



Product Technical Statement

Issued by : Health Based Building

HT51 Shiplap Cladding MCA Treated and Earthen Plus. Thermally Modified. Installed Vertically & Horizontally.

This PTS Technical Manual is based on best practice design principles inclusive of structural design, materials, risk management, fixings, installation, coatings, and maintenance working in harmony, to ensure long serving performance as a built environment. Cladding performance, appearance and durability can be impacted by individual design preferences. Any attempt to alter the design principles represented in this document must be represented to Health Based Building for comment.

NOTE: Where acrylic paints or oil coatings are to be applied to Earthen radiata profiles topcoat colours must have the rating LRV45 or higher. Dark colours can encourage resin bleed and distortion leading to surface cracking, cupping, and paint failure. Application of acrylic paint or oil coatings involving colours other than those recommended by Health Based Building will void warranties connected to this product.

NOTE: Earthen HT51 Cladding is represented via an alternative solution pathway to consent. Supporting information confirming history of use and compliance with NZ3604 profiles is available via the document at link

[AlternativeSolutionVerticalWeatherboard_v1.0_23.8.22.pdf](#)

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PRODUCT FEATURES AND BENEFITS :

- Proven NZ3604 compliant profile.
- Can be installed to 20mm non-structural cavity battens or 40mm structural cavity battens.
- Can be installed using nail or screw fixings.
- Made in New Zealand.
- Precision Solid Timber Profile.
- Attractive Pricing.
- Rotational Surface Exfoliation.
- Low VOC High Performance Foreverbreathe Plant-Based Oil Coatings.
- CO² Capture.
- Extensive Colour Range.
- Low Maintenance.
- Available New Zealand Wide.



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1. PRODUCT TECHNICAL STATEMENT.

This PTS follows the format proposed by MBIE in their document product technical statement tool.

It is issued by Health Based Building



1. Product Description : HT51 shiplap cladding, MCA treated and Earthen Plus thermally treated.

2. Scope of Use : external environment above ground, with a (seismic) locality factor (Z) of up to 0.42 (Upper Hutt), in a temperate climate; the system is limited to use for residential housing including Class 1 and Class 2 type construction, i.e. stand-alone houses and multi-apartment dwellings, up to three stories high.

3. Compliance with the NZBC : Meets the following requirements of the NZBC :

4. Treatment : Earthen Treatment Micropro H3.2
[MicroProTreatmentTechnicalInfo_v.1.0_26.7.21.pdf](#)

5. Earthen Plus Treatment Thermally Modified Class 1 (EN335) :
[EarthenPlusExt.pdf](#)

**6. Structural Castellated Batten Wind Zone :
Low - Medium - High :**
Earthen H3.2 40mm x 40mm fixed at max 600mm centres using 1 / 90 x 3.15 SS Nail. In Medium - Extra High Wind Zones use 2 / 90 x 3.15 s.s. nails at max 600mm centres :
[EngineeringStatementPS1Earthen40mmCastellatedBatten.pdf](#)

7. Structure - B1 : Meets the requirements of B1.3.1, B1.3.3 (b), (p), (q) of Clause B1.

8. Durability - B2 : Meets the durability performance requirements of section B2.3.1 (a) of Clause B2.

9. External Moisture - E2.3.2 : Prevents the penetration of water that could cause undue dampness.

10. Fire Performance - C : Is classified as combustible.

11. Hazardous Building Materials - F2 3.2 : Will not present a health hazard when handled as per its technical specifications.

12. Installation : Must be installed in accordance with Technical Specification available at :
[HT51ShiplapWeatherboardTechnicalManual_19-12-23.pdf](#)

13. Warranty : Product warranty of 15 years when installed as per the technical specification.

14. Considerations : Can be installed to timber framed or steel framed walls. Can be installed to 20mm cavity battens or 40mm structural cavity battens. Can be installed over a rigid air barrier or flexible frame wrap.

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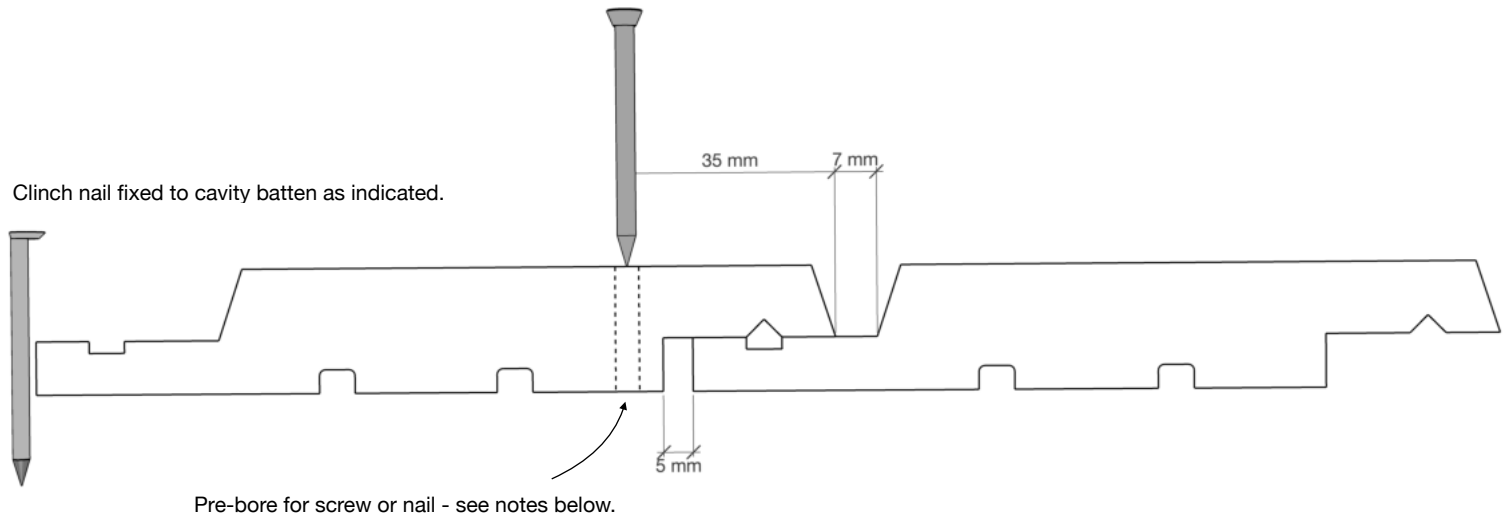
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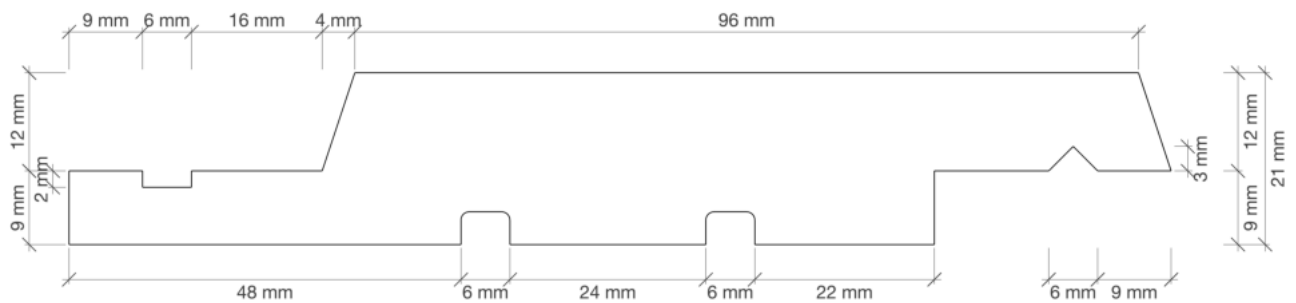
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When installed according to the manufacturer's instructions, will comply with Performance Clauses B1.3.1, B1.3.3 (b), (p), (q), B2.3.1 (a), E2.3.2 and F2.3.1 of the NZBC.

2. HT51 PROFILE MEASUREMENTS PROFILE LAYOUT & FIXING POSITIONS HORIZONTAL & VERTICAL INSTALLATION.



HT51 PROFILE MEASUREMENTS.



