



Vulcan® Cladding – Vertical Grain

○ Architectural Series



New Growth Feature Timbers

○ 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 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 manufacturers instructions Vulcan Cladding systems will achieve CodeMark status for guaranteed acceptance with New Zealand building consent authorities.

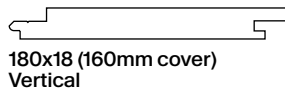
The Architectural Series is available in a wide range of architectural profiles and can be supplied factory coated in Abodo Protector – Abodo’s high performance penetrating exterior oil.

○ Wood Species

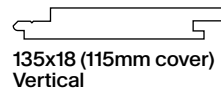
Thermally Modified Radiata Pine (Pinus Radiata).

○ Standard Profiles

○ WB12

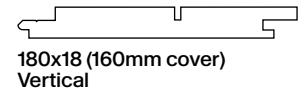


180x18 (160mm cover)
Vertical

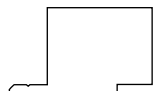


135x18 (115mm cover)
Vertical

○ Finline WB12F



180x18 (160mm cover)
Vertical



90x60 (70mm cover)
Vertical

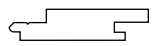


90x40 (70mm cover)
Vertical

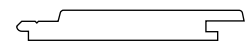
○ WB18



180x18 (160mm cover)
Vertical/Horizontal

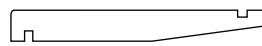


90x18 (70mm cover)
Vertical



135x18 (115mm cover)
Vertical/Horizontal

○ Bevelback AW62



180x18 (148mm cover)
Horizontal

All profiles are supplied as standard with bandsawn face. Brushed finish available on request subject to price premium.

ABODO



Vulcan® Cladding – Vertical Grain

○ Architectural Series

○ Lengths **Mixed Length:** Supplied in lengths 1.2m and longer and/or Fixed Lengths at Abodo's option. Refer to Mixed Length Specification available on the Abodo website.

Fixed Length: Available in 3.0, 3.6m, 4.2, 4.8m and 5.4m. Subject to availability and lead time.

○ Colours **Colours presented are in Protector Water Borne and are indicative only. Colour may change/fade as a part of the natural weathering process. Coating performance on brushed finish may be lower compared with bandsawn finish.**

Please refer to the Iron Vitriol Technical Data Sheet or the Sioo:x Wood Protection Manual for further information on these specialist coatings.

Bandsawn Range:



Brushed Range:





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○ Architectural Series

Product Specifications

- Name Abodo Vulcan Cladding – Vertical Grain Architectural Series.
- Quality **Select Grade (C1LAMVG)**/Front face and edges virtually free of any defects but with one edge knot and one small face defect allowed per piece in 20% of boards only. Back side with some defects allowed. For complete grade specification please refer to Abodo Appearance Grade rules.
- Finish Fine bandsawn face. Brushed finish available optionally on request (some variation in the visual appearance of the finish can be expected).
- Durability Thermally modified – 230 degrees 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 1 (EN350-1), Class 2 above ground (AS5604).
- Place of Manufacture Grown and manufactured in New Zealand.
- Insect Attack Thermally modified pine is resistant to many wood boring insects but is not always resistant to termites. Preservative treatment is required for termite zones.
- Intended Use Intended for above ground use in residential and light commercial buildings with risk score of 20 or below as per 'Weather tightness risk matrix' in E2/AS1.
- Serviceable Life 30 years or more when maintained according to manufacturer's recommendations.
- Warranty 25 years against fungal decay (Pro rata subject to terms and conditions. Available on the Abodo website).
- Moisture Content Approx. 7% MC (+/-2%) at time of dispatch.
- Construction Laminated with vertical grain orientation.
- Adhesive 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).
- Density ~420 kg/m³.
- Fire Group 3 (Type A or Group 1S specifications may be achievable on some profiles, please contact Abodo for further information).
- Hardness Low (2.5kN Janka).
- Weight ~7.56 kg/m² – 18mm thickness boards ('light weight cladding' NZS3604). Weight will increase by approximately 30% when wet fibre saturation.
- Thermal Properties ~0.095 W/(mK) (EN 12667).
- pH (Indicative) ~3.9.



Vulcan® Cladding – Vertical Grain

○ Architectural Series

- Curved Walls (Min Radius) WB18/12 135x18 – 2.3m, WB12 90x40, WB12 90x18 – 0.8m.



- Compatibility Vulcan has little corrosiveness on most metals (separation required to zinc) and can be placed in contact with most building materials Normal epoxy, PU, MUF glues and RF resins can be used – please check specific glue requirements considering properties of this timber including low moisture content.

- 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 at least two coats to the front face and edges with Abodo Protector or other approved proprietary wood stain. All cut ends are to be sealed with Abodo End Seal or other approved end seal.

Optionally for optimal coating performance on bandsawn finish (especially dark colours) apply a further coat of oil after 12 months of weathering. This can increase re-coat time by up to 2 years in many cases.

For brushed finish a third coat is required between 1-12 months after installation.

Available factory pre-coated (minimum order quantity of 225LM applies).

Refer to coating technical literature for each specific coating type: Protector TDS, Iron Vitriol TDS, Sioo:X Wood Protection Manual.

- Patent NZ Pat. 601245.
- Certification FSC®-certified mixed, No.: SGS-COC-004944. Declare Certified – Red List Free.
- NZBC Compliance CodeMark Certified cladding system – certificate number CMNZ70046.
- Environmental Product Declaration (EPD) Registration Number S-P-01543.
- Green Building Points Greenstar – 2.5pts /Homestar – 2pts + 1 innovation pt.

- Product Handling**
 - Weatherboards and accessories must be kept clean dry, under cover and out of the weather prior to installation.
 - Timber must be stored horizontally on bearers at least 100mm off the ground.
 - Extra care must be taken during installation so as not to damage the factory finish of the boards.
 - Wear dust mask, eye protection when cutting timber.
 - Do not burn treated timber. Dispose of off-cuts in lined land fill or an approved furnace.
 - Wear clean gloves when handling to avoid marking the timber surface and to protect against splinters.

- 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, or max 800mm centres if using structurally fixed



Vulcan® Cladding – Vertical Grain

○ Architectural Series

CBH-45x45mm 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 beveled 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 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 weatherboards or
 - 600mm centres for horizontally fixed weatherboards
- High quality hot dipped galvanised fixings (secret fixed profiles only) or stainless steel fixings (face fixed profiles) 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 Bevelback, Vertical shiplap and Rusticated weatherboards, use rose or pentagon head annular groove nails (hand driven) to achieve minimum 30mm penetration into stud or stud and batten combined (when using a structurally fixed cavity batten) and positioned approximately 10mm beyond the over-lap.
- For WB18 or WB12 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. Punching/puttying of fixings is not required. 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 end grains and notches must be sealed using Abodo's Protector End Seal or equivalent wax sealer, or Sioo:x End Grain Sealer in the case of Sioo:x coated boards.
- Joins between board ends must be made over battens only, using a 35 degree mitre, and application of sealant at the join e.g. Sikaflex 11FC.
End-matched boards may be joined off-batten with joins off-set by minimum 100mm. Apply flexible sealant eg Sikaflex 11FC or equivalent to the join. For vertical cladding ensure the tongue end is installed facing upwards.
- For cavity systems use perforated cavity base closer flashing at base board to allow drainage, air flow and keep out vermin.
- 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.



Vulcan® Cladding – Vertical Grain

○ Architectural Series

- 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 must be applied all sides including back face, and at least two coats to the front face and edges with Abodo Protector or other approved proprietary wood stain. All cut ends are to be sealed with Abodo End Seal or other approved end seal.

For optimal coating performance on bandsawn finish (especially dark colours) apply a further coat of oil after 12 months of weathering.

For brushed finish a third coat is required between 1-12 months after installation. For other specialty coatings such as Sioo:x refer to specific literature.

Fixing Details:

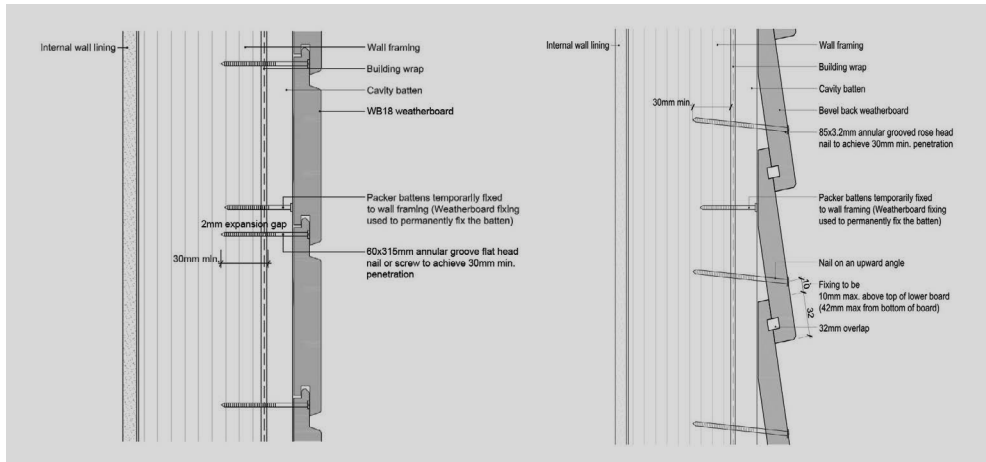


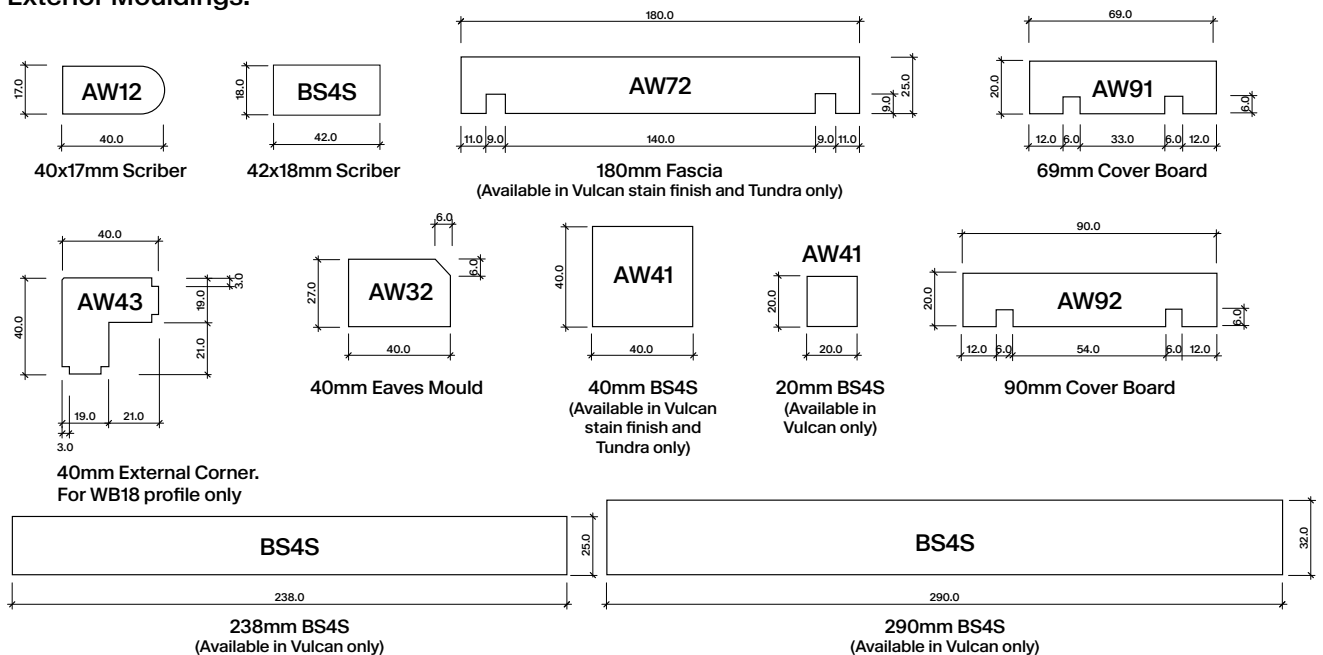
Fig 1: WB18 Secret Fix

Fig 2: Bevel Back Face Fix

Note: The above is an overview only.

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

Exterior Mouldings:

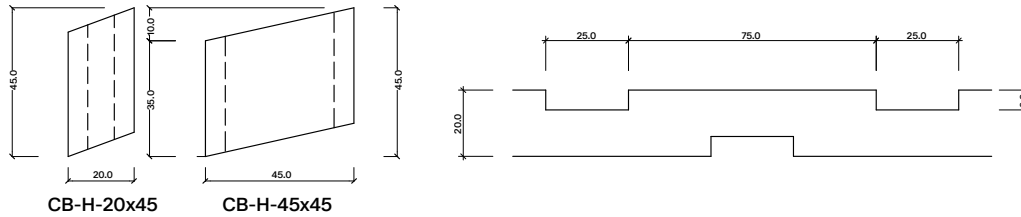




Vulcan® Cladding – Vertical Grain

○ Architectural Series

Horizontal Castellated Cavity Battens:



Maintenance

- Wash down every 12 months with gentle detergent, warm water and soft brush.
- Optionally apply a further coat of oil after approx 12 months of weathering this will extend time between re-coats. For brushed finish apply a third coat 1-12 months after install.
- 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. For Sioo:x coated timber refer to specific maintenance information.

