Hermpac

Bevelback and Rebated Bevelback Weatherboard Direct Fix System

Installation Specifications

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Bevelback and Rebated Bevelback Weatherboard Direct Fix System

Installation Specifications

1.0 General Information

1.1 Introduction

The Hermpac Bevelback and Rebated Bevelback Weatherboard System is an external wall cladding system for residential and light commercial type buildings where domestic construction techniques are used.

The cladding system consists of horizontally fixed Hermpac Bevelback and Rebated Bevelback weatherboards, flashings and accessories and is finished with a premium penetrating oil stain or paint finish to Hermpac specifications.

1.2 Hermpac Bevelback and Rebated Bevelback Weatherboards

Hermpac Bevelback and Rebated Bevelback weatherboards are manufactured from Canadian Coastal Western Red Cedar. Selected profiles are manufactured from DuraLarch (oil/stain or paint finish) or Ashin-Dura (paint finish only).

The weatherboard lap and rebate profiles are in accordance with NZS 3617 and BRANZ Bulletin 411. The weatherboards are minimum 18.5mm thick and are available in a range of widths and face profiles. They are supplied as a random length supply. Select lengths are outside of the general specification and are available by special contract.

1.3 Accessories

Accessories supplied by Hermpac for use with the Hermpac Bevelback and Rebated Bevelback System include:

- Hermpac cover battens – HP201 (69 x 18mm) and HP202 (90 x 19mm).
- Hermpac internal corner mould – HP110 (39 x 39mm).
- Hermpac eaves moulding – HP32 (40 x 27mm), HP33 (26 x 15mm) or HP7 (30 x 18mm) bevelled profile.
- Hermpac scribers – HP11 – HP18, with bevelled or radiused edges supplied (cut to suit as required).
- Hermpac weatherboard fixings – (oil stain finish) – silicon bronze, Grade 316 stainless steel annular grooved Hermpac Crown Head, Rose Head or Flat Head nails. The nail shank must be minimum 3.25mm diameter and the length must allow minimum 30mm penetration of the wall frame.
- Hermpac weatherboard fixings – (paint finish) - grade 316 stainless steel annular grooved Hermpac Jolt Head nails. The nail shank must be minimum 3.25mm diameter and the length must allow minimum 35mm penetration of the wall frame.
- Hermpac cover batten fixings – 50 x 2.8mm silicon bronze, Grade 316 stainless steel annular grooved Hermpac Crown Head, Rose Head or Flat Head nails for stain finish or Grade 316 stainless steel annular grooved Jolt Head nails for paint finish.
- Hermpac scriber fixings – length to suit scriber size (minimum 50 x 2.8mm) stainless steel annular grooved Crown Head, Rose Head or Flat Head nails for stain finish or Jolt Head nails for paint finish.
- Hermpac flat and corner soakers - 90° soakers available in copper, stainless steel or etch primed aluminium.
- Hermpac soaker fixings – 19 x 1.6mm silicon bronze or stainless steel Rose Head or Flat head nails.
- Hermpac aluminium flashings – widths to suit specified corners – 2.4m and 3.0m lengths.

1.4 Handling and Storage

Hermpac Bevelback and Rebated Bevelback weatherboards must be stacked flat and true, clear of the ground by a minimum of 150mm and supported on dry and clean timber bearers at maximum 900mm centres.

The weatherboards must be kept dry at all times either by storing within an enclosed building or when stored externally an additional secondary cover to the plastic wrapping is required. Care must be taken to avoid damage to edges, ends and the weatherboard surfaces.

2.0 Design Information

2.1 Design Responsibility

The Specifier for the project must ensure that the details in this literature are suitable for the intended application and that additional detailing is provided for specific design or any areas that fall outside the scope and specifications of this literature.

2.2 Scope

This specification covers the use of the Hermpac Bevelback and Rebated Bevelback Weatherboard System as an external horizontally fixed wall cladding system for buildings within the following scope:

- the scope limitations of NZBC Acceptable System E2/AS1, Paragraph 1.1; and,
- constructed with timber framing complying with the NZBC; and,
- with a risk score of 0-12 calculated in accordance with NZBC Acceptable Solution E2/AS1, Table 2; and,
- situated in NZS 3604 Building Wind Zones up to, and including 'Very High'.

CedarOne or painted weatherboards fixed with Grade 316 stainless steel annular grooved Jolt Head nails are limited to use in NZ 3604 Wind Zones up to, and including Medium where studs are at 600mm centres maximum, and NZS 3604 Wind Zones High and Very High where studs are at 400mm centres maximum.

For applications which are outside the scope of this literature and details which are not in this literature the specifier must ensure that the design meets the relevant performance requirements of the NZBC.

Hermpac recommends that professional design advice is sought in these circumstances.

2.3 Building Regulations

The Hermpac Bevelback and Rebated Bevelback Weatherboard System is designed, used and installed in accordance with the statements and conditions of this literature, will meet the following provisions of the New Zealand Building Code:

- Clause B1 Structure
- Clause B2 Durability
- Clause E2 External Moisture
- Clause F2 Hazardous Building Materials

2.4 Ground Clearances

The finished floor level must have a minimum clearance to paved or unprotected ground as required by NZS 3604:2011.

Hermpac weatherboards must overhang the bottom plate on a concrete slab by a minimum of 50mm as required by NZBC Acceptable Solution E2/AS1, Table 18.

The bottom edge of the Hermpac Bevelback and Rebated Bevelback Weatherboard System must finish a minimum of 100mm above paved surfaces or 175mm above unprotected ground.

At deck or low pitch roof/wall junctions, the bottom edge of the Hermpac weatherboards must be kept clear of any adjacent surface, or above the top surface of any adjacent roof flashing by a minimum of 35mm.

2.5 Structure & Framing

Timber wall framing behind the Hermpac Bevelback and Rebated Bevelback Weatherboard System must be treated

as required by NZS 3602:2003 Timber and wood-based products for use in building.

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. Use of timber framing must be in accordance with framing manufacturer's specifications.

In all cases, studs must be at maximum 600mm centres, with nogs/dwangs fitted flush between the studs at maximum 800mm centres. Note: For CedarOne or painted weatherboards fixed with Grade 316 stainless steel annular grooved Jolt Head nails, studs must be at a maximum 600mm centres for NZS 3604 Wind Zones up to, and including Medium, and 400mm centres maximum for NZS 3604 Wind Zones High and Very High.

2.6 Framing Tolerances

In order to achieve an acceptable wall finish, it is imperative that framing is straight and true. Framing tolerances must comply with the requirements of NZS 3604:2011.

2.7 Wall Underlay

The Hermpac Bevelback and Rebated Bevelback Weatherboard System must be installed over wall underlay complying with NZBC Acceptable Solution E2/AS1, Table 23, or other BRANZ Appraised breather-type membranes.

Unlined gables and walls must incorporate a rigid sheathing or an air barrier fixed to the framing, which meets the requirements of NZBC Acceptable Solution E2/AS1, Table 23. Where rigid sheathings are used, the fixing length must be increased by a minimum of the thickness of the sheathing.

2.8 Hermpac Bevelback and Rebated Bevelback Weatherboards

Hermpac Bevelback weatherboards must be overlapped a minimum of 32mm. Hermpac Rebated Bevelback weatherboards must be overlapped a minimum of 25mm with an expansion gap of 2 mm at the overlap between boards. Hermpac Bevelback and Rebated Bevelback profiles are all manufactured in accordance with BRANZ Bulletin 411 (Refer to E2/AS1 page 106, paragraph 9.4.1.1).

The weatherboards shall be pre-coated with the selected coating (prior to site delivery and installation) by Hermpac associate Machinecoat (NZ) Ltd, by the flood coat inundation method or in-line spray coat system (subject to coating type selected).

Pre-finished Bevelback and Rebated Bevelback weatherboards shall be over-coated and maintained in accordance with the coating manufacturer's specification. All cut ends and/or uncoated surfaces shall be double coated during installation to protect against the penetration of moisture, post installation.

The weatherboards shall be fixed to the studs at maximum 600mm centres using Hermpac weatherboard fixings (refer to Section 1.3 of this specification).

External corners shall be weatherproofed by the use of corrosion resistant corner flashings and cover battens HP201 and HP202 with Hermpac scribers, or Hermpac corner soakers.

Internal corners shall be weatherproofed by the use of corrosion resistant internal corner flashings along with internal mouldings eg. Hermpac profile HP110.

3.0 Installation Information

3.1 System Installation

This section of the literature should be read in conjunction with the installation details.

The selected wall underlay and flexible sill and jamb tape system must be installed in accordance with the underlay and tape manufacturer's instructions prior to the installation of the rest of the Hermpac Bevelback and Rebated Bevelback weatherboard system. The wall underlay must be installed horizontally and be continuous around corners. Underlay must be lapped 75mm minimum at horizontal joints and 150mm minimum over studs at vertical joints.

Particular attention must be paid to the installation of the building 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. All penetrations through the wall underlay must be sealed and joints sealed or lapped 150 mm.

Where the studs are at greater than 450mm centres, a wall underlay support, e.g. polypropylene strap, 75mm galvanised mesh or galvanised wire must be installed over the wall underlay at maximum 300mm horizontal centres, to prevent the wall underlay bulging into the drainage cavity.

3.1.1 Aluminium Joinery Installation

Aluminium joinery and associated head flashings must be installed in accordance with the window manufacturer's instructions. A 7.5-10mm nominal gap must be left between the joinery reveal and the wall framing so a PEF rod and air seal can be installed in accordance with NZBC Acceptable Solution E2/AS1, Paragraph 9.1.6 after the joinery has been secured in place.

3.1.2 Hermpac Bevelback and Rebated Bevelback Weatherboard Installation

Hermpac Bevelback and Rebated Bevelback weatherboards must not be wet prior to installation. The back, face and edges of the Hermpac Bevelback and Rebated Bevelback weatherboards must be sealed prior to installation with an exterior grade oil-based penetrating stain or paint.

During installation, cut ends and edges and all fresh cuts or exposed timber must be double sealed with the same oil stain or paint.

Before the weatherboards are installed, the corner detail must be prepared to suit the selected option, e.g. external box corner, external corner moulding etc. The necessary flashings must be installed before commencing weatherboard fixing.

The first course of weatherboards must be full length and commence from an external corner. The first weatherboard must be installed level to assist with the installation of subsequent weatherboards. The weatherboards must overhang the bottom plate by a minimum of 50mm.

Immediately prior to installing the weatherboards over the internal and external corner flashings, a continuous bead of sealant must be applied to the face of the flashing along the fixing line.

Hermpac Bevelback weatherboards must be overlapped a minimum of 32mm.

Hermpac Rebated Bevelback weatherboards must be overlapped a minimum of 25mm with an expansion gap of 2mm at the overlap. For best practice use the Hermpac clinch nail to restrain the top of the weatherboard lap at every stud.

Hermpac Bevelback and Rebated Bevelback weatherboards must be pre-drilled on a slight up-slope, with a hole slightly smaller than that of the nail to reduce the risk of moisture entry.

Fix each weatherboard with one nail per board at every stud. Fixing must be carried out using silicon bronze or Grade 316 stainless steel annular grooved Hermpac Crown Head, Rose Head or Flat Head nails. The nail shank must be minimum 3.25mm diameter and the length must allow minimum 30mm penetration of the wall frame.

Note: For CedarOne or painted weatherboards, use Grade 316 Stainless Steel annular grooved Jolt Head nails and allow minimum 35mm penetration of the wall frame. Punch nails 2mm below the weatherboard surface, prime nail holes and fill prior to sanding and finishing.

The fixing must be located 35-40mm above the bottom edge of the weatherboard, be located no closer than 32mm from the end of the board (where practical), and the head of the nail must finish flush onto the surface of the weatherboard, not into or below the surface.

Fix weatherboards in full lengths where possible. Where joints are unavoidable, scarf the weatherboard at 30° over a stud and fix as per drawn detail.

3.1.3 Boxed Corners, Cover Battens and Mouldings

External and internal corners must be finished in accordance with the installation detailing.

3.1.4 Finishing

At least two coats of an exterior grade quality oil-based penetrating stain must be used over the front face of the Hermpac Bevelback and Rebated Bevelback weatherboards to protect the weatherboards and give the desired finish colour to the exterior walls. The stain must be recommended for use as a wall cladding stain by the manufacturer and must be brush or Machinecoat NZ Ltd applied. Hermpac recommends the use of oil based stains manufactured by Wood-X and Resene.

Follow the stain manufacturer's instructions at all times for application of the stain finish. To ensure a top quality paint finish:

To ensure a top quality paint finish:

1. Any sharp edges should be removed to provide a radius to aid in uniform paint film coverage.
2. Use a premium alkyd oil or acrylic based primer to envelope prime all cut ends and bare timber surfaces twice.
3. Punch nail holes and prime promptly after punching.
4. Fill holes with a suitable filler and allow to dry.
5. When filler is fully dry and cured, sand area smooth.
6. Apply one coat of an alkyd oil or acrylic based primer to sanded area and allow to fully dry before sanding lightly.
7. Ensure surface is clean and free from any chalking, dirt, dust, mould or other contaminants prior to painting top coats.
8. Apply two coats of premium high quality 100% exterior grade acrylic to surface allowing adequate time for drying between coats.

Timber is a natural product and for best results use a colour with a LRV of 40-45 or above. Please consult with us for a specific recommendation minimum for your chosen timber.

Follow the paint manufacturer's instructions at all times for application of the paint finish.

Refer to Section 4.0 for maintenance requirements.

4.0 Maintenance

Building owners are responsible for the maintenance of the Weatherboards. 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, coatings, flashings or the weatherboards must be repaired in accordance with the relevant manufacturer's instructions.

Regular cleaning (at least annually) of the surface finish with water and a mild detergent is recommended to remove grime, dirt and organic growth, to maximise the life and appearance of the cladding.

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 are well covered and penetrated with the stain.

Recoating of the paint finish will be necessary throughout the life of the cladding system. Re- coating must be carried out every 7-10 years in accordance with the paint manufacturer's instructions. When re-coating, care must be taken to ensure bottom edges are well covered and penetrated with the paint.

5.0 Health & Safety

Cutting of Hermpac Bevelback and Rebated Bevelback weatherboards must be carried out in well ventilated areas and dust masks, eye and hearing protection must be worn.