

## Vulcan Cladding – Vertical Grain

### Standard Series



#### Overview

Vulcan Cladding – Vertical Grain is created from thermally modified New Zealand plantation timber and engineered with a patented vertical grain construction for superior weathering characteristics. A fine sawn face allows a depth of grain, and optimal coating performance.

The thermal modification process and vertical grain structure means Vulcan Cladding – Vertical Grain has enhanced stability, reduced resin content, is a beautiful homogeneous brown colour, and is naturally durable so does not require any chemical preservatives.

When specified and installed in accordance with the manufacturer's instructions Vulcan Cladding systems will achieve CodeMark status for guaranteed acceptance with New Zealand building consent authorities.

Available in a limited range of architectural profiles and can be supplied factory coated in Abodo Protector – Abodo's high performance penetrating exterior oil.

The Standard Series is designed to be an affordable cladding material with visual features and defects present as part of the timber grade. For a higher aesthetic appearance with less visual features the Architectural Series is recommended.

Wood species: Thermally Modified Radiata Pine (Pinus Radiata).

Standard profiles:



WB18 135x18mm  
(115mm cover) Vertical/Horizontal  
All profiles supplied with band sawn faces.

Lengths: Mixed Length, supplied in lengths 1.2m and longer and/or Fixed Lengths at Abodo's option.

Colours: Colours presented are in Abodo's Protector coating and are indicative only. Colour may change/fade as a part of the natural weathering process.



Vulcan Nero

Vulcan Ebony

Vulcan Graphite

Vulcan Walnut

Vulcan Teak

Vulcan Natural


Vulcan Straw

Vulcan Patina

Vulcan White

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### Product specifications

Name:	Abodo Vulcan Cladding – Vertical Grain Standard Series.
Quality:	<p><b>C2LAMVG Grade/A</b> good appearance grade that combines some clear three sides product, along with product containing defects including knots, resin pockets and glue cavities individually up to 1/3rd of the board width.</p> <p>Reverse side with knots and defects allowed according to Standard Grade. The reverse face may also have skip dress present and one under-thickness lamina up to 4mm depth, provided the function of the product is not compromised ie: boards fit together correctly and will sit flat on a wall. See Abodo Appearance grade rules for full grade specification.</p> <p>NOTE: As this is a visually graded product up to 5% of the volume may be supplied as 'out of grade', allowing for variation in grade interpretation. Some grading and cutting out of defects may be required to meet customer expectations and/or requirements of the NZBC.</p>
Grade indication:	
Finish:	Fine band sawn face (some variation in the visual appearance of the finish can be expected).
Intended use:	Above ground applications for residential and light commercial buildings – wall cladding, screening, soffits, interior linings.
Durability:	Thermally modified TM230 degrees Celsius schedule. Suitable for uses described in NZS3602:2003 Table 2A 'Requirements for wood-based building to achieve a 15 year durability performance Members exposed to exterior weather conditions and dampness'. Durability Class 2 above ground (AS5604). Durability Class 1 (EN350-1). Available optionally treated for termite-prone areas.
Place of manufacture:	Grown and manufactured in New Zealand.
Insect attack:	Thermally modified pine is resistant to many wood boring insects and borers but is not resistant to termites. Additional treatment is required for termite zones.
Expected serviceable life:	30 years or more when maintained according to manufacturer's recommendations.
Warranty:	15 years against fungal decay (timber substrate only – subject to terms and conditions).
Moisture content:	Approx. 7% MC (+/-2%) at time of dispatch.
Construction:	Laminated with vertical grain orientation.
Glue:	New generation polyurethane adhesive- VOC, solvent and formaldehyde free. Exterior Type 1 - AS/NZS4364. Approved for Service Class 3 (exposed exterior applications).
Expected dimensional change in structure:	Width expansion approx 2%, length expansion approx 0.25%, thickness expansion approx 2.5% (from 7%MC to fibre saturation -variation will occur between boards).
Average density:	420kg/m <sup>3</sup> .
Fire:	Group 3 (interior). Suitable for locations >1m from boundary or <10m building height.
Hardness:	Low (2.5kN Janka).
Weight:	~11 kg/m <sup>2</sup> ('light weight cladding' NZS3604).
Thermal properties:	~0.095 W/(mK) (Thermal conductivity is reduced by 20-25% compared with radiata pine).
pH (indicative):	3.9.

