Architecturally inspired. Performance proven.

Nu-Wall® Cladding
General Product Statement (GPS)

Please reference the respective BRANZ appraisals and the Nu-Wall® Cladding Product Technical Statement (PTS) in tandem with this document

1. Description

Nu-Wall® is an extruded aluminium weatherboard system offering a choice of twenty different main profiles for use on new construction or re-cladding.
It is suitable for residential or commercial works as exterior cladding for the entire structure, or in combination with other cladding products. Nu-Wall® is also suitable for use in interior applications.

2. Specifiers

This document should be used in conjunction with published specification drawings which are available for download in various formats on www.nuwall.co.nz The standard specification drawings cover general Nu-Wall® detailing when installing onto timber framing under NZS3604 requirements. Nu-Wall® can also be installed over steel framing and other substrates, including over-cladding.
Nu-Wall® technical team can assist with detailing of all installation variations and junctions with other claddings.

Please refer to the following documents for further advice:

- **BRANZ** appraisal
- Nu-Wall® Product Technical Statement (PTS's)
- Nu-Wall® Colours and Textures Guide

a) Resources for Specifiers

Nu-Wall® Cladding Ltd maintain extensive technical and compliance resources relating to design/detailing and installation procedures. These are all available on our website www.nuwall.co.nz

b) Designing to cladding module sizes

For Nu-Wall® boards in the Vertical orientation it is not a requirement that windows, and doors be positioned to align with the module sizing/cover of the profile selected. Boards and jamb flashings are cut and flashed around the window irrespective of its location.

For Nu-Wall® boards in the Horizontal orientation, Installation of cladding around window head and jamb flashings will be greatly facilitated if window & door heads are planned to align with a full board and it is likely a neater finished will be achieved.

c) Design responsibility

The designer/specifier on the project must ensure that the respective details provided on https://nuwall.co.nz/technical-resources are suitable for the intended application on the project. Any additional detailing needs to be provided for specific design or any areas that fall outside the scope and specifications of the BRANZ appraised Nu-Wall system.

For applications which are outside the scope of the BRANZ appraised Nu-Wall system the Specifier must ensure that the design meets the relevant performance requirements of the NZBC.

Please contact the Nu-Wall® technical team for assistance in the development and review of non-standard detailing.

3. NZ Building Code Compliance

a) Alternative Solution

Nu-Wall® is categorised as an Alternative Solution for external cladding of constructions within the scope of NZBC Clause E2/AS1 – External Moisture (Third Edition, Amendment 6; February 2014).

The Nu-Wall® cladding system, if designed, used, and installed in accordance with the statements and conditions of this literature and supporting BRANZ Appraisals, 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

b) BRANZ Appraisals

The product has been determined by BRANZ as being suitable for installation as an exterior cladding, per the following Appraisals:

- Appraisal #550; Horizontal over a drained & vented cavity (risk scores 0 – 20)
- Appraisal #870; Vertical over a drained & vented cavity (risk scores 0 -20)
- Appraisal #556; Vertical Direct fixed (risk scores 0 – 20)

c) Spread of fire

Nu-Wall® Cladding consists of a solid extruded aluminium substrate coated with a surface finish less than 1.0mm thick. And is regarded as being non-combustible element as defined in NZBC Clause C/AS2.,

Section 12 and 13 of the Nu-Wall BRANZ appraisals confirms Nu-Walls non-combustibility status.

Where there is a requirement on a project for a non-combustible cladding system, this can be achieved through installation over a cavity formed using non-combustible AliBat (by Nu-Wall) Structural Aluminium Cavity Battens.

Further Information relating to AliBat can be downloaded from www.alibat.co.nz or https://nuwall.co.nz/technical-resources

4. Manufacture

Nu-Wall® is extruded in New Zealand by an ISO 9001 certified manufacturer using 6063 T5 or 6060 T5 aluminium alloy in accordance with NZS 3504:1979, Amend. 1:1998, clause 5.1.1, and will comply with NZBC Acceptable Solution B2 Durability for a durability of not less than 15 years, in accordance with the requirement stated in Table 1 for Non-structural Wall Cladding.
The extrusions are manufactured with an approximate 80% locally sourced recycled component. Nu-Wall® profiles are extruded to order and supplied pre-finished in a wide range of powder coat or anodised colours.
Cladding profiles range in weight from approx. 5.25 – 7.90 Kg/M2 and are supplied to a maximum length of 8.3m for prefinished (powder coated) boards.

** Please contact Nu-Wall® for any specific sizing required.

a) Lead-times

Supply to most projects requires a production lead-time of approximately 4 weeks, allowing time for extrusion of the main profiles and application of finishes. In some situations, involving smaller projects, sufficient mill-finish material may be held in stock, only requiring application of finishes; lead-time for these is reduced to approximately 2 weeks.

b) Supply chain

Nu-Wall® offers various options for obtaining supply of our cladding product either directly from ourselves or via your appointed building contractor. We also offer the product via an experienced third-party installer as part of a supply/install contract.

5. Finishes

Approximately 100 stock colours are available with further options, such as custom or corporate colour matches, being able to be made to order. Finishes carry warranties from the powder manufacturer relating to film- and colour-integrity.
Warranty periods of up to 25 years are available, depending upon the grade of powder selected.

a) Powder coat

Exterior grade finishes from reputable manufacturers are applied to the chemically prepared aluminium profiles, following which they are baked in an oven. Adhesion of the coating to the metal is superb and meets or exceeds relevant New Zealand and Australian standards.
Please refer to the Textures and Colour guide available for download on https://nuwall.co.nz

b) Anodised

This is an electrolytic oxidisation process which converts the aluminium surface to a coating. In addition to Natural Silver, anodising can also be applied in a range of bronze shades and Black.

Anodising is a durable and reliable process, but one which cannot always guarantee total uniformity of appearance. Some apparent difference can occur between finished boards. Anodising can be applied in a range of film thicknesses; please refer to AS1231 for guidance on appropriate film builds for your application.

c) Sublimation

Unique textures such as a timber finish can be recreated on the boards through a process called sublimation. Sublimation (or metal print) is a coating method of applying a woodgrain image onto our cladding. It's basically a double powder coat: first a base layer is baked in, then a transfer film with a high-definition image of real timber is applied and baked into the base layer. More information about the woodgrain options can be found on https://www.powdercoating.co.nz/metwood/

6. Installation - Structure and Framing

a) Installation General

Nu-Wall® cladding system is essentially a weatherboard product; the only fabrication required prior to installation being cutting to length and some longitudinal ripping of the extruded sections. Installation is well within the capabilities of a competent LBP builder.

The bulk of the Nu-Wall® profiles are suitable for Vertical and Horizontal application. For aesthetic reasons it is recommended that some profiles only be installed Horizontally.

b) Handling and storage

Short-term storage outdoors, raised off the ground, in cardboard cases is acceptable, though care should be taken to protect the material from the elements during this period. Longer-term storage should be indoors. The material should be always kept dry prior to installation.

c) 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.

In all cases studs must be at maximum 600 mm centres. Nogs/dwangs must be fitted flush between the studs at maximum 600 mm centres, except for Nu-Wall® cladding installed in a Horizontal orientation where the nogs/dwangs can be installed at maximum of 800 mm centres.

d) Steel framing

Must be to a specific design meeting the requirements of the NZBC. The minimum framing specification is 'C' section studs and nogs of overall section size of 90mm web and 45mm flange.

Steel thickness must be minimum 0.75 mm. In all cases studs must be at maximum 600 mm centres. Nogs/dwangs must be fitted flush between the studs at maximum 600 mm centres, except for Nu-Wall® cladding installed in a Horizontal orientation where the nogs/dwangs can be installed at maximum of 800 mm centres.

e) Drained and vented cavity

The drained and vented cavity must comply with NZBC Acceptable Solution E2/AS1, Paragraph 9.1.8.3. and incorporate a PVC or aluminium vent strip, punched with 3-5 mm holes or slots. The vent strip must provide a minimum ventilation opening area of 1000 mm2 per lineal metre of wall.

f) Direct fixed

If the cladding is to be fixed directly to the framing, ensure that you specify a wall underlay which is compliant with Table 23 of Clause E2/AS1 of the NZBC. Note that there is a minimum moisture absorbency requirement for underlays used behind direct-fixed, non-absorbent claddings.

There is no moisture absorbency requirement for underlays used behind Nu-Wall® cladding when it is installed over a drained and vented cavity. See paragraph below "NZBC Acceptable Solution E2/AS 1" for guidance relating to the type of installation.

g) Unlined gables

All buildings must have barriers to airflow in the form of interior linings with all joints stopped, or alternatively, unlined gables and walls must incorporate a rigid sheathing or an air barrier which meets the requirements of Table 23 of Clause E2/AS1 of the NZBC.

Where rigid sheathings (RAB) are used, the fixing length must be increased by a minimum of the thickness of the sheathing.

h) Inter-storey junctions

Where cladding is installed over a drained & vented cavity, the vertical height of the cavity should be limited to 7.00 metres as specified in Paragraph 9.1.9.4 of Clause E2/AS1 of the NZBC. This requirement is met by the incorporation of a proprietary Nu-Wall® inter-storey junction that is available with prefabricated internal and external corner flashings.

i) Aesthetic considerations

The extruded cladding profiles will follow any undulations in the substrate to which it is being fixed; hence it is essential that close attention is paid to the structural framing in terms of stiffness and being straight and plumb. Cladding profiles having a flat face are more likely to exhibit any undulations and consideration should be given to the viewing perspective and colour when selecting the profile. Profiles having a textured face are normally more "forgiving" in this regard.

7. Maintenance

Nu-Wall® cladding should be washed periodically to maintain its appearance; the frequency being dependent upon the subject environment. In most situations washing annually should suffice, though more frequent washing may be necessary in harsh environments (e.g. coastal marine, industrial, geothermal).
**Please refer to the Nu-Wall® Maintenance guideline document or call our technical team for advice.

8. Warranty

The Nu-Wall® aluminium substrate is warranted in normal use against rotting, rusting, cracking, or distorting for 100 years (or the lifetime of the building). See information relating to powder coat finishes for details of powder coat warranties.

9. Trademark

Nu-Wall® is the Registered Trademark of Aluminium Product Brands NZ Limited