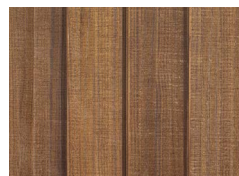
○ Lightening of the Timber



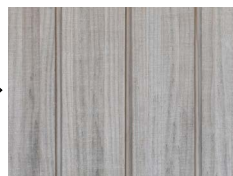
Vulcan Teak
As delivered



Vulcan Teak
Weathered exterior
install



Vulcan Sioo:x
As delivered



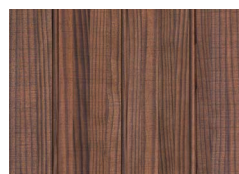
Vulcan Sioo:x
Weathered exterior
install



Vulcan White
As delivered



Vulcan White
Weathered exterior
install



Iron Vitriol
As delivered



Iron Vitriol
Weathered 10 months
exterior install

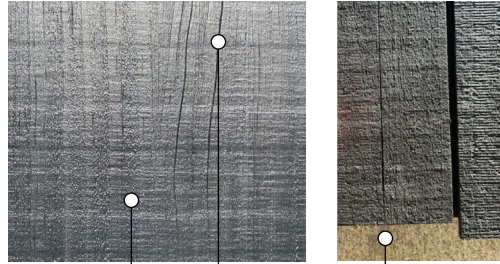
We cannot guarantee against wear or color changes to any products which result from weather, sun, wind and/or the natural aging process of the wood.



Vulcan® Cladding – Vertical Grain

○ Architectural Series

- 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. Fibre pull at laminated glue lines is also possible. These are not defects and are considered a natural part of this wood product. Maintenance with a coating and thorough sealing of end grains with end grain sealer will improve long term weathering characteristics.



Laminated
glue seams

Face
check

End split/
Glue pull

○ Iron Vitriol

Exterior:

- With a clear top-coat the finish will lighten on exposure to the weather over time eventually settling to a gun metal grey.
- Maintain using the same method as Protector.
- As a guide, a further top coat should be applied after 12-18 months weathering and then every 2-4 years after that depending on exposure to the weather. Re-coat with Protector clear or Protector Pigment to change colour.
- Clean with Rejuvenator Wood Cleaner prior to reapplying top coat.

Interior:

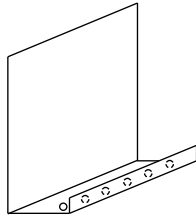
- Clean with soft cloth as per coating manufacturer's instructions.
- Touch up top-coating as required.



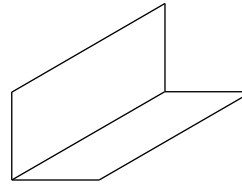
Vulcan® Cladding – Vertical Grain

○ Architectural Series

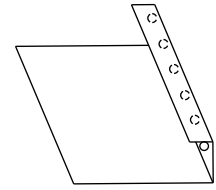
Abodo Flashings



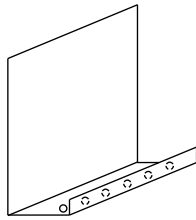
AWF1 Abodo WB18
20mm cavity closer.
Measures 28x71mm.
For WB18 horizontal
cladding only.
S/Steel 3m.



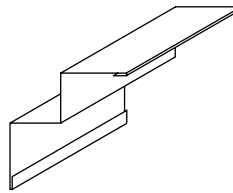
AWF4/AWF2 Abodo
Unhemmed Corner
Flashings S/Steel
100x100mm/
120x120mm 3m.



AWF3 Abodo Window
Jamb Flashing.
S/Steel 3m.



Abodo WB18
45mm cavity closer.
Measures 53x71mm.
For WB18 horizontal
cladding only.
S/Steel 3m.



AWF5
W flashing
Internal corner.

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○ Architectural Series

Accessories

Abodo Protector, 4L, 10L:



Abodo Protector – End Seal, 1L:



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



Note: Abodo weatherboards require a minimum 30mm embedment into framing or structural batten and framing combined.