



**BRANZ Appraised**  
Appraisal No. 1189 [2021]

## HERMPAC CEDAR HORIZONTAL CAVITY BATTENS

**Appraisal No. 1189 [2021]**  
Amended 19 August 2021



V8WRC



V9WRC

### BRANZ Appraisals

Technical Assessments of  
products for building and  
construction.



### Hermpac

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## Product

- 1.1 Hermpac Cedar Horizontal Cavity Battens are finger jointed Western Red Cedar cavity battens. They are designed to be installed horizontally over timber framing to create a drained and vented cavity behind vertically installed cladding systems.

## Scope

- 2.1 Hermpac Cedar Horizontal Cavity Battens have been appraised for use as non-structural cavity battens for use with wall cladding systems on 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,
  - with cavity-based wall cladding systems complying with NZBC Acceptable Solution E2/AS1 or a valid BRANZ Appraisal that specifies a nominal 20 mm [minimum 18 mm] drained and vented cavity; and,
  - situated in NZS 3604 Wind Zones up to, and including, Extra High; or,
  - situated in specific design wind pressures up to a maximum design differential ultimate limit state [ULS] of 2.5 kPa.

## Building Regulations

### New Zealand Building Code (NZBC)

- 3.1 In the opinion of BRANZ, Hermpac Cedar Horizontal Cavity Battens, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet or contribute to meeting the following provisions of the NZBC:

**Clause B1 STRUCTURE:** Performance B1.3.1, B1.3.2 and B1.3.4. Hermpac Cedar Horizontal Cavity Battens meet the requirement for loads arising from impact [i.e. B1.3.3 (j)]. See Paragraphs 8.1-8.3.

**Clause B2 DURABILITY:** Performance B2.3.1 (b) 15 years and B2.3.2. Hermpac Cedar Horizontal Cavity Battens meet these requirements. See Paragraphs 9.1-9.4.

**Clause E2 EXTERNAL MOISTURE:** Performance E2.3.2. Hermpac Cedar Horizontal Cavity Battens when used to form a drainage cavity behind a cladding system will contribute to meeting this requirement. See Paragraphs 12.1-12.5.

**Clause F2 HAZARDOUS BUILDING MATERIALS:** Performance F2.3.1. Hermpac Cedar Horizontal Cavity Battens meet this requirement.

## Technical Specification

- 4.1 System components and accessories supplied by Herman Pacific Limited are:
- **Cedar Cavity Battens** - finger jointed cavity battens manufactured from Western Red Cedar. They are 18 mm thick, by 40 mm wide with a 18° slope to the top and bottom edges. Hermpac Cedar Horizontal Cavity Battens come in two profiles:
    - **V8WRC** - featuring 22 mm wide by 5 mm deep castellations to both faces at nominally 100 mm centres. V8WRC cavity battens are intended for use with Hermpac vertical cladding systems - Hermpac VertiLine Vertical Shiplap Cavity System [BRANZ Appraisal 650 [2020]], Hermpac Board and Batten Cavity System [BRANZ Appraisal 828 [2020]], The Hermpac Accoya® VertiLine Vertical Shiplap Weatherboard Cavity System [BRANZ Appraisal No. 1181 [2021]] and The Hermpac Accoya® Board and Batten Cavity System [BRANZ Appraisal No. 1184 [2021]].
    - **V9WRC** - featuring 6 mm wide by 4-5 mm deep castellations to the front face of the batten at 150 mm spacings, and 22 mm wide by 5 mm deep castellations to the rear face at nominally 50 mm spacings. V9WRC cavity battens are intended for use with proprietary cladding systems where horizontal cavity battens are a requirement. V9WRC cavity battens are intended for use with wood-based, fibre cement, polystyrene-based and uPVC cladding products and kraft paper-based and synthetic building underlays. See Paragraph 9.3 for information regarding material compatibility.

## Handling and Storage

- 5.1 Handling and storage of Hermpac Cedar Horizontal Cavity Battens, whether on-site or off-site, is under the control of the building contractor. The battens must be protected from physical damage, and should be stored flat and under cover [well protected from weather].