- Pre-boring of the profile when nail fixing requires a 3.5mm drill bit.
- Pre-boring of the profile when screw fixing requires a 5.5mm drill bit. Pre-boring remains a requirement to ensure the screw is focussed on clamping.
- Reference nail type for installation over a 40mm structural cavity batten. [Earthen and earthen-plus cladding/cladding-nail-silicon-bronze](#)
- Clinch Nail for underlap - LSSCLINCH40AG500G 316 Stainless Steel - ECKO Fastening Systems
- Reference nail type for installation over a 20mm cavity batten. [Earthen and earthen-plus cladding fixings](#)
- Reference 10-gauge x 65mm SST or C3 coated screw for installation over a 40mm structural cavity batten.
- Reference 10-gauge x 75mm SST or C3 coated screw for installation over a 20mm cavity batten.
- Clinch Nail for underlap - LSSCLINCH50AG500G 316 Stainless Steel - ECKO Fastening Systems



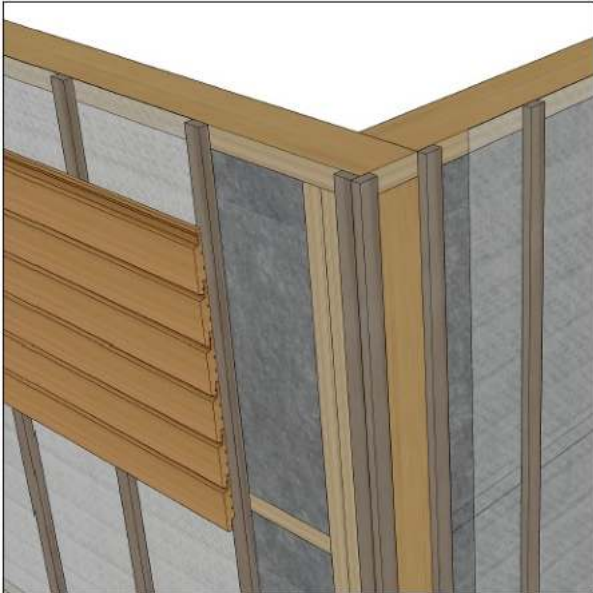
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3. CONSTRUCTION DETAILS.

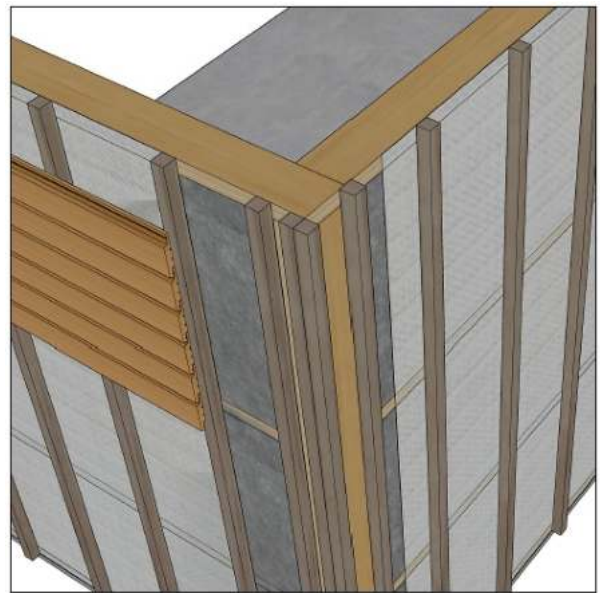
Installation vertically or horizontally over 20mm cavity battens or 40mm structural cavity battens.

Details show installation over a flexible frame wrap.



