Installation Instructions: Urbanline Newport Cladding

Points to consider for successful design before installation:

Moisture Content

Due to the hygroscopic nature of timber, it will adjust in moisture content according to ambient changes in temperature, humidity and weather exposure. As the moisture content changes, the timber expands and contracts.

The following points need to be considered:

- Local Climate
- Level of exposure to direct sunlight
- Allowance for expansion on large dimensions.

Long Term Weathering

A decision needs to be made at design stage whether to maintain the colour of the timber with an oil based timber preservative applied at regular intervals, or to allow the timber to weather naturally to a soft grey colour which requires minimal maintenance.

Aspects for Consideration:

- Committal of the client to long term maintenance
- Accessibility of the façade
- Desired aesthetic effort.
- If installed above other building materials, consider that natural tannin leaching can occur, due to rain, causing stains. This can be avoided by directing runoff water away from critical surfaces. Tannin is non-corrosive and is only of aesthetic concern.

Flashing and Waterproofing

All junctions and abutments with other surfaces need to be carefully considered. The proprietary flush fitting stops take care of most vertical joints. However, horizontal flashing needs to be "Zincalume" or similar, supplied by others. *Ask Urbanline to go over the elevations to assist in identifying problem areas. Detailed drawings of corner stops and end stops are included in this manual.*

Limitation of Butt Joints

In vertical Cladding, butt joints can be limited by the use of a Z flashing as an express joint. In horizontal cladding, sometimes vertical express joints can be introduced. This limits the need for large quantities of long lengths.

Ideal for:

- Exterior architectural features
- Commercial cladding applications
- Interior architectural features
- Municipal design
- Residential housing
- Rainforest retreats
- Hospitality building designs

Environmental Credentials:

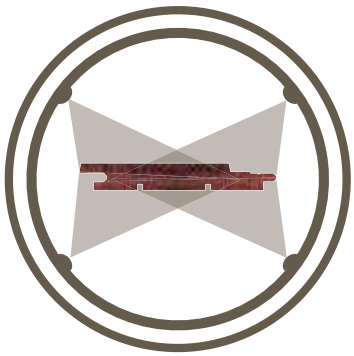
Urbanline Architectural is fully committed to supplying the building and design industry with responsibly harvested timber products from carefully managed resources.

Installation Instructions:

Installation Instructions: Horizontal Profile

1. Pre coat the cladding boards all round prior to installation and group similar lengths together for efficient optimization. Take advantage of our pre-oiling service, to save time, labour and space on site, providing an even coating on all 4 sides of the boards.

pre oiling system



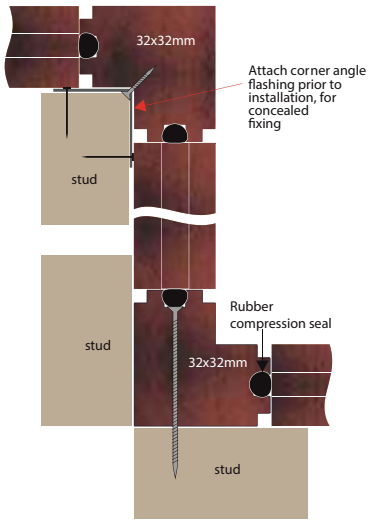
- Eliminates process of manually oiling each board all round prior to installation.
- Gives the penetrating oil a chance to soak in prior to handling the timber.
- The deeply penetrating oil working from front & back of the board improves dimensional stability.
- Requires a topcoat after installation.

2. Install breathable sarking over the stud frame keeping all overlaps pointing downwards and tape all joints.
3. Check stud work for straightness and plumb. Ensure correct provision had been made for external corner stop fixing. Studs to be max. 450 mm centres.
4. Install all corner stops and end stops.
5. Install starter board checking for level at all points.
6. Using a gauging stick, mark the cover increments of each row up the studs off the top of the starter board to keep everything straight and parallel. This is particularly important around windows and doors. Alternatively use a spacer block in the shadow line to assist even spacing.

