

North America



Installation Guide for Lunawood Facade



Installation Guideline

Foreword

This guide is based on premium properties of Lunawood thermally modified wood and ThermoWood® construction best practices and research. The guide is suitable for use as an indicative guide for facade products within the Lunawood Collection. For product specific installation guides please visit www.lunawood.com.

Local building codes regulations and instructions must be followed. Local environmental conditions, especially humidity should be factored into the design considerations. Always contact your own local Lunawood supplier for comprehensive and up-to-date information.

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01 Lunawood ThermoWood® and TMT Hardwood Description

Lunawood ThermoWood® and TMT Hardwood are premium thermally modified timbers, manufactured using only natural methods—heat and steam—with no chemicals added. This environmentally friendly process enhances the wood's durability, dimensional stability, and resistance to decay, making it ideal for demanding applications such as exterior cladding, decking, and interior paneling.

Lunawood ThermoWood® and TMT Hardwood meet ASTM E-84 class B or Class C fire resistance (depending on the product), offering improved fire performance when required for specific building regulations or project requirements. When needed, additional fire-retardant treatments should be applied by certified partners to ensure compliance and longevity.

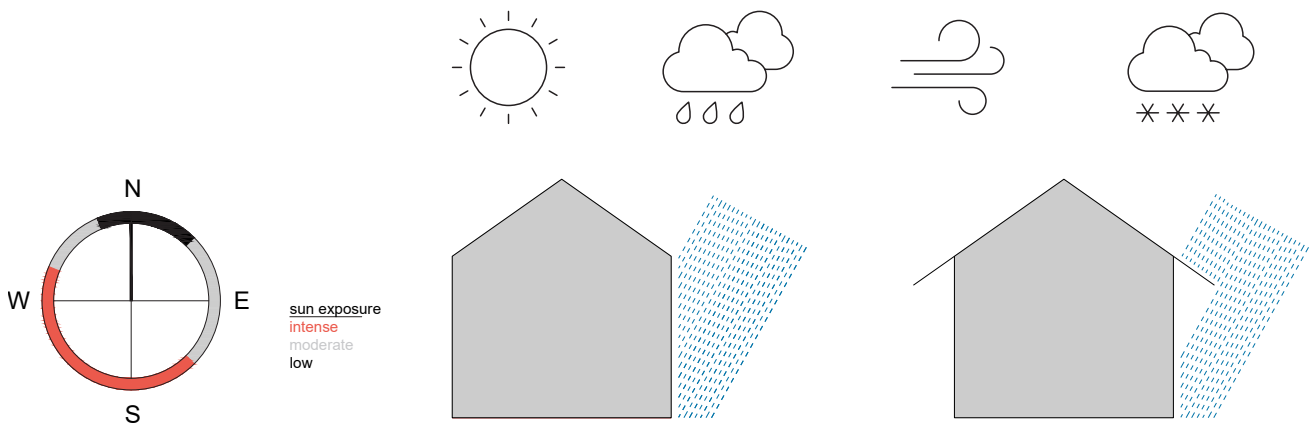
To ensure long-term performance and aesthetics, sealing cut board ends is strongly recommended. This prevents moisture ingress and will help maintain dimensional stability and visual consistency.

Only stainless steel fasteners should be used with Lunawood products. Grade 304 (or 306 in coastal and humid environments) stainless steel will prevent corrosion and discoloration, and ensure a secure, long-lasting installation.

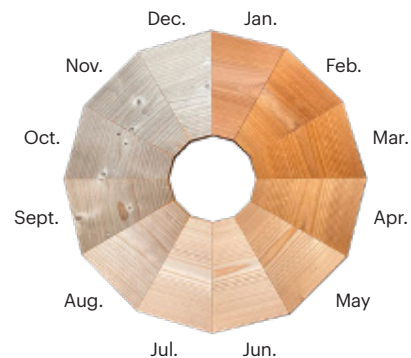
02 Design considerations

The greying process of Lunawood ThermoWood® and TMT Hardwood is a natural reaction primarily caused by exposure to sunlight and outdoor weather conditions. Ultraviolet (UV) radiation from the sun breaks down the wood's surface lignin, gradually transforming the original warm brown tone into a uniform silver-grey patina. This change is purely visual and does not compromise the wood's performance attributes, such as durability and dimensional stability.

The rate and appearance of greying can vary depending on several environmental factors. Surfaces with greater exposure to direct sunlight—such as those facing south or west—will grey more quickly than shaded or sheltered areas. Certain topographical cladding profiles may interact with this visual process in different ways. Likewise, weather conditions like rain, wind, and temperature fluctuations accelerate the surface aging process by washing away the degraded wood fibers and different cladding profiles will visually interact with these fluctuations in different ways as well. As always, please reach out to your Lunawood representative if product questions arise.



Surface treatment also plays a key role. Untreated Lunawood will begin to grey relatively quickly, often within months. Applying a UV-protective coating can slow this transformation, helping to preserve the original color if desired. However, these treatments must be maintained in accordance with manufacturer guidance.



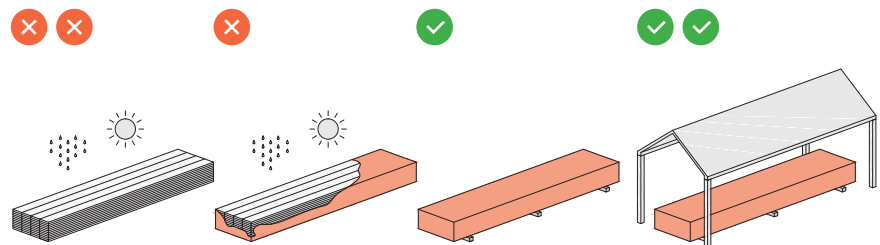
Example of natural weathering in Finland in one year.

Finally, elements such as airborne pollutants, dirt, and poor drainage can lead to uneven greying. Areas where moisture lingers – e.g. near the ground or in corners with limited airflow – may experience accelerated discoloration or patchy results. Despite these factors, the natural silver-grey tone that develops over time is often considered aesthetically pleasant and in harmony with outdoor environments.

03 How to store timber on the construction site

To preserve the quality of Lunawood ThermoWood® and TMT Hardwood products, some storage precautions should be taken when material arrives at the construction site:

- Store wood in a ventilated space, protected from sunlight and precipitation. Wood exposed to sunlight may experience a change of color.
- Cover the stored material tightly with UV-protective wraps before and during installation. It is recommended to store Lunawood in its original packaging.
- Lunawood timber packages must be kept ventilated and off the ground. Use dunnage to create an even base that allow airflow below the package.
- Lunawood timber must be placed in a horizontal and dry surface, with a sufficient number of supports to avoid excessive dipping/bending.



04 Handle with care

Always wear appropriate PPE:

- Protective eyewