DENDRO

BY SOUTHERN PINE

PRODUCT WARRANTY

DENDRO is Southern Pine's premium product range of H3.2 treated, solid, clear weatherboards. Manufactured from, high quality, pruned New Zealand Radiata Pine. This product is warranted for 25 years if used in accordance with the enclosed terms and conditions.

Southern Pine Products Ltd (SPP) warrants to replace and / or compensate for defective or substantial product failure subject to the claimant providing;

- proof that the product has been made, or supplied by, SPP and has failed or is substantially unfit for purpose
- timely written notification of the failure of the product (within 30 days of becoming apparent)
- reasonable evidence to indicate the product has been stored, installed and maintained in keeping with normal best practises and consistent with SPP instructions (as per SPP website and brochures)

Warranty is limited to replacement of product or cost value of product at SPP sole discretion and does not extend to any labour or consequential damage caused to other product. Such replacement will be considered full and final compensation.

Cladding and exterior products must be installed by a qualified builder (LBP).

H3.2 Treated DENDRO
25 Year Limited Product Warranty

Inclusions:

- Southern Pine DENDRO products
- Product delamination, splitting or breaking not for reasons excluded below
- Product decay or rot
- Gross manufacturing defects
- Incorrect profiling other than minor variations

Exclusions:

- Evidence that the product has not been correctly stored, installed or maintained. For example, product wet due to incorrect storage, incorrect fixing of weatherboards, failing to properly seal cut ends or punch nails, not applying paint in a timely manner
- Extreme climate areas where regular maintenance has not been carried out such as coastal zones which may require regular washing, or high UV zones which may require more frequent re-painting
- Inappropriate product use that is not consistent with best practise. For example, H3.2 treated product placed in contact with the ground
- Product impacted by natural disasters
- Damage after purchase or delivery
- Fair wear and tear with regard to product's age and conditions of use

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Southern Pine Datasheet
DENDRO H3.2 Treated New Zealand Radiata Cladding System

SPP DENDRO is a range of H3.2 treated, solid timber products which are supplied in either pre-primed and un-primed states. Timber products treated to H3.2 may be used in external applications and in accordance with NZ 3602:2003 sections 110 and 111.

Pre-primed DENDRO weatherboard have factory applied alkyd oil-based primer. To ensure the best protection ensure that at least one additional alkyd primer/undercoat is applied on site followed by at least two quality acrylic finishing coatings to complete weather proofing.

Note: H3.2 has a green (copper) tinge which fades over time. Product requiring staining may be affected by the H3.2 solution.

1. GRADE AND FINISH
- SPP DENDRO solid weatherboards are available in Premium Clear 2 and better.
- Sourced from a pruned log, clear on three faces as per No.1 Clears, but the reverse face is allowed some natural defects (small knot, resin pocket, or other tight defect).
- Profiles are available in both dressed finish and bandsawn finish.

2. HANDLING
SPP weatherboards and other products should be unloaded by hand, or with a Hiab forklift. Do not tip these products from a truck. Avoid scratching the face of the board, and always carry individual boards with their long sections upright to avoid excessive bending.

3. STORAGE
SPP weatherboards must remain dry at all times prior to installation. Product should be stored indoors on a flat surface, with gluts at 1m centres and at least 150mm off the ground.

Avoid direct sunlight and protect from both rain and ground moisture uptake. If storing outside use a secondary waterproof cover and groundsheet whilst allowing for good air circulation.

4. ACCLIMATISATION
At the time of installation, the cladding moisture content must be near the average moisture content which can be expected at site (typically 10% – 16% depending on the location and the time of year). Please allow approximately 3-5 days for the cladding to acclimatise before installation.

5. DIMENSIONAL CHANGE
Timber is hygroscopic (absorbs moisture from the atmosphere) and will take up and release moisture until it reaches the equilibrium moisture content (EMC) with the surrounding environment. During this process, which is ongoing, the timber expands and contracts and thus some dimensional change will occur. This will be minimised by the application of a quality paint system.

6. WEATHERBOARD MOVEMENT
Timber weatherboards are designed to accommodate moisture, thermal and seismic movement in the board laps. DO NOT USE ANY SEALANTS OR GLUES between the boards or board laps, as this may inhibit the natural expansion and contraction of the cladding.

7. PAINT AND COATINGS (PRIOR TO INSTALL)
To avoid laplines which may occur, pre-paint/stain the overlap of the profiles in the same colour as the intended topcoat finish.

Seal all cut ends with two coats of oil-based exterior primer.

8. WEATHERBOARD INSTALLATION
Weatherboard must be installed as per the current building code and BRANZ recommended good building practices.

Single fix all weatherboard profiles. Refer to E2/AS1 Table 24 for limitations. (Please note: This is profile specific refer to SPP technical drawings for nail position.)

When fixing to H3.2 CCA treated timber in either cavity or frame the use of 304/316 Stainless Steel fixings (or durable equivalents, such as silicon bronze) is a requirement of the NZ Building Code.

Ensure weatherboards, once installed, are at least 150mm from the ground and 100mm from decks and terraces as per the NZ Building Code.

Fixing with Paint Finish
When fixing to H3.2 CCA treated timber, in either cavity or frame, the use of 304/316 Stainless Steel fixings (or durable equivalents, such as silicon bronze) is a requirement of the NZ Building Code.

As per E2/AS1 Table 24. When fixing DENDRO cladding for the intention of painting a jolt head fixing with a minimum framing penetration of 35mm is required.

SPP recommend the use of 304/316 Stainless Steel for all DENDRO cladding. Punch nails/screws, putty over and spot prime immediately to avoid moisture penetration.

Fixing with Stain Finish

Galvanised fixings cannot be used with stain for exterior purposes when installed as part of a cladding system.