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Compatibility:	Vulcan has little or no corrosiveness on most metals and can be placed in contact with most building materials. Care should be taken to separate timber from zinc. Normal PVA, PU, MUF glues and RF resins can be used.
Coating:	Vulcan will take most stains, penetrating oils and paints well, though up-take of coating is generally higher than normal. At least one coat must be applied all sides including back face, and ends, and at least two coats to the front face and edges with Abodo Protector or other approved proprietary wood stain or paint system.  Available factory pre-coated (minimum order quantity of 225LM applies).
Certification:	FSC®-certified mixed, No.: SGS-COC-004944.  Environmental Product Declaration (EPD) registration number: S-P-01543.
Living Building Challenge:	Declare Certified, Red List Free.

### Fixing overview

- Timber framing is to be in accordance with NZS3604. Studs at max 600mm centres. If installing horizontal weatherboards nogs must be spaced at max 800mm centres or otherwise according to proprietary wall system requirements. If installing vertical weatherboards nogs must be spaced at max 480mm centres to allow fixing of cavity battens, or max 800mm centres if using structurally fixed CBH45x45mm cavity battens or otherwise according to proprietary wall system requirements.
- Fix cladding over a water proof, breathable building wrap, rigid air barrier or other suitable waterproof substrate in conformance with NZBC E2/AS1.
- A cavity system is recommended with minimum 45x18mm H3.1 battens (a cavity is required for CodeMark certification).
- Horizontal cavity battens should be castellated (notched) and bevelled or Cavibat fluted polypropylene to allow water run-off in service.
- Structurally fixed H3.2 timber cavity battens are allowed, provided battens are fixed with stainless steel flat head nails or 10g screws staggered at min 300mm centres (when using a 20x45mm cavity batten) or min 600mm centres (when using a 45x45mm cavity batten) and with min 40mm fixing penetration into stud.
- Fix boards either vertically or horizontally as appropriate to the profile type specified at the following maximum batten spacings:
  - 480mm centres for vertically fixed cladding or
  - 600mm centres for horizontally fixed cladding
- High quality hot dipped galvanised fixings (secret fixing only) or stainless steel fixings (when face fixing) must be used. Stainless steel fixings must be used in sea spray zones in all cases. Note: Silicone bronze/copper fixings can be subject to oxidation during weathering, resulting in discolouration and weeping around fixing head.
- For WB18 secret fix profile, use flat head ring shank nails or self drilling self countersinking head screws so as to achieve 30mm penetration into stud, or 30mm into the stud and batten combined (when using a structural cavity batten only) and positioned 12mm from the tongue edge. Screw fixing is recommended.
- Fixings at ends of boards must be at least 12mm from edge, and must be pre-drilled before applying fastener.
- Ensure 2mm expansion gap to back of boards.
- All exposed end grains and notches must be sealed using Abodo's Protector End Seal or equivalent wax sealer.
- Joins between board ends must be made over battens only, using a 35degree mitre, and application of sealant at the join eg: Sikaflex 11FC.
- For cavity systems use perforated cavity base closer flashing at base board to allow drainage, air flow and keep out vermin.

## Vulcan Cladding – Vertical Grain Standard Series

### Fixing overview

- Cladding must finish 100mm above paved surface or 175mm above un-paved surfaces. Base of cladding must not sit directly into flashings or other cladding materials such as masonry. Minimum 5mm gap must be left to flashings allowing fall to shed water away from the wall cavity.
- Use Abodo finishing mouldings backed by hemmed corrosion resistant internal flashings as required, corners, windows, doors and where cladding meets soffit. Fix mouldings with 40mm stainless flat head ring shank nail (hand driven) at max 450mm centres.
- At least one coat of Protector oil or proprietary specified wood stain must be applied to all sides prior to installation and then a further one or two coats applied once boards are fixed in place according to manufacturer's instructions.

