Swelling, shrinkage, movement and surface cracking are all normal occurrences in timber flooring.

8.0 Current warnings or bans

This product is not subject to a warning or ban under Section 26 of the Building Act 2004.