## Technical Literature

- 6.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for Hermpac Cedar Horizontal Cavity Battens. 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

### General

- 7.1 Hermpac Cedar Horizontal Cavity Battens can be used to form drained cavities as specified by NZBC Acceptable Solution E2/AS1, Paragraph 9.1.8.2, except that Hermpac Cedar Horizontal Cavity Battens can also be installed continuously in a horizontal orientation as ventilation and drainage is permitted through the batten flutes.
- 7.2 Hermpac Cedar Horizontal Cavity Batten profile V9WRC is suitable for use with James Hardie Linea® Oblique Weatherboard [Vertical] Cladding [BRANZ Appraisal 897 [2015]].
- 7.3 When using V9WRC cavity battens with James Hardie Linea® Oblique Weatherboard [Vertical] Cladding, they must not be used in conjunction with the James Hardie supplied battens. The V9WRC cavity battens are 18 mm in thickness, the James Hardie battens are 20 mm thick.
- 7.4 Where Hermpac Cedar Horizontal Cavity Battens are installed horizontally at greater than 450 mm centres and a flexible building underlay is used, a building underlay support in accordance with NZBC Acceptable Solution E2/AS1, Paragraph 9.1.8.5 must be installed over the building underlay behind the cavity battens at 300 mm centres horizontally to prevent bulging of the building underlay into the drainage cavity.



## Structure

- 8.1 Hermpac Cedar Horizontal Cavity Battens must be treated as non-structural packers only. Fixing lengths for the cladding material must be as required for non-structural timber cavity battens.

## Impact Resistance

- 8.2 Hermpac Cedar Horizontal Cavity Battens have adequate resistance to impact loads likely to be encountered in normal residential and commercial use. The battens also have adequate resistance to compressive loads likely to be encountered during fixing of the cladding.

## Wind Zone

- 8.3 Hermpac Cedar Horizontal Cavity Battens are able to transfer the positive wind loads on the wall cladding to the structural wall frame. Hermpac Cedar Horizontal Cavity Battens are suitable for use on buildings situated in all Wind Zones of NZS 3604 up to, and including, Extra High or, situated in specific design wind pressures up to a maximum design differential ULS of 2.5 kPa.

## Durability

### Serviceable Life

- 9.1 Hermpac Cedar Horizontal Cavity Battens are expected to have a serviceable life of at least 15 years.
- 9.2 Hermpac Cedar Horizontal Cavity Battens will have a durability equivalent to that of the cladding, to meet code compliance with NZBC Clause B2.3.2, provided the cladding system is maintained in accordance with this Appraisal.
- 9.3 Hermpac Cedar Horizontal Cavity Battens are compatible with wood-based, cement-based, fibre cement, polystyrene-based and uPVC cladding products and kraft paper-based and synthetic building underlays. Consideration should be given to the information contained within NZBC Acceptable Solution E2/AS1, Table 21 when selecting Hermpac Cedar Horizontal Cavity Battens where they may be in contact with metallic claddings and components, such as claddings or flashings.
- 9.4 In all instances, metallic fixings for the fastening of cladding systems over Hermpac Cedar Horizontal Cavity Battens shall be stainless steel, or silicon bronze, as appropriate for the cladding selected. Selection of cladding fastening type should be made in consultation with the cladding manufacturer's Technical Literature.

## Maintenance

- 10.1 No maintenance is required for Hermpac Cedar Horizontal Cavity Battens. Regular checks (at least annually) must be made of the wall cladding, flashings and penetrations to ensure they are maintained weathertight and continue to perform their function, to ensure that water will not penetrate the cladding.

## Prevention of Fire Occurring

- 11.1 Separation or protection must be provided to the Hermpac Cedar Horizontal Cavity Battens from heat sources such as fireplaces, heating appliances and chimneys. Part 7 of NZBC Verification Method C/VM1 and Acceptable Solutions C/AS1, and NZBC Acceptable Solutions C/AS2 provide methods for separation and protection of combustible materials from heat sources.

## External Moisture

- 12.1 Hermpac Cedar Horizontal Cavity Battens alone will not prevent airflow into the roof space. The cavity must be sealed off from the roof space to achieve compliance with NZBC Clause E2.3.5.
- 12.2 Drained cavities constructed using Hermpac Cedar Horizontal Cavity Battens allow excess moisture present at the completion of construction to be dissipated without permanent damage to building elements to meet code compliance with NZBC Clause E2.3.6.



- 12.3 Where a cladding manufacturer specifies a drained cavity for use behind a vertically oriented cladding system, Hermpac Cedar Horizontal Cavity Battens may be used. Where a proprietary cladding system manufacturer specifies cavity battens as part of their system, permission should be obtained from the cladding manufacturer before the cavity battens are substituted with Hermpac Cedar Horizontal Cavity Battens .
- 12.4 The detailing of the cladding system including junctions between the cladding system and external joinery, other wall penetrations, e.g. meter boxes, and other cladding and roofing junctions is the responsibility of the building designer for compliance with the NZBC. These details have not been assessed as part of this Appraisal.
- 12.5 The use of Hermpac Cedar Horizontal Cavity Battens to form a drained cavity where there is a designed cavity drainage path for moisture that penetrates the cladding, does not reduce the requirements for junctions, penetrations etc. of the cladding system to remain weather-resistant.

## Installation Information

### Installation Skill Level Requirements

- 13.1 All design and building work must be carried out in accordance with the Hermpac Cedar Horizontal Cavity Battens Technical Literature and this Appraisal by competent and experienced tradespersons with an understanding of cavity cladding construction. Where the work involves Restricted Building Work [RBW] this must be completed by, or under the supervision of, a Licensed Building Practitioner [LBP] with the relevant License Class.

### System Installation

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

- 14.1 The selected building underlay and flexible sill and jamb flashing tape must be installed in accordance with the underlay and flashing tape manufacturer's instructions prior to the installation of the Hermpac Cedar Horizontal Cavity Battens.

#### Hermpac Cedar Horizontal Cavity Batten Installation

- 14.2 The battens may be cut on-site with a hand saw or drop saw.
- 14.3 The cavity battens must be fixed in place with 40 x 2.5 mm flathead nails or 50 x 2.87 mm gun nails to temporarily fix the battens in place prior to installation of the cladding. *[Note: Finishing brads can also be used.]*
- 14.4 The top edge of Hermpac Cedar Horizontal Cavity Battens must be installed with the top edge sloping away from the wall underlay towards the back of the cladding in all instances. Additionally, where V9WRC battens are being used, the side of the batten featuring 6 mm wide by 4 mm deep castellations shall face outward, toward the wall cladding.
- 14.5 Where the studs are at greater than 450 mm centres and a flexible building underlay is used, a building underlay support in accordance with NZBC Acceptable Solution E2/AS1, Paragraph 9.1.8.5 must be installed horizontally over the building underlay at 300 mm centres.
- 14.6 The cavity battens must be installed in continuous lengths and installed horizontally to suit the requirements of the selected cladding.

#### Inspections

- 14.7 The Technical Literature must be referred to during inspection of the Hermpac Cedar Horizontal Cavity Batten installations.

### Health and Safety

- 15.1 There are no specific health and safety requirements for Hermpac Cedar Horizontal Cavity Battens, however safe use and handling procedures for the components that make up the cladding system must be followed in accordance with the requirements of the relevant manufacturer's Technical Literature.



## Basis of Appraisal

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

### Tests

16.1 The following testing has been completed by BRANZ:

- BRANZ expert opinion on NZBC E2 code compliance for Hermpac Cedar Horizontal Cavity Battens was based on testing to the relevant components of E2/VM1 (as contained within NZBC Clause E2, Amendment 4). The testing assessed the performance of the Hermpac Cedar Horizontal Cavity Battens in a continuous horizontal orientation. In addition to weathertightness testing, the Technical Literature has been reviewed, and an opinion has been given by BRANZ technical experts that Hermpac Cedar Horizontal Cavity Battens will meet the performance levels of Acceptable Solution E2/AS1 for drained cavity claddings.

### Other Investigations

- 17.1 Durability, in-service performance and compatibility of Western Red Cedar with other materials has been considered by BRANZ.
- 17.2 Site inspections have been carried out by BRANZ to assess the practicability of installation, and to examine completed installations.
- 17.3 The Technical Literature for Hermpac Cedar Horizontal Cavity Battens has been examined by BRANZ and found to be satisfactory.

### Quality

- 18.1 The manufacture of Hermpac Cedar Horizontal Cavity Battens has been examined by BRANZ.
- 18.2 The quality of supply to the market is the responsibility of Herman Pacific Limited.
- 18.3 Designers are responsible for the building design, and building contractors are responsible for the quality of installation of framing systems, building underlays, flashing tapes, airseals and cladding system in accordance with the instructions of the designer.
- 18.4 The quality of installation, handling and storage on-site of the Hermpac Cedar Horizontal Cavity Battens is the responsibility of the installer.

## Sources of Information

- 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.

## Amendments

### Amendment No. 1, dated 19 August 2021

This Appraisal has been amended to clarify the material requirements for the selection of cladding fixings penetrating the Hermpac Cedar Horizontal Cavity Battens.



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28 July 2021

HERMPAC CEDAR HORIZONTAL  
CAVITY BATTENS



In the opinion of BRANZ, **Hempac Cedar Horizontal Cavity Battens** are fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided they are used, designed, installed and maintained as set out in this Appraisal.

The Appraisal is issued only to **Herman Pacific 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. **Herman Pacific 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 **Herman Pacific 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 **Herman Pacific Limited** or any third party.

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For BRANZ

**Chelydra Percy**

Chief Executive

Date of Issue:

28 July 2021