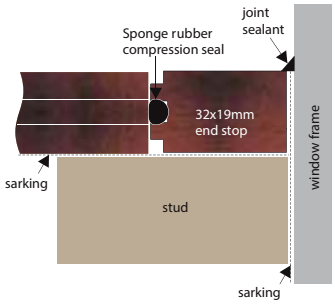
Phone 1300 658 638 Email sales@urbanline.com.au
For further product information and downloads Visit urbanline.com.au

closures

internal / external stops



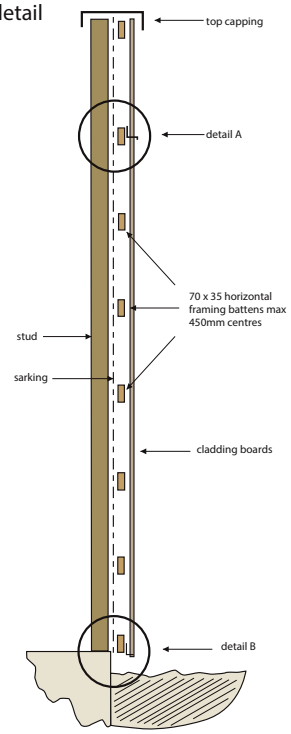
end stops



7. Install the cladding boards, following the increments marked on the studs. In some tropical climates the 2mm expansion allowance may need to be increased due to high moisture conditions. It may be necessary to lubricate the gaskets in the end stops with dishwashing liquid to help slip the boards in easily. Predrill a countersunk and clearance hole prior to drilling in the screws. If nailing, ensure nails are installed with the head flush to the surface of the timber. Do not drive in deeper as this may cause the timber to crack, losing the holding power of the nail.
8. Butt joints should be joined on the studs. All butt joints should be sealed with 'sikaflex' or similar joint sealant. The easiest way to apply the joint sealant is to apply it to the end of one board and allow it to squeeze out as the two boards are pushed together. The excess sealant will mushroom off the two edges. Let it dry fully, and then scrape it flush with a sharp chisel.
9. All end grain is to be sealed with multiple coats of the timber preservative to be used on the face.

Phone 1300 658 638 Email sales@urbanline.com.au
For further product information and downloads Visit urbanline.com.au

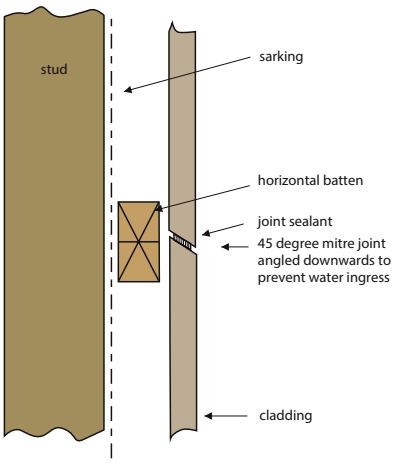
stud frame detail



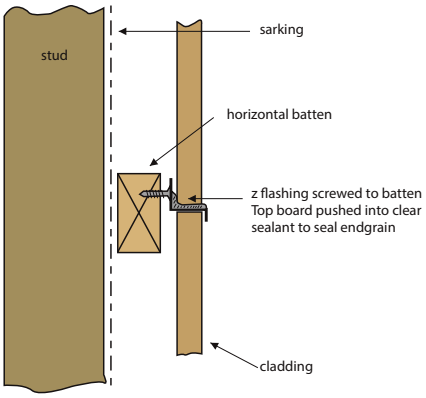
Installation Instructions: Vertical Profile

1. Pre coat the cladding boards all round prior to installation and group similar lengths together for efficient optimisation. Take advantage of our pre-oiling service, to save time, labour and space on site, providing an even coating on all 4 sides of the boards.
2. Install breathable sarking over the stud frame keeping all overlaps pointing downwards and tape all joints. Attach horizontal battens at 450 mm centres. These may be packed out to ensure straightness if necessary. Use 70x35 mm pine framing or similar material.
3. Install all external corner stops, Z flashings and bottom angles onto the horizontal battens.

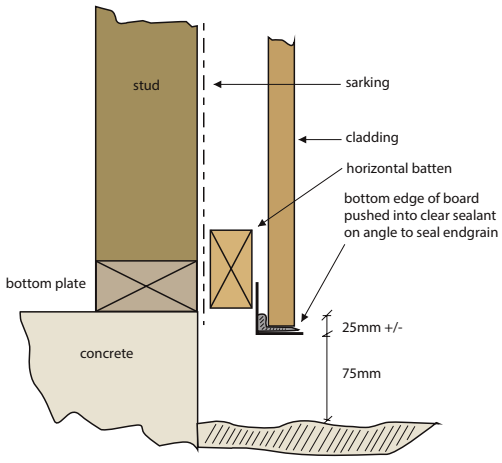
Vertical Cladding – Butt Joint



Express Joint – Z Flashing detail A



Bottom Edge – Protection Detail B



Phone 1300 658 638 Email sales@urbanline.com.au
For further product information and downloads Visit urbanline.com.au

4. Using a gauging stick, mark the cover increments of each row along the battens to keep everything straight and parallel. This is particularly important around openings. Alternatively use a spacer block in the shadow line to assist even spacing.
5. Install the cladding boards following the increments marked on the battens. In some tropical climates, the 2mm expanson allowance may need to be increased due to high moisture conditions.
6. Pre-drill a countersunk and clearance hole prior to drilling in the screws. If nailing, ensure nails are installed with the head flush to the surface of the timber. Do not drive in deeper as this may cause the timber to crack, losing the holding power of the nail.

Concealed fixing details for internal installations*:

Product Care:

Timber Moves

This is an unchangeable fact. If the potential for movement in any given application is considered, calculated and allowed for in the design and installation stages, the majority of problems can be avoided. If timber moves in installation it is always a reaction to change of circumstance and cannot be considered defective unless proven to be outside the specified moisture content range at time of delivery. By far the most movement occurs across the width of a backsawn board.

How does movement occur?

Timber expands and contracts in width in direct proportion with increase or decrease in moisture content. Timber is a hygroscopic material which means it releases or absorbs moisture to equalize with the air/medium it is in contact with. The amount of moisture in the air is a relationship between temperature and relative humidity. Therefore we can say that timber expands and contracts in width in response to ambient changes in temperature and humidity.

How to predict and allow for the range of movement

It is necessary to predict, as far as possible, the range of movement to be expected in a given application. This can then be allowed for by: leaving room for expansion between the boards, expansion joints if necessary, choosing suitable species or changing the width of a board. The following factors influence movement:

- Tangential shrinkage rate of the species (rate of shrinkage across the width of a backsawn board).
- Annual cycle of weather
- Level of exposure to sun/weather i.e. Direction, overhanging eaves, shadows etc.
- Size of the area to be clad.
- Waterproofing and water runoff
- Weather protection in construction.

The standard profile design allows 2 mm expansion and 7 mm contraction which is sufficient for normal conditions. The important thing is to identify the possibility of excessive conditions and make sure these are provided for. Urbanline offer the service, on request, of calculating the maximum moisture content and hence the expansion and contraction in an area based on the information provided by the Bureau of Meteorology and the tangential shrinkage factor. Don't hesitate to discuss with us any concerns you may have on your project.

> **Note:** Urbanline can only offer advice and cannot accept liability for onsite reactions.

Design specification

To assist in achieving your desired result, the following information should be drafted into your project specifications to ensure that inferior products are not used on your project. All denoted façade areas to be Newport Cladding, supplied according to the following specification and installed in accordance with the Building Codes of Australia, and the manufacturer's installation guidelines.

Surface finish

Furniture grade smoothness, ready for oiling – top surface only. Minimal chipping may occur with interlocking grain.

Moisture Content

Within a range of 10-14% M/C

Phone 1300 658 638 Email sales@urbanline.com.au
For further product information and downloads Visit urbanline.com.au

Straightness

Max warp/bow – 7 mm per metre.

Grade

Natural Select (min 2/3 Select, max 1/3 Standard according to AS 2796.2) Minimal surface checking allowed. Graded top face only.

Length

All timber is supplied in random length, ranging from 0.9m to 6.0m, unless otherwise specified. Average length = +/-2.7m. Max of 15% under 1.8m.

Colour Selection

Colour selection is not part of the grading process except with extreme variations according to the discretion of Urbanline. Colours can vary significantly from rich browns to greys. This is a natural characteristic of timber.

Species Selection

All timber selected according to species classification as covered in known trade names, i.e; Spotted Gum, Ironbark and Blackbutt. Other species are available upon request.

Durability Rating

Above ground Class 1 (AS 5604).

Specification Variance:

Up to 5% of volume. Pre-Oiling with Cutek Wood Preservative Option. This option provides the application of 1 clear coat of Cutek Wood Preservative to all 4 sides of each board. Further applications are required after installation to maintain the appearance of the timber – refer to timber finishes section.

Product supply specification

Urbanline, as the manufacturer of Newport Cladding, supply according to the following specifications:

Profile Accuracy

Machining tolerance measured at time of manufacture is +/- 0.2 mm in dimension and profile. Due to variance in timber moisture and characteristics, boards may swell or contract individually when exposed to the elements.

Order and delivery procedure

Quotation & Order Process

Newport Cladding is manufactured and distributed throughout Australia by Urbanline. We offer a free estimation and quotation service from your plans. This has the advantage of giving you an all-inclusive up-front costing for your job based on the information you provide us at the time of quoting. We look at any special requirements you may have and resolve these with you to ensure that you have all the materials you need to complete the job. You can go through the quotation with us to ensure we have interpreted your plans correctly. Simply sign off your quotation acceptance at the bottom of the quote and indicate your preferred delivery date. On receipt of your quotation acceptance we will contact you to put the necessary arrangements in place to ensure a timely delivery in a satisfactory manner.

Taking Delivery

- Smaller orders are normally hand off-loaded. It is necessary for you to provide sufficient labour to complete this task in a reasonable timeframe. Urbanline can arrange a crane truck delivery for larger orders on request. This is an efficient way of off-loading, but does cost extra.

The following steps should be taken when accepting delivery:

- Get the delivery document from the driver and check that you have the correct quantity of packs.
- Assess the overall condition of the pack on the truck – any damage should be notified on the signed delivery document which is given to the driver, and Urbanline should be informed immediately.
- Find the packing slip which is placed in a clear sleeve on the top of the pack.
- Cut the shrink wrap and steel strapping (if hand unloading).
- Check off all items against the packing slips, particularly any accessories ordered. Total linear metre can be estimated/ checked by multiplying the average length by number of pieces.
- Notify Urbanline if any inconsistencies.
- Any claim must be made within 7 days of delivery.

Phone 1300 658 638 Email sales@urbanline.com.au
For further product information and downloads Visit urbanline.com.au

On-Site Storage & Acclimatisation

- All timber should be stored undercover, on bearers at least 50 mm above ground and with plenty of airflow.
- Timber that is not neatly stacked is much more likely to twist or warp.
- At least two weeks acclimatisation period is necessary in areas of extreme weather conditions to avoid excessive expansion and contraction after installation.
- The cladding boards could be coated at this stage if the timber has not been supplied preoiled.
- External cladding is one of the harshest applications for timber surface finishes due to the destructive UV rays of the hot Australian Sun. As a result, ease of maintenance is a prime consideration. We recommend a good quality oil which is very easily applied using a lamb's wool applicator.

Surface finishes

Advantages of oils

- brings out the natural beauty and character of the timber.
- penetrates and feeds the timber, providing dimensional stability
- allows the timber to breathe.
- Tends to disappear and thin out when breaking down without blistering and peeling.
- Can be quickly reapplied by an unskilled person using a lamb's wool applicator.

We recommend and supply the Cutek Wood Preservative system. Ask for a Cutek brochure for further details.

Benefits of Cutek Wood Preservative

Cutek Wood Preservative is a specially formulated oil timber preservative for interior and exterior use, which is designed to penetrate deeply into hardwoods, providing resistance against surface decay, fungus and mould, in addition to providing water repellency, and assisting with dimensional stability. Cutek Wood Preservative does not peel off or crack, but helps to control warping, cupping and splitting, effectively enhancing the service life of the timber. This characteristic ensures that future recoat preparation consists of a simple wash-down of the timber with SARA Clean, rather than conventional sanding or stripping, resulting in significant savings in ongoing maintenance costs and time. Cutek Wood Preservative is suitable for use as a clear, water repellent preservative coating on exterior timber surfaces. However, the clear coated timber surface will silver with age to produce a natural weatherboard appearance, while retaining its dimensional stability and bio-toxicity characteristics. If this natural silvering of the timber is undesirable, then Cutek Wood Preservative is also available in specially formulated colour tones that will maintain and enhance the natural character and colour of freshly oiled timber.

Maintenance

Natural timber needs maintenance. Maintenance is required regardless of whether you want the rich pristine 'coated' timber look or the natural greyed off affect. The timber cells need to be hydrated and fed, to avoid them separating and shrivelling up which results in cracking and twisting. The frequency of oil application required depends on the following factors:

- Level of exposure to the sun
- Level of local rainfall
- The level of UV block provided by the coating
- The extent of exposure to the western sun

Urbanline Architectural recommends Cutek oils and the coating must be reapplied as frequently as necessary to retain the natural beauty and colour of the timber.

Division of Responsibility

1. Urbanline is responsible to:
   a. Provide specifiers and installers with product information
   b. Manufacture and supply according to the product specification
   c. Develop products which provide long-term durability and satisfaction
2. Specifiers are responsible to:
   a. Determine the suitability of the product for each specific application taking into account localised demand and exposure factors
   b. Educate the client as to the product characteristics and required maintenance
3. Installers are responsible to:
   a. Comply with the building code of Australia
   b. Install the product to the manufacturers and specifiers specifications
4. Owners are responsible to:
   a. Understand that timber is a natural product with its own natural characteristics e.g. Colour variation, expansion and contraction etc.
   b. Maintain their masterpiece

Phone 1300 658 638 Email sales@urbanline.com.au
For further product information and downloads Visit urbanline.com.au