As per E2/AS1 Table 24. When fixing DENDRO cladding for the intention of staining a Rose Head Nail or equivalent with a minimum framing penetration of 30mm is required. The head of the fixing must sit flush with the face of the board. SPP recommend the use of 304/316 Stainless Steel fixings for all DENDRO cladding as per the NZBC standards outlined below.

NZ Building Code Standard 3602 105.4 states "Preservative treated timber may affect the durability of metal fixings and components... To satisfy the durability provisions of Clause B2 of the NZBC and those acceptable solutions set out in NZS 3604 the correct protective system or grade of stainless steel shall be used." Further, C105.4 states "Timber treatments may affect the life of fasteners... Hot dipped galvanized nails, wire dogs, bolts and sheet fixings in contact with copper chrome arsenate (CCA) treated timber in damp conditions can have an expected life of less than 15 years."

9. RESIN BLEED

Resin Bleed is when resin comes to the surface of a painted weatherboard. Whilst unsightly, the occurrence of resin bleed does not affect the durability or long-term performance of the weatherboard The choice of a light top colour and a correctly applied quality paint system will help to minimise this occurrence.

SPP makes every effort to source non-resinous lumber and identify resin pockets during the manufacturing process, however we do not warranty against this natural feature.

10. COLOUR CHOICE

Dark colours absorb heat from the sun and may cause excessive movement, distortion and possibly resin bleed. Light colours reflect the suns heat. Therefore, only light colours with a light reflectance value (LRV) of greater than or equal to 45% may be used. Refer paint colour charts for details.

11. FINISHING AND PAINTING

- Painting should take place as soon as possible after installation. If boards have been exposed for longer than 4 weeks, some sanding and re-priming may be required.
- Check the moisture content of the boards before painting. Equilibrium Moisture Content (EMC) should be at 16% or less. Use a correctly calibrated moisture meter to check.
- Once installed, remove all loose material such as dirt from the surface. Spot prime any exposed timber with two coats of oil-based exterior primer. Spot prime the filled nail holes.
- Once prepared, apply a minimum of one coat of oil-based primer/under coat followed by two full coats of 100% premium acrylic low gloss house paint to the manufacturer's specification, at a rate of 12-14m2/L.
- Once applied, the two topcoats should have a combined thickness of no less than 50 microns.
- The onus is on the painter to ensure that the primed surface remains well adhered to the timber substrate and is a suitable base for the subsequent topcoats. This is particularly important where the boards have been exposed for longer than 4 weeks before top coating.
- Refer to the AS/NZ 2311 guide to painting buildings.

It is the responsibility of the homeowner to ensure that annual maintenance is carried out. In some cases, this may be required more regularly e.g. sea spray.

12. MAINTENANCE AND CARE OF PAINTED TIMBER PRODUCTS

Wash all exterior surfaces using a low pressure wash system to remove dust, dirt and other contaminants.

Do not use a high pressure washing system. If the washing does not remove stubborn areas of mould or dirt, use a soft brush or broom and an appropriate cleaning agent to remove these deposits. Check with the paint manufacturer and read the directions on the product to apply the cleaning agent.

Once the building is clean and the surfaces have been inspected for damage, wear and tear and paint coating degrade then repairs must be undertaken immediately.

If the paint surface has been damaged, then:
- Remove all damaged paint, sand back if required
- Apply primer on any bare timber

Once the primer has dried apply two top coats of a quality top coat paint

Timber weatherboard homes should be repainted every 5-7 years as per paint manufacturer's specifications. Repainting may be required earlier depending on condition and exposure to harsher elements.

13. MAINTENANCE AND CARE OF STAINED TIMBER PRODUCTS ON H3.2 TREATED RADIATA PINE

As per GOOD PRACTICE GUIDE TIMBER CLADDING:

9.3.1 Clear finishes and stains are applied where the natural colour or grain of the timber is to be retained but a degree of weather protection is required. Clear finishes and stains will only slow but not stop the weathering process. The rate of weathering will depend on the transparency or amount of UV-blocking pigment contained in the finish. Generally, the more pigment, the less the transparency and the greater the protection.

9.3.2 Stains and clear finishes include:
- penetrating wood oil, which soaks into the timber
- penetrating stain, which soaks into the timber
- film-forming stain, which adheres to the timber surface (similar to paint)
- film-forming clear finish.

9.3.3 When selecting an oil or a stain:
- rough-sawn timber is better coated with a low-build penetrating oil or a stain
- a film-forming stain is more durable and will last longer on a smooth surface - if used on a rough-sawn surface, the timber fibres may protrude through the coating providing a potential route for water entry into the timber
- a pigmented finish provides better and longer-lasting protection to the timber than a clear finish
- a film-forming stain must only be applied to dry timber and is likely to blister if applied to timber where the moisture content is too high – check the manufacturer's instructions before application.

As with paint, do not use dark colours as these tend to absorb more heat and accelerate damage to the stain or paint.
Always follow the manufacturer's instructions including coating the stain on all sides and exposed edges on the first coat. This includes staining the ends of boards, which are susceptible to absorbing moisture. Follow up with at least three further coatings once the product is installed. The harsher the environment, the more coatings needed.

Check the condition of the stain every few months (more if in harsh environments). If in, or near, salt spray zone, regularly wash the exterior timber with clean water to dilute the salt. Other air pollutants can be harsh on paint/stain systems including vehicle fumes, geothermal and dust/grit. Do not use high pressure systems such as water blasters as they can damage existing coatings and the timber.

Edges and corners of timber are more susceptible as less stain protection is often applied. Make sure such areas are liberally coated.

A regular program of washing the timber and re-coating is best. Re-coat before the stain breaks down (flaking or cracking) as this will expose the raw timber to the weather and the likelihood of absorbing excess moisture.