



## BRANZ Appraised

Appraisal No. 495 [2016]

## ROSEBURG CEDAR-TONE SUPER PLY CAVITY SYSTEM

### Appraisal No. 495 [2016]

This Appraisal replaces BRANZ  
Appraisal No. 495 [2006].

Amended 11 April 2018



### BRANZ Appraisals

Technical Assessments of  
products for building and  
construction.



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## Product

- 1.1 The Roseburg Cedar-Tone Super Ply Cavity System is a cavity-based wall cladding. It is designed to be used as an external wall cladding system for residential and light commercial type buildings where domestic construction techniques are used.
- 1.2 The system consists of Roseburg Super Ply sheets, which are plywood wall cladding sheets that are finished with either a plain or grooved exterior face, battens, boxed corners, and mouldings. The cladding system is finished with an exterior grade penetrating oil-based stain.
- 1.3 The cladding incorporates a primary and secondary means of weather resistance (first and second line of defence) against water penetration by separating the cladding from the external wall framing with a nominal 20 mm cavity.

## Scope

- 2.1 The Roseburg Cedar-Tone Super Ply Cavity System has been appraised as an external wall cladding for timber framed buildings within the following scope:
  - the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1; and,
  - with a risk score of 0-20, calculated in accordance with NZBC Acceptable Solution E2/AS1, Table 2; and,
  - situated in NZS 3604 Wind Zones up to, and including Very High.
- 2.2 Roseburg Super Ply sheets must only be installed to vertical, flat surfaces.
- 2.3 The system is appraised for use with aluminium window and door joinery that is installed with vertical jambs and horizontal heads and sills. *[The Appraisal of the Roseburg Cedar-Tone Super Ply Cavity System relies on the joinery meeting the requirements of NZS 4211 for the relevant Wind Zone.]*

## Building Regulations

### New Zealand Building Code (NZBC)

**3.1 In the opinion of BRANZ, the Roseburg Cedar-Tone Super Ply Cavity System if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the NZBC:**

**Clause B1 STRUCTURE:** Performance B1.3.1, B1.3.2 and B1.3.4. The Roseburg Super Ply Cavity System meets the requirements for loads arising from self-weight, wind, impact and creep [i.e. B1.3.3 (a), (h), (j) and (q)]. See Paragraphs 10.1 - 10.3.

**Clause B2 DURABILITY:** Performance B2.3.1 (b), 15 years and B2.3.2. The Roseburg Super Ply Cavity System meets this requirement. See Paragraph 11.1.

**Clause E2 EXTERNAL MOISTURE:** Performance E2.3.2. The Roseburg Super Ply Cavity System meets this requirement. See Paragraphs 15.1 - 15.5.

**Clause F2 HAZARDOUS BUILDING MATERIALS:** Performance F2.3.1. The Roseburg Super Ply Cavity System meets this requirement and will not present a health hazard to people.

**3.2** This is an Appraisal of an **Alternative Solution** in terms of New Zealand Building Code compliance.

## Technical Specification

**4.1** System components and accessories supplied by Cedar Products Limited are as follows:

### Roseburg Cedar-Tone Super Ply Sheets

- Roseburg Super Ply sheets are 11.7 mm or 15 mm thick plywood. The sheets are faced with premium grade Okoume. The inner plies are Oregon and the back veneer is minimum C grade softwoods. The sheets are coated with a protective stain prior to them being imported by Cedar Products Limited.
- The 11.7 mm thick Roseburg Super Ply sheets have square edges and are available in sizes of 1200 and 1220 mm wide and 2440, 2745 and 3050 mm long. The exterior face of the sheets has a plain, light band-sawn surface. The 15 mm thick sheets have ship lap edges and are available in sizes of 1200 mm wide and 2440, 2745 and 3050 mm long. The exterior face of the sheet has a light band-sawn surface and is grooved at 200 mm centres.

### Accessories

- **Boxed corner boards** - 90 x 19 mm and 65 x 19 mm Western Red Cedar with 6 x 6 mm weathergrooves.
- **Exterior battens** - 65 x 19 mm Western Red Cedar with 6 x 6 mm weathergrooves.
- **Exterior moulding** - 19 x 19 mm Western Red Cedar.
- **Roseburg Super Ply sheet and exterior cover batten fixings** - 65 x 3.2 mm Grade 316 stainless steel or silicon bronze, flat or rose head annular grooved nails.

**4.2** Accessories used with the system which are supplied by the building contractor are:

- **Flexible wall underlay** - building paper or wrap complying with NZBC Acceptable Solution E2/AS1, Table 23, or breather-type membranes covered by a valid BRANZ Appraisal for use as wall underlays.
- **Flexible wall underlay support** - polypropylene strap, 75 mm galvanised mesh, galvanised wire, or additional vertical battens for securing the flexible wall underlay in place and preventing bulging of the bulk insulation in to the drainage cavity. *[Note: mesh and wire galvanising must comply with AS/NZS 4534.]*
- **Flexible sill and jamb flashing tapes** - flexible flashing tapes complying with NZBC Acceptable Solution E2/AS1, Paragraph 4.3.11, or flexible flashing tapes covered by a valid BRANZ Appraisal for use around window and door joinery openings.
- **Timber cavity battens** - nominal 50 mm wide by 25 mm thick (minimum finished size of 45 mm wide by 18 mm thick) timber treated to Hazard Class H3.1.

- **Cavity batten fixings** - 40 x 2.5 mm flat head hot-dipped galvanised nails to temporarily fix the battens.
- **Cavity vent strip** - PVC, aluminium or stainless steel, punched with 3-5 mm holes or slots complying with NZBC Acceptable Solution E2/AS1, Paragraph 9.1.8.3.
- **Inseal® 3109 tape** - black, compressible, low density foam coated on one side with pressure sensitive acrylic adhesive. The tape is 19 mm thick and is supplied in rolls 10 mm wide and 12 m long.
- **Window and door trim cavity airseal** - air seals complying with NZBC Acceptable Solution E2/AS1, Paragraph 9.1.6, or self-expanding, moisture cure polyurethane foam air seals covered by a valid BRANZ Appraisal suitable for use around window, door and other wall penetration openings.
- **Joinery head flashings** - as supplied by the joinery manufacturer or contractor.
- **Horizontal joint flashing** - folded from aluminium or galvanised steel. Refer to NZS 3604, Section 4 and NZBC Acceptable Solution E2/AS1, Table 20 for durability requirements.
- **Flexible sealant** - sealant complying with NZBC Acceptable Solution E2/AS1, or sealant covered by a valid BRANZ Appraisal for use as a weather sealing sealant for exterior use.

#### **Finishing System Specification**

- At least two coats of an exterior quality, solvent-borne oil penetrating stain must be used over the front face, edges and a minimum 100 mm onto the back face (around the sheet perimeter) of the Roseburg Super Ply sheets to protect the plywood and give the desired finish colour to exterior walls. The stain must be recommended for use as a wall cladding stain by the manufacturer and must be roller or brush applied, not spray applied. Proprietary stain systems have not been assessed, and are outside the scope of this Appraisal. *[Note: Cedar Products Limited recommend the use of oil-based penetrating stains manufactured by Watty, Cabots and Resene.]*

## **Handling and Storage**

- 5.1 Handling and storage of all materials supplied by Cedar Products Limited or the building contractor, whether on site or off site, is under the control of the building contractor. Roseburg Super Ply sheets must be stacked flat, off the ground and supported on a level platform. They must be kept dry at all times either by storing under cover or by providing waterproof covers to the stack. Care must be taken to avoid damage to edges, ends and surfaces. The uPVC vent strip must be protected from direct sunlight and physical damage, and should be stored flat and under cover.
- 5.2 Cavity battens and other accessories must be stored so they are kept clean, dry and undamaged. All accessories must be used within the maximum storage period recommended by the manufacturer.

## **Technical Literature**

- 6.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for the Roseburg Cedar-Tone Super Ply Cavity System. The Technical Literature must be read in conjunction with this Appraisal. All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Appraisal must be followed.

## **Design Information**

### **Framing**

#### **Timber Treatment**

- 7.1 Timber wall framing behind the Roseburg Cedar-Tone Super Ply Cavity System must be treated as required by NZBC Acceptable Solution B2/AS1.

### Timber Framing

- 7.2 Timber framing must comply with NZS 3604 for buildings or parts of buildings within the scope limitations of NZS 3604. Buildings or parts of buildings outside the scope of NZS 3604 must be to a specific design in accordance with NZS 3603 and AS/NZS 1170. Where specific design is required, the framing must be of at least equivalent stiffness to the framing provisions of NZS 3604. In all cases, studs must be at maximum 600 mm centres with dwangs fitted flush between the studs at maximum 800 mm centres.
- 7.3 Additional framing may be required at soffits, horizontal joints, internal and external corners, and window and door openings for the support and fixing of cavity battens and Roseburg Cedar-Tone Super Ply sheets.
- 7.4 Timber framing must have a maximum moisture content of 24% at the time of the cladding application. *[Note: If Roseburg Super Ply sheets are fixed to framing with a moisture content of greater than 24% problems may occur at a later date due to excessive timber shrinkage.]*

### Roseburg Super Ply Sheet Set Out

- 7.5 Plain [non-grooved] Roseburg Super Ply sheets may be installed vertically or horizontally. Grooved Roseburg Super Ply sheets must be installed vertically only. All vertical sheet edges must be supported and fixed through the cavity battens to the wall framing. Horizontal sheet edges must be supported at fixing locations with cavity spacers in accordance with the requirements of NZBC Acceptable Solution E2/AS1, Paragraph 9.1.8.2 [f]. At the base of the wall, the sheets must hang 50 mm below the supporting framing.

### General

- 8.1 Punchings in the cavity vent strip must provide a minimum ventilation opening area of 1000 mm<sup>2</sup> per lineal metre of wall in accordance with the requirements of NZBC Acceptable Solution E2/AS1, Paragraph 9.1.8.3 [b].
- 8.2 At ground level, the bottom edge of the Roseburg Super Ply sheets must be kept clear of paved surfaces, for example footpaths, by a minimum of 100 mm and unpaved surfaces by 175 mm in accordance with the requirements of NZBC Acceptable Solution E2/AS1, Table 18. The ground clearances to finished floor levels as set out in NZS 3604 must be adhered to.
- 8.3 At balcony, deck or low pitch roof/wall junctions, the bottom edge of the Roseburg Super Ply sheets must be kept clear of any adjacent surface, or above the top surface of any adjacent roof flashing by a minimum of 35 mm in accordance with the requirements of NZBC Acceptable Solution E2/AS1, Paragraph 9.1.3.
- 8.4 All external walls of buildings must have barriers to airflow in the form of interior linings with all joints stopped for wind zones up to and including Very High. Unlined gables and walls must incorporate a rigid sheathing or an air barrier which meets the requirements of NZBC Acceptable Solution E2/AS1, Table 23. For attached garages, wall underlays must be selected in accordance with NZBC Acceptable Solution E2/AS1, Paragraph 9.1.3.4. Where rigid underlays are used, the fixing lengths must be increased by a minimum of the thickness of the underlay.
- 8.5 Where the Roseburg Cedar-Tone Super Ply Cavity System abuts other cladding systems, designers must detail the junction to meet their own requirements and the performance requirements of the NZBC. These details are outside the scope of this Appraisal.

### Horizontal and Vertical Joints

- 9.1 Horizontal and vertical joints must be constructed in accordance with the Technical Literature.  
*[Note: Horizontal and vertical joints must be located over structural supports. The design of vertical control joints where the system abuts different cladding types is outside the scope of this Appraisal and is the responsibility of the designer - see Paragraph 8.5.]*

### Inter-storey Junctions

- 9.2 Inter-storey drained joints must be constructed in accordance with the Technical Literature. Inter-storey drained joints must be provided to limit continuous cavities to the lesser of 2-storeys or 7 metres in height, in accordance with the requirements of NZBC Acceptable Solution E2/AS1, Paragraph 9.1.9.4 [b].

## Structure

### Mass

- 10.1 The mass of the Roseburg Cedar-Tone Super Ply Cavity System using 11.7 mm ply sheet is approximately 6.5 kg/m<sup>2</sup> at equilibrium moisture content and the mass using 15 mm ply sheet is approximately 8.5 kg/m<sup>2</sup>. The Roseburg Cedar-Tone Super Ply Cavity System is considered a light wall cladding in terms of NZS 3604.

### Impact Resistance

- 10.2 The Roseburg Cedar-Tone Super Ply Cavity System has adequate resistance to impact loads likely to be encountered in normal residential use. The likelihood of impact damage to the system when used in light commercial situations should be considered at the design stage, and appropriate protection such as the installation of bollards and barriers provided for vulnerable areas.

### Wind Zones

- 10.3 The Roseburg Cedar-Tone Super Ply Cavity System is suitable for use in NZS 3604 Wind Zones up to, and including Very High.

## Durability

### Serviceable Life

- 11.1 Roseburg Cedar-Tone Super Ply Cavity System installations are expected to have a serviceable life of at least 20 years provided the system is maintained in accordance with this Appraisal and the Roseburg Super Ply sheets are continuously protected by a stain finish.

