

Product Description

The Nu-Wall® cladding system (Vertical on Cavity) is a cavity-based, inter-locking aluminium weatherboard system. It is designed to be used as an external wall cladding system for residential and light commercial type buildings where residential construction techniques are used.

Nu-Wall® weatherboards are manufactured from 6063 T5 or 6060 T5 aluminium alloy and are produced in a variety of profiles with effective cover ranging from 100 mm to 200 mm. The extruded aluminium profiles are supplied factory prefinished in a wide range of powder coat or anodised colours. When installed, the cladding is effectively 14.5 mm thick. Nu-Wall® weatherboards are supplied in 6 m lengths as standard but can be supplied up to 9.0m long (powder coat).

Nu-Wall® weatherboards are characterised by a universal jointing system that allows various profiles and flashings to be used seamlessly across the profile range. The boards are fastened using a proprietary hidden fixing clip @600mm centres and are complimented by a range of universal ancillary profiles used for flashing the cladding and rendering it watertight.

Compliance with the New Zealand Building Code (NZBC)

Nu-Wall® is considered an alternative solution under the NZBC, however when installed vertically over a drained & vented cavity, Nu-Wall® can demonstrate compliance within the scope of E2/AS1

The Nu-Wall® cladding system (Vertical on Cavity) if designed, installed, and maintained in accordance with the statements and conditions of our BRANZ #870 appraisal, will meet the following provisions of the NZBC:

- Clause B1 STRUCTURE: Performance B1.3.1, B1.3.2 and B1.3.4.
- Clause B2 DURABILITY: Performance B2.3.1 (b) 15 years and B2.3.2.
- Clause E2 EXTERNAL MOISTURE: Performance E2.3.2.
- Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1.

MBIE Building Product information (BPIR) declaration.

The Nu-Wall cladding BPIR declaration (September 2023) can be viewed on www.nuwall.co.nz
Please consult Nu-Wall® for all additional enquiries.

Fire compliance

Nu-Wall weatherboards are composed entirely of aluminium and are therefore defined as non-combustible, as per NZBC Acceptable Solution C/AS2 Definitions. When Nu-Wall weatherboards are uncoated or have a directly applied surface finish of no more than 1 mm in thickness, they can be used within 1 m of the relevant boundary. This meets the requirements of Paragraph 5.4 of NZBC Acceptable Solution C/AS1 and Paragraph 5.8.2 a) of NZBC Acceptable Solution C/AS2.

Scope

The Nu-Wall® cladding system (Vertical on Cavity) has been appraised as an external wall cladding for buildings within the following scope:

- The limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1
- A risk score of 0-20, calculated in accordance with NZBC Acceptable Solution E2/AS1,
- Wind Zones up to, and including, Extra High to a maximum ultimate limit state (ULS) of 2.5 kPa.

Nu-Wall® can make available the following evidence to support the above statements.

- BRANZ - Appraisal 870
- BRANZ (ST0847/1) Seismic P21 racking test
- BRANZ (ST12795-01-1) Face load test for Mono 400 which provides for a ULS of 5.83 kPa
- NZS4284 (TR14-15) Commercial face load test which increases the maximum ULS to 3.6 kPa
- BRANZ EM7 E2/VM2 test which permits product to be used on structures up to 25m in height (3.6Kpa) as well as seismic racking up to 15mm
- BRANZ (ST1234-001-02) AliBat aluminium structural cavity batten face load test which increases the maximum ULS for the cladding to 4.5kPa when used in conjunction with AliBat.

Limitations of use

- Nu-Wall® is considered an alternative solution under the NZBC
- Nu-Wall® cladding system (Vertical on Cavity) can only be installed on vertical, flat surfaces.
- The Nu-Wall® cladding system- Vertical on Cavity is appraised for use with aluminium and UPVC window and door joinery that is installed with vertical jambs and horizontal heads and sills.

Design considerations

- Timber wall framing behind the Nu-Wall® cladding system (Vertical on Cavity) must meet all requirements in NZBC Acceptable Solution B2/AS1.
- Installed Nu-Wall is approx. 7 kg/m² and is considered a light wall cladding in terms of NZS 3604.
- An important consideration is that the Nu-Wall® BRANZ appraisal relates to the system of installation (Vertical over Cavity), not any specific profile.
- Studs must be at maximum 600 mm centres with nogs/dwangs fitted flush between the studs at maximum 600 mm centres for structural fixing of the weatherboards.
- The cladding profiles are fixed using a proprietary fixing bracket at minimum 600mm centres.
- Ancillary trims and flashings are generally two-piece assemblies, designed to snap-fit together, concealing all cut ends of the cladding profiles. A completed installation exhibits no visible fixings.
- Standard installation details are available for downloading from our website
<https://nuwall.co.nz/technical-resources/>

Environmental

Nu-Wall® weatherboards are manufactured from 6063 T5 or 6060 T5 aluminium alloy and will exceed the 15-year durability requirement of B.2.3.1(b). As such Nu-Wall® products can be used in all exposure zones detailed in NZS3604 up to and including Zone D. Specific finish (powder coat and anodised) warranty requirements do apply for certain environmental zones such as industrial and Geothermal.

Please consult Nu-Wall® for further information

EPD

In August 2024 Nu-Wall published 4 EPD's which are available to view on our website

<https://nuwall.co.nz/sustainability/#nuwall-epd>

Sustainability and waste reduction

Approximately 80% of the aluminium used to produce Nu-Wall® profiles is sourced from the New Zealand aluminium scrap market, which significantly reduces landfill construction waste.

At the end of a building's life the Nu-Wall® cladding system can be fully recycled. Recycling enables recovery of most of the energy used to produce the aluminium and has an additional positive impact on reducing construction waste.

Maintenance

The benefit of a powder coated aluminium cladding solution is its low maintenance requirement. Depending on the location and exposure zone, maintenance is generally limited to an annual washing regime that consists of washing of the cladding with a mild detergent and power hose.

The Nu-Wall® cladding system (Vertical over Cavity) is expected to have a serviceable life ranging from 15 to 50 years provided the system is maintained – refer table 1 of the BRANZ appraisal.

Powder coating maintenance guidelines:

<https://www.specifyinterpon.com.au/wp-content/uploads/interpon-care-and-maintenance.pdf>

<https://duluxpowders.co.nz/information/care-maintenance/>

Please consult Nu-Wall® for all additional maintenance enquiries

Installation Support

Nu-Wall provides a free in person training service to customers in the greater Auckland region and video support for nationally based customers. Please refer to our General Product Statement (GPS) and consult the Nu-Wall technical team for installation assistance. www.technical@nuwall.co.nz

Technical Support

Nu-Wall® have an extensive library of technical resources and services to support the design and construction industry. These include:

- Compliance documentation
- Full CAD library
- 3D construction assembly videos
- Design advice and detail peer review
- On site training

Please refer to the Nu-Wall® website <https://nuwall.co.nz/technical-resources/> for all updated technical literature which must be read in conjunction with BRANZ appraisal 870.

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