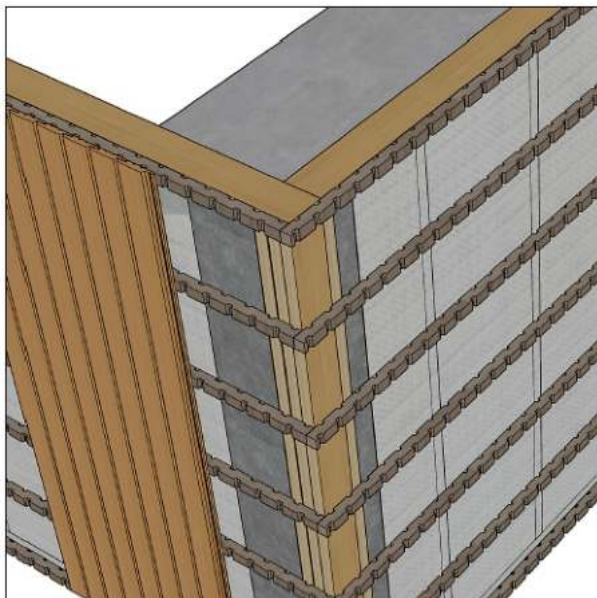
Horizontal Installation

- Cavity battens - 20x40mm
- Studs - 400mm c/c
- Dwangs - 760+mm centres
- Cavity battens - 400mm centres



Horizontal Installation

- Cavity battens - 40x40mm structural
- Studs - 400mm c/c
- Dwangs - 760+mm centres
- Cavity battens - 400mm centres



Vertical Installation

- Cavity battens - 40x40mm castellated
- Studs - 600mm c/c
- Dwangs - 760+mm centres
- Cavity battens - 400mm centres



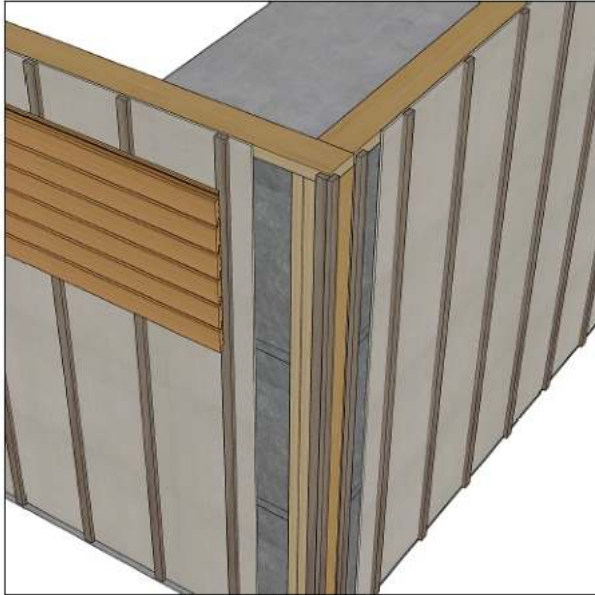
Vertical Installation

- Cavity battens - 20x40mm castellated
- Studs - 600mm c/c
- Dwangs - 400mm centres
- Cavity battens - 400mm centres

3. CONSTRUCTION DETAILS.

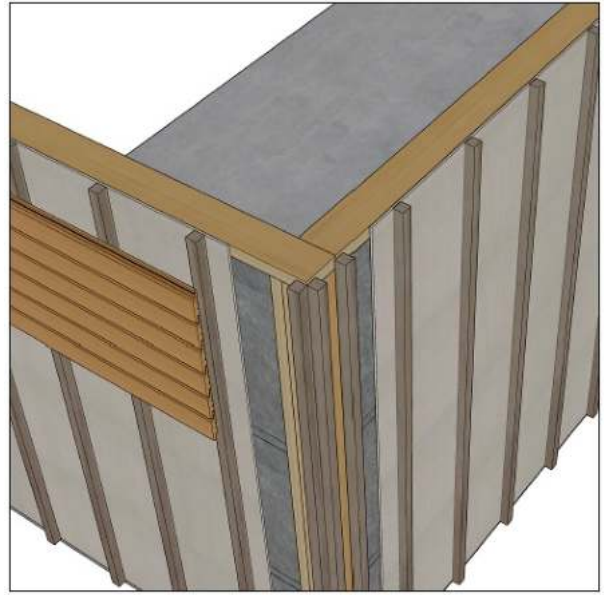
Installation vertically or horizontally over 20mm cavity battens or 40mm structural cavity battens.

Details show installation over Magnum® Board Rigid Air Barrier.



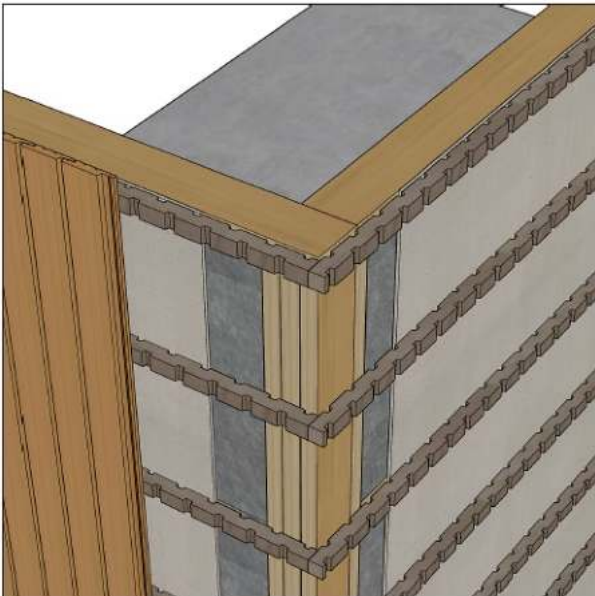
Horizontal Installation

- Cavity battens - 20x40mm
- Studs - 400mm c/c
- Dwangs - 760+mm centres
- Cavity battens - 400mm centres



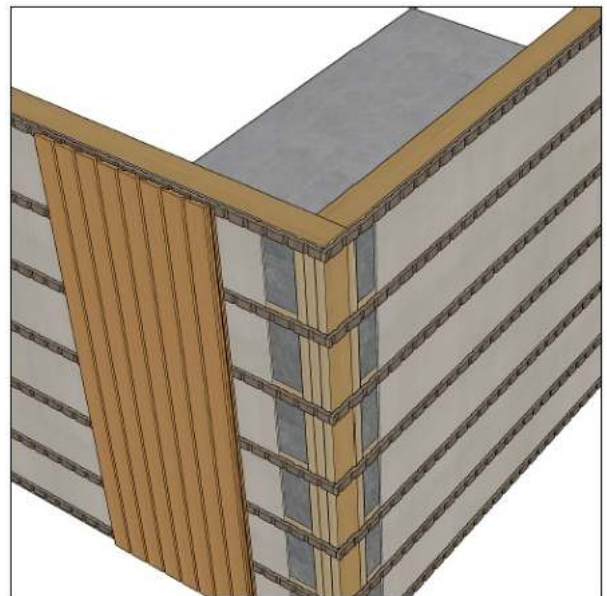
Horizontal Installation

- Cavity battens - 40x40mm structural
- Studs - 400mm c/c
- Dwangs - 760+mm centres
- Cavity battens - 400mm centres



Vertical Installation

- Cavity battens - 40x40mm castellated
- Studs - 600mm c/c
- Dwangs - 760+mm centres
- Cavity battens - 400mm centres



Vertical Installation

- Cavity battens - 20x40mm castellated
- Studs - 600mm c/c
- Dwangs - 400mm centres
- Cavity battens - 400mm centres



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4. COATINGS.

Earthen and Earthen Plus can be painted using large format acrylic paints such as WattyI, Dulux and Resene. Oil coating required Foreverbreathe Oil reference

[ExteriorOil](#)

5. GRADING & LENGTH SPECS.

The length specification in natural timber cladding product supplied to HBB can vary in length from 2.4m – 5.4m and in the volume of each length per pack of timber HBB receive. This outcome is established via the volume of log and log dimension available to the sawmill at the time HBB place orders.

[EarthenPlusExt.pdf](#)

6. STORAGE & HANDLING.

Earthen & Earthen Plus must be stored on a well-ventilated level surface, on bearers at least 250mm off the ground or substrate such as concrete. Timber must be protected from weather, direct sunlight, and moisture prior to installation. Timber must be factory pre-coated, or site coated to all edges, back and face before installation. Do not drag sharp edges across the face of the product. This can establish indentations which establish a darker appearance than the surrounding timber when oil coated.



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