



NORclad[®]
Part of National Timber Group



General Guidance

MINIMUM INSTALLATION – TIMBER CLADDING

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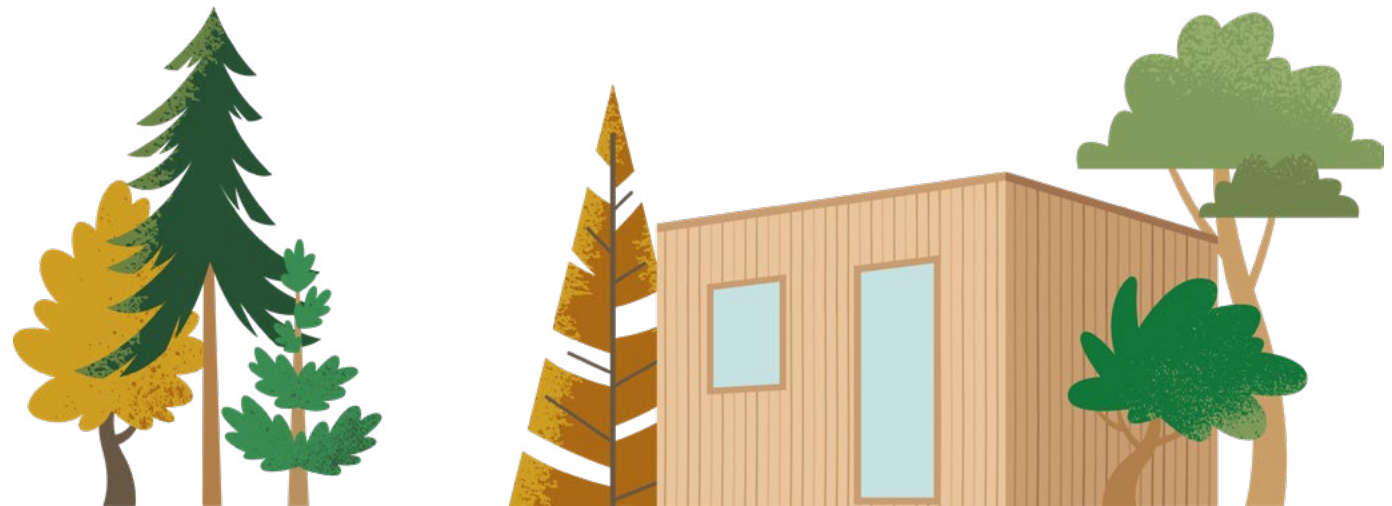
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MINIMUM INSTALLATION REQUIREMENTS

In all cases, the material used to produce NORclad® Cladding and Trims is a natural material and as such will respond to the environment.

The various species of timber used to produce the NORclad® range will swell or shrink as they gain or lose moisture. This happens as the timber seeks to achieve equilibrium with the moisture content of the surrounding air. It is vital for the future performance of all NORclad® products that the moisture content is at equilibrium before it is installed. It is only by ensuring this, movement later on will be minimised.

ACCLIMATISATION AND SITE STORAGE

The NORclad® range of pressure treated and untreated products are not completely dried prior to delivery and therefore require time to acclimatise when they reach site.

NORclad® products must be stacked every layer with vertically aligned sticks and stored in a well ventilated dry location before installation to allow the timber to reach equilibrium with the surrounding air.

It is vital to check overall measurements of the product prior to installation as tolerance on dimension allows for 5-8 mm deviation after treatment until the product acclimatises to equilibrium moisture content. The most important measure is the backface of the boards, and to ensure this has returned to its 'pre treated' measure.

For example NWC2 profile has a backface cover of 125mm.

When on site and prior to installation, the NORclad® range of products need protecting from direct sunlight, water saturation, snow, ice, dirt and other elements. Store all products flat and off the ground on bearers and a vapour barrier so that moisture is not absorbed through the bottom boards of the stack. Protect with a waterproof covering elevated in the centre so that water does not collect on the cover. It is important that the bundle is not completely sealed so that a good air circulation is achieved. Ideally the NORclad® products should be stored in an enclosed building, with good airflow prior to use.

ACCLIMATISATION AND SITE STORAGE CONTINUED

ONCE DELIVERED

Please ensure that all packaging is removed, Cladding should then be stored under cover and off the ground and kept dry at all times, this will aid airflow to all of the boards and help with product acclimatisation. Coated Cladding must be separated, use interleaving within the packaging to ensure boards are separated, ensure boards have adequate ventilation and importantly kept dry at all times prior to installation.

FINISHING NORCLAD® CLADDING PRODUCTS PRIOR TO INSTALLATION

If NORclad® Cladding products are to be coated on site; it is recommended that the finish is applied to all surfaces including ends prior to installation. Coatings on NORclad® products are required to protect the timber from water penetration, UV degradation and helps to prevent staining caused by mildew and extractives. Factory coating these products will improve coating quality and increase the service life of the coating, NORclad® are able to offer advice on the suitable range of coatings available.

ON SITE CUTTING

All on site cuts made to the NORclad® range of products, treated, untreated, or coated; must be immediately finished with an appropriate end seal. End grain absorbs moisture much more rapidly and applying the correct end seal will help prevent splitting and end checking at ends of boards and prevent premature coating failure on coated Claddings.



FIXING INFORMATION

It is recommended that all works are carried out by a professional installer.

Timber is a natural product; a characteristic of this is for boards to have variation in colour, knot sizes and frequency. With timber constantly taking on, and losing moisture there may be some swelling and shrinkage of boards – in particular when the timber is first delivered to site and finding its equilibrium moisture content with the surrounding air, with particular reference to treated/impregnated European Redwood in A+ quality. This is very important.

As NORclad® supply a number of species, treated and coated products please make contact for specific questions you may have, or advice you may need.

THE FOLLOWING IS GENERAL ADVICE, AND NOT INTENDED AS A COMPREHENSIVE GUIDE:

Ensure the chosen Cladding profile is suitable for the intended horizontal or vertical application. On horizontal applications the tongue should be placed at the top, with the groove at the bottom – this will ensure water flows away from the boards. Vertical Cladding must be installed on a cross batten system to ensure adequate air flow. Cladding should be installed onto regularised impregnated battens e.g. 38 x 50 / 47 x 50mm. This should be specified and accounted for in the design by your Architect.

- Horizontal Cladding – battens are installed vertically and centres are typically 600mm (maximum).
- Vertical Cladding – a cross batten system is required, vertical battens to be installed at 600mm centres (maximum), horizontal cross batten to be installed at 400mm centres (maximum).

- It is critical each board is independently fixed
- We do not recommend you secret fix boards over 100mm
- Airflow, ensure the backing structure is ventilated, the top and bottom of the Cladding should not be restricted
- Ensure detailing and flashings direct water away from the building
- Install a minimum of 200mm above impermeable ground
- Do not allow vegetation to contact the cladding
- Always apply End Seal after any on site cutting

Refer to [British Standard BS 8605, External Timber Cladding Part 1: Method of specifying](#) for guidance.

ALL NORCLAD® PRODUCTS MUST BE FIXED USING STAINLESS STEEL GRADE 304 FIXINGS

We recommended annular ring shank nails with a flat head. The fixing should sit flush to the board surface, hand nailing is recommended for all installation to ensure there are no overdriven nails, where nails are over driven the hole should be filled with an exterior grade wood putty.

If a nail gun is to be used then care should be taken to ensure nails are not overdriven as this can cause splitting and visible damage to the facade which is likely to be unacceptable.

Material: Stainless Steel Grade 304 Nails

Nails Length: Nails to penetrate the battens by 2x thickness of the cladding board

Head: Flat head **Type:** ARS **Gauge:** 2.9mm

Positioning: Nails should be at least 20mm from the end of the boards and 15mm from the edges. *To reduce risk of splitting pre-drill nail or screw holes at the board ends.*

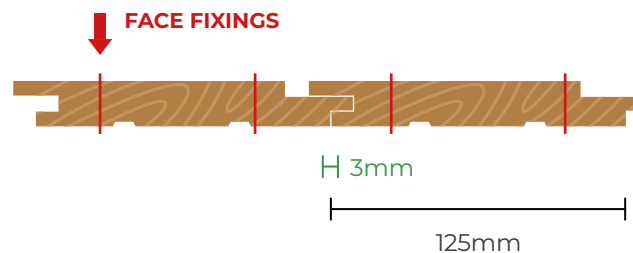
It is suggested that these holes towards the ends of boards are pre-drilled.

FIXING NORCLAD® TIMBER CLADDING

General Advice, to be checked with your installation professional.

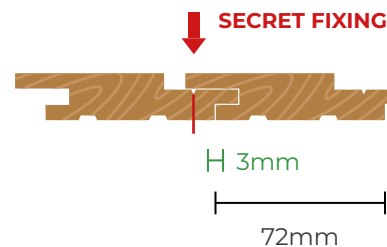
FACE FIX (OVER 100MM):

We suggest the nails are fixed through the thickest part of the cladding, with each board fixed independently, ensuring 3mm spacing is left between T&G boards to allow boards to move as they take on, and lose moisture. When fixing end to end, allow a 2–3mm gap to allow for expansion.



SECRET FIX (UNDER 100MM):

Secret fix profiles should be under 100mm wide, a single fixing can be installed through the bevel line, ensuring 3mm spacing is left between T&G boards to allow boards to move as they take on and lose moisture. When installing the first board on each elevation, this will require face fixing. When fixing end to end, allow for a 2–3mm gap to allow for expansion. General Advice, to be checked with your installation professional.



Please lift wrappers on site once timber has been delivered, this will aid airflow to all of the boards and help with product acclimatisation.



Expansion – We would suggest it is important to leave an 8mm gap around the perimeter of an elevation and where Timber Cladding meets other building materials. Sufficient expansion must be allowed for in between boards as boards will expand and contract through the seasons. Consideration should be given to allow for movement within the materials.

BEST PRACTICE INSTALLATION FACTS



Ensure Timber is fully acclimatised before final installation of the product. All dimensions of the timber, most importantly the back face cover should have returned to their original dimensions.



Re-working at the installation site should be limited to cross cutting, drilling or notching. All exposed surfaces should then be given two liberal brush coats of a suitable preservative as recommended by the manufacturer of the industrial wood preservative used in the original treatment.



BRUNNEA WARRANTY INFORMATION

- **Pressure-treated wood must never be rip sawn along its length.**
If this takes place, it must be returned to the treatment plant and retreated prior to use.
- **30 Year Warranty applies subject to correct installation, desired service life 30 to 50 years.**

Pressure treated timber from NORclad® Ltd, when used in the appropriate Use Class (UC) situations, has a 30 year guarantee against failure of the timber from fungal decay or insect attack.

It does not cover the costs of removal or reinstatement of such components or consequential costs or loss due to failure of the component. Claims must be brought within two weeks of the expiry of the 30 year period, at the latest and must be accompanied with proof of purchase and a sample of the failed material.

- The terms rot and fungal decay as used in this guarantee mean attack by wood destroying fungi that disintegrate the wood cell walls but do not include staining fungi associated with the weathering of wood. Weathering of wood is not fungal decay or rot of any type or definition.
- The term insect attack refers to attack by wood destroying insect that destroy the timber structure.
- The term failed refers to damage caused by insects and/or fungi to such an extent that the component is no longer fit for purpose.
- Timber is hygroscopic and will move in relation to moisture content, movement will take place throughout the lifespan of the Cladding and this movement should be allowed for when fixing.
- Ensure the design and installation will accommodate the natural seasonal movement of the timber by paying attention to correct movement gaps and/or overlaps for the profile and species used.



View this Timber Cladding Handbook from Timber Trade Federation for more information.



CONDITIONS

- 01. Only NORclad® Ltd treated to UC3 must be used.
- 02. All NORclad Ltd pressure treated timber in the NORclad® Range of products must be installed in accordance with the 'Minimum Installation Requirement' Document with special attention if the timber is cross cut, notched or bored during installation, then exposed surfaces must be coated with a suitable end coat preservative according to the correct application directions.

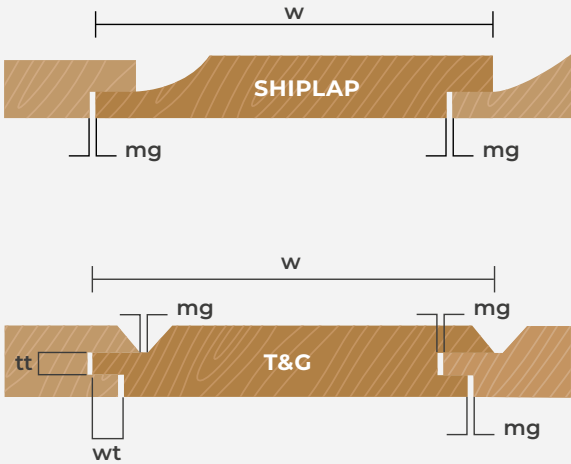
EXCLUSIONS

This Warranty does not apply to:

- 01. Any NORclad® Ltd component supplied for use outside of European markets.
- 02. Any NORclad® Ltd component removed from their original installation and re-used at a new location.
- 03. Any damage caused to products used in commercial or industrial structures.
- 04. Damage caused by weathering of wood, including but not limited to raised grain, splitting, cracking, twisting, warping, shrinkage, swelling or any other physical property of the wood, or where untreated material is exposed by the effects of this weathering.
- 05. Timber degrade which is the result of the natural movement of wood in service, including weathering, twisting and splitting of components.
- 06. A piece of treated timber that is cut, drilled or notched after preservation unless the exposed area has been treated with an effective end coat.
- 07. Areas of wood where preservative surface penetration is consistently limited to less than 3mm or is effectively unachievable due to natural variations in the wood substrate and/or abnormal growth characteristics.

Table 3: Minimum movement gaps for T&G and shiplap profiles and minimum tongue dimensions for T&G profiles (ref: BS 8605)

Board Width (w)	SHIPLAP PROFILES		TONGUE AND GROOVE PROFILES			
	Minimum Movement Gap (mg)		Minimum Tongue Width (wt)		Minimum Tongue Thickness (tt)	
	SMALL movement species	MEDIUM movement species	SMALL movement species	MEDIUM movement species	SMALL movement species	MEDIUM movement species
50mm	2mm	2mm	8mm	8mm	5mm	5mm
75mm	2mm	2mm	8mm	9mm	5mm	5mm
100mm	2mm	3mm	8mm	12mm	5mm	6mm
125mm	2mm	4mm	10mm	15mm	5mm	7.5mm
150mm	3mm	–	12mm	–	6mm	–
175mm	3mm	–	14mm	–	7mm	–
200mm	4mm	–	16mm	–	8mm	–



This guarantee does not affect the statutory rights of the customer.

CONTACT US TODAY

At NORclad®, we pride ourselves on proactive communication with both existing and prospective clients.

For more information and to discuss your options, please feel free to contact our sales team today via email or phone.

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AND RIBA PRODUCT SELECTOR**