*[Note: This opinion only covers serviceability with regards to structural and weathertightness performance. It does not cover appearance, which may deteriorate significantly, especially where proper and regular maintenance is not carried out.]*

## Maintenance

- 12.1 Regular maintenance is essential for Roseburg Cedar-Tone Super Ply Cavity System installations to continue to meet the NZBC durability performance provision and to maximise the serviceable life.
- 12.2 Annual inspections must be made to ensure that all aspects of the cladding system, including flashings remain in a weatherproof condition. Any damaged areas or areas showing signs of deterioration which would allow water ingress, must be repaired immediately. Sealant, stain coatings, flashings or the plywood sheets must be repaired in accordance with the relevant manufacturer's instructions.
- 12.3 Regular cleaning [at least annually] of the stain finish with water and a mild detergent is recommended to remove grime, dirt and organic growth, to maximise the life and appearance of the system.
- 12.4 Recoating of the stain finish will be necessary throughout the life of the cladding system. Re-staining must be carried out every 2-3 years in accordance with the stain manufacturer's instructions. Re-staining will be required more frequently on exposed northern and western facing walls. When re-staining, care must be taken to ensure bottom edges and ship lap edges are well covered and penetrated with the stain.
- 12.5 Minimum ground clearances as set out in this Appraisal must be maintained at all times during the life of the cladding. *[Note: Failure to adhere to the minimum ground clearances given in this Appraisal and the Technical Literature will adversely affect the long term durability of the Roseburg Cedar-Tone Super Ply Cavity System.]*

## Control of External Fire Spread

- 13.1 The Roseburg Cedar-Tone Super Ply Cavity System is suitable for use on buildings with an SH Risk Group classification, a building height of  $\leq 10$  m and at a distance of  $\geq 1.0$  m to the relevant boundary. Refer to NZBC Acceptable Solutions C/AS2 – C/AS6, Paragraph 5.8.1 for the specific exterior surface finishes requirements for other building Risk Groups.

*[Note: The scope of this Appraisal limits building heights to 10 m in accordance with the limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 (a). The building heights referenced in Paragraph 13.1 above are as defined in the Definitions Sections of NZBC Clauses C1 to C6 Protection from Fire.]*

## Prevention of Fire Occurring

- 14.1 Separation or protection must be provided to the Roseburg Cedar-Tone Super Ply Cavity System from heat sources such as fire places, heating appliances, flues and chimneys. Part 7 of NZBC Acceptable Solutions C/AS1 to C/AS6 and NZBC Verification Method C/VM1 provide methods for separation and protection of combustible materials from heat sources.

## External Moisture

- 15.1 The Roseburg Cedar-Tone Super Ply Cavity System, when installed and maintained in accordance with this Appraisal and the Technical Literature prevents the penetration of moisture that could cause undue dampness or damage to building elements.
- 15.2 The cavity must be sealed off from the roof and sub-floor space to meet compliance with NZBC Clause E2.3.5.
- 15.3 The Roseburg Cedar-Tone Super Ply Cavity System allows excess moisture present at the completion of construction to be dissipated without permanent damage to building elements to meet compliance with NZBC Clause E2.3.6.
- 15.4 The details given in the Technical Literature for weather sealing are based on the design principle of having a first and second line of defence against moisture entry for all joints, penetrations and junctions. The ingress of moisture must be excluded by detailing joinery and wall interfaces as shown in the Technical Literature. Weathertightness details that are developed by the designer are outside the scope of this Appraisal and are the responsibility of the designer for compliance with the NZBC.
- 15.5 The use of the Roseburg Cedar-Tone Super Ply Cavity System where there is a designed cavity drainage path for moisture that penetrates the cladding, does not reduce the requirement for joints, penetrations and junctions to remain weather resistant.

## Installation Information

### Installation Skill Level Requirements

- 16.1 Installation of Roseburg Super Ply sheets and accessories supplied by Cedar Products Limited and the building contractor must be completed by Licensed Building Practitioners with the relevant Licence Class, in accordance with instructions given within the Roseburg Cedar-Tone Super Ply Cavity System Technical Literature and this Appraisal.

### System Installation

#### Wall Underlay and Flexible Sill and Jamb Tape Installation

- 17.1 The selected wall underlay and flexible sill and jamb tape system must be installed by the building contractor in accordance with the wall underlay and tape manufacturer's instructions prior to the installation of the cavity battens and the rest of the Roseburg Cedar-Tone Super Ply Cavity System. Particular attention must be paid to the installation of the wall underlay and sill and jamb tapes around window and door openings to ensure a continuous seal is achieved and all exposed timber wall framing in the opening is protected.



### **Cavity Battens**

- 17.2 Cavity battens must be installed over the wall underlay and directly over studs which are at 600 mm centres maximum. The battens must be temporarily fixed in place with 40 x 2.5 mm hot-dipped galvanised flat head nails at maximum 800 mm centres.
- 17.3 Where studs are at greater than 450 mm centres, the wall underlay must be restrained in accordance with NZBC E2/AS1, Paragraph 9.1.8.5.

### **Roseburg Super Ply Sheet Installation**

- 17.4 Prior to installation of the Roseburg Super Ply sheets, a check must be made to ensure all sheet joints will be supported by framing. Sheets must be fixed through the cavity battens and cavity spacers to the timber framing with 65 x 3.2 mm nails.
- 17.5 Sheets must be dry prior to installation. Before fixing the vertical and horizontal edges of the sheet, the ship lap joint and 100 mm minimum onto the back face of the sheet around its perimeter must be pre-stained with two coats of the finishing stain.
- 17.6 Sheets at batted joints must be installed with a 3 mm gap between the sheet edges. Sheets at ship lap joints must be installed with a 1.5 mm gap between the sheet edges.
- 17.7 For installations in NZS 3604 Wind Zones up to and including Very High, Roseburg Super Ply sheets must be fixed through the cavity battens to the wall framing at maximum 150 mm vertical centres around the perimeter of the sheet and maximum 300 mm vertical centres in the body of the sheet. The fixings must be positioned a minimum of 12 mm from the sheet edges.
- 17.8 At inter-storey levels, sheets must not be fixed to inter-storey joists or blocking. At horizontal joints, there must be a 10 mm gap between sheet edges to allow for shrinkage of the framing. This gap must be flashed with a horizontal control joint flashing to prevent moisture entry.

### **Boxed Corners, Cover Battens and Mouldings**

- 17.9 External corners must be finished with boxed corners formed by nailing 90 x 19 mm and 65 x 19 mm Western Red Cedar boxed corner boards together with 65 x 3.2 mm nails. The formed boxed corners are fixed through the Roseburg Super Ply sheets to the cavity battens with 65 x 3.2 mm nails.
- 17.10 Batted joints must be covered with 65 x 19 mm Western Red Cedar cover battens fixed to the cavity battens or cavity spacers with 65 x 3.2 mm nails.
- 17.11 Internal corners must be finished with 19 x 19 mm Western Red Cedar moulding fixed through the Roseburg Super Ply sheets to the cavity battens with 65 x 3.2 mm nails.

### **Aluminium Joinery Installation**

- 17.12 Aluminium joinery and associated head flashings must be installed by the building contractor in accordance with the Technical Literature. A 7.5 - 10 mm nominal gap must be left between the joinery reveal and the wall framing so a PEF rod and air seal can be installed after the joinery has been secured in place.

### **Finishing**

- 17.13 The stain manufacturer's instructions must be followed for application of the stain finish.

### **Inspections**

- 17.14 The Technical Literature must be referred to during the inspection of Roseburg Cedar-Tone Super Ply Cavity System installations.

### **Health and Safety**

- 18.1 Safe use and handling procedures for the components that make up the Roseburg Cedar-Tone Super Ply Cavity System are provided in the relevant manufacturer's Technical Literature.
- 18.2 Cutting of Roseburg Super Ply sheets must be carried out in well ventilated areas, and hearing and eye protection should be worn.

## Basis of Appraisal

The following is a summary of the technical investigations carried out:

### Tests

- 19.1 The following testing has been completed by BRANZ:
- BRANZ expert opinion on NZBC E2 code compliance for the Roseburg Cedar-Tone Super Ply Cavity System was based on testing and evaluation of all details within the scope as stated within this Appraisal. The Roseburg Cedar-Tone Super Ply Cavity System was tested to the version of E2/VM1 as contained within NZBC Clause E2, Amendment 4. The testing assessed the performance of the foundation detail, window head, jamb and sill details, meter box head, jamb and sill details, vertical and horizontal joints, internal and external corners and balustrade to wall junction with a metal cap. In addition to the weathertightness test, the details contained within the Technical Literature have been reviewed, and an opinion has been given by BRANZ technical experts that the system will meet the performance levels of Acceptable Solution E2/AS1 for drained cavity claddings.
- 19.2 The Pittsburgh Testing Laboratory, USA, has carried out the following tests on typical Roseburg Super Ply cladding: dry racking, wet racking, and glue bond evaluation - vacuum pressure, 2-cycle boil and 9-cycle boil. The results were reviewed by BRANZ and found to be satisfactory.
- 19.2 The APA - Engineered Wood Association performs routine vacuum and 2-cycle boil testing on Super Ply cladding. A sample of the results were reviewed by BRANZ and found to be satisfactory.

### Other Investigations

- 20.1 The widespread use of plywood cladding and weatherboards, particularly in North America over many years, has been noted. This includes satisfactory durability, structural, and weathertightness performance, and non-hazardous properties. In particular, the strength, structural performance, and design criteria for plywood are well documented both overseas and in New Zealand. The performance of Roseburg Super Ply cladding in New Zealand since 1994 has also been considered.
- 20.2 Site visits have been carried out by BRANZ to assess the practicability of installation, and to examine completed installations.
- 20.3 The Technical Literature for the Roseburg Cedar-Tone Super Ply Cavity System has been examined by BRANZ and found to be satisfactory.

### Quality

- 21.1 The manufacture of Roseburg Super Ply sheets by Roseburg Forest Products has not been examined by BRANZ, but details regarding the quality and composition of the materials used were obtained by BRANZ and found to be satisfactory. All manufactured Roseburg Super Ply sheets are inspected and certified by APA - The Engineered Wood Association.
- 21.2 The quality of materials, components and accessories supplied by Cedar Products Limited is the responsibility of Cedar Products Limited.
- 21.3 Quality of installation on site of components and accessories supplied by Cedar Products Limited and the building contractor is the responsibility of the installer.
- 21.4 Designers are responsible for the building design, and building contractors are responsible for the quality of installation of framing systems and joinery, wall underlays, flashing tapes, airseals, joinery head flashings, cavity battens and Roseburg Super Ply sheets in accordance with the instructions of Cedar Products Limited.
- 21.5 Building owners are responsible for the maintenance of Roseburg Cedar-Tone Super Ply Cavity System installations in accordance with the instructions of Cedar Products Limited.





### Sources of Information

- AS/NZS 1170: 2002 Structural design actions.
- NZS 3602: 2003 Timber and wood-based products for use in building.
- NZS 3603: 1993 Timber structures standard.
- NZS 3604: 2011 Timber-framed buildings.
- NZS 4211: 2008 Specification for performance of windows.
- Acceptable Solutions and Verification Methods for New Zealand Building Code External Moisture E2, Ministry of Business, Innovation and Employment, Third Edition July 2005 [Amendment 7, 01 January 2017].
- Ministry of Business, Innovation and Employment Record of Amendments - Acceptable Solutions, Verification Methods and Handbooks.
- The Building Regulations 1992.

### Amendments

#### **Amendment No. 1, dated 11 April 2018.**

This Appraisal has been amended to include 65 x 3.2 mm silicon bronze, flat and rose head annular grooved nails as a fixing option for Roseburg Super Ply sheets and exterior battens. This Appraisal has also been amended to update the Appraisal Holder's name.



In the opinion of BRANZ, **Roseburg Cedar-Tone Super Ply Cavity System** is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided it is used, designed, installed and maintained as set out in this Appraisal.

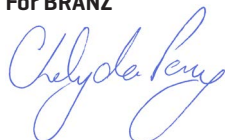
The Appraisal is issued only to **Cedar Products Limited**, and is valid until further notice, subject to the Conditions of Appraisal.

### Conditions of Appraisal

1. This Appraisal:
  - a) relates only to the product as described herein;
  - b) must be read, considered and used in full together with the Technical Literature;
  - c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
  - d) is copyright of BRANZ.
2. **Cedar Products Limited**:
  - a) continues to have the product reviewed by BRANZ;
  - b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
  - c) abides by the BRANZ Appraisals Services Terms and Conditions.
  - d) Warrants that the product and the manufacturing process for the product are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ pursuant to BRANZ's Appraisal of the product.
3. BRANZ makes no representation or warranty as to:
  - a) the nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
  - b) the presence or absence of any patent or similar rights subsisting in the product or any other product;
  - c) any guarantee or warranty offered by **Cedar Products Limited**.
4. Any reference in this Appraisal to any other publication shall be read as a reference to the version of the publication specified in this Appraisal.
5. BRANZ provides no certification, guarantee, indemnity or warranty, to **Cedar Products Limited** or any third party.

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**For BRANZ**



**Chelydra Percy**

Chief Executive

Date of Issue:

12 April 2016