### Fixing details:

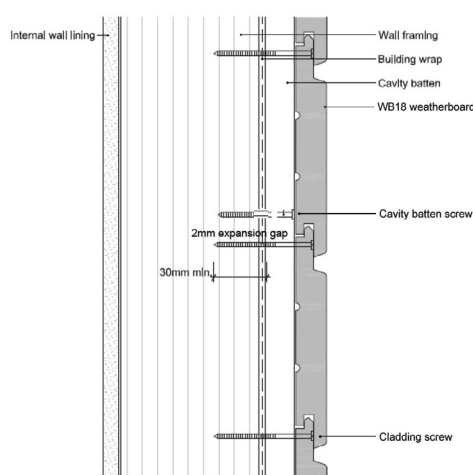
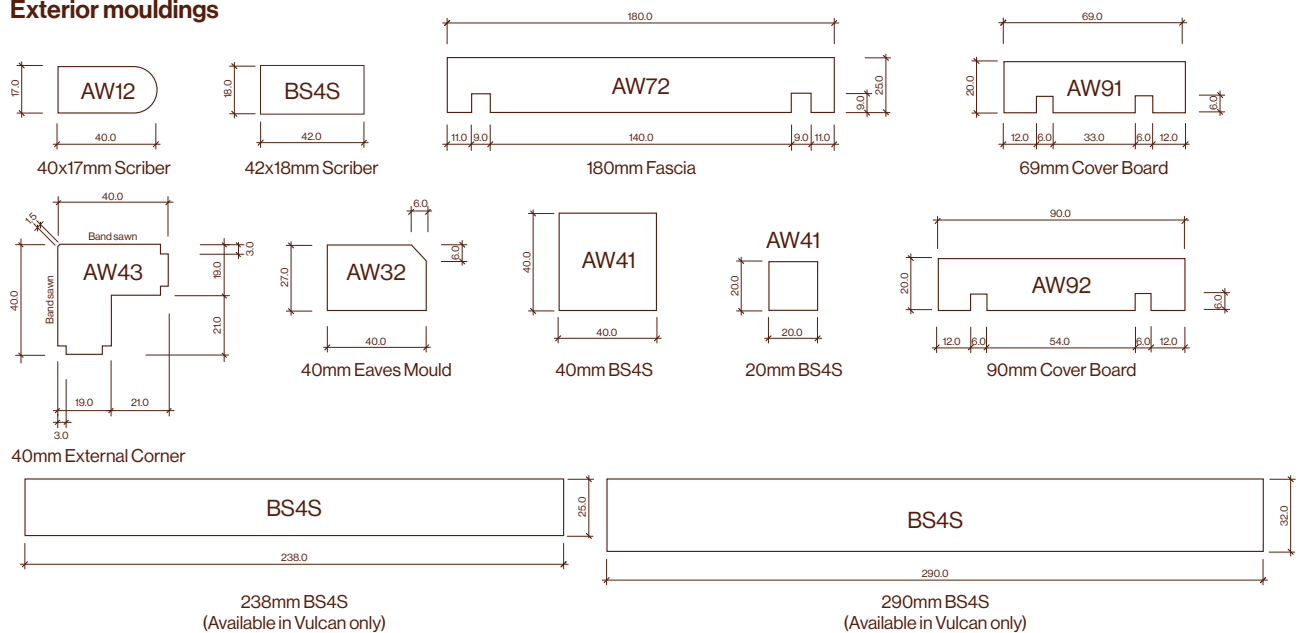


Fig 1 – WB18 Secret Fix

Note: The adjacent is an overview only.

Please refer to CodeMark Weatherboard Cladding Manual CWB-M-130925 and detail drawings at: [abodo.co.nz/resources](http://abodo.co.nz/resources) for detailed installation information prior to specification or commencement of construction.

### Exterior mouldings



Note: Other profiles are available and should be specified according to the system being used - please refer to CodeMark Weatherboard Cladding Manual CWB-M-130925 for more details. Exterior mouldings may be supplied as Vulcan C1LAMVG Grade.

## Vulcan Cladding – Vertical Grain Standard Series

### Maintenance

- Wash down every 12 months with gentle detergent, warm water and soft brush. High pressure water blasting is not permitted.
- If possible it is recommended to apply a further coat of oil after approx 12 months of weathering.
- Make a maintenance check every two summers. Check all weatherboards, junctions, flashings, mouldings and replace or remediate as required to maintain weather tightness of the cladding system.
- For heavily soiled or mouldy areas use Rejuvenator or similar timber cleaner, apply active mouldicide and re-coat with penetrating oil.
- Re-coat every 2-4 years or as required to maintain colour and integrity of coating. Re-coat period may be longer or shorter depending on climatic conditions and/or positioning of cladding to the sun. Preparation with Rejuvenator or other similar oxalic timber cleaner is recommended prior to coating.

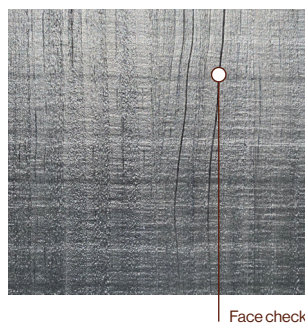
### Lightening of the timber:



We cannot guarantee against wear or color changes to any products which result from weather, sun, wind and/or the natural aging process of the wood.

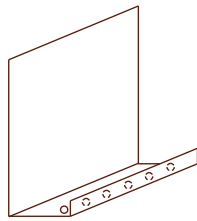
### Surface checking:

- Checking (cracks) may be observed on the face and ends of Vulcan timber. Checks are acceptable to install. Checking may become more apparent as the material weathers naturally in place. Some dimensional movement of boards is also possible including slight cupping and lifting at the ship lap area. These are not defects and are considered a natural part of this wood product. Maintenance with a coating and thorough sealing of end grains and notches with Abodo's Protector End Seal or equivalent wax sealer will improve long term weathering characteristics.

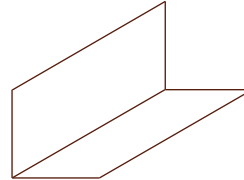


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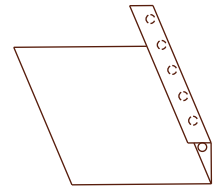
### Abodo flashings



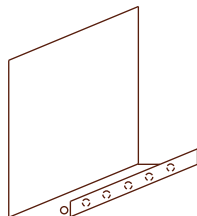
AWF1 Abodo 20mm WB10  
Horizontal Base  
Cavity Closer  
S/Steel 3m  
(for use with horizontal WB10 only)



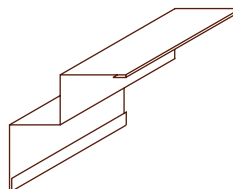
AWF4/ AWF2 Abodo  
Unhemmed Corner Flashings  
S/Steel 100x100 mm/  
120x120mm 3m



AWF3 Abodo Window  
Jamb Flashing  
S/Steel 3m



AWF6 Abodo 45mm WB10  
Horizontal Base  
Cavity Closer  
S/Steel 3m  
(for use with horizontal WB10 only)



AWF5  
W flashing  
Internal corner

### Accessories

#### Abodo Protector, 4L, 10L:



#### Abodo Protector – End Seal, 1L:



## Vulcan Cladding – Vertical Grain Standard Series

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Abodo Stainless Steel Cladding Screw 4.0 x 45mm or 4.5 x 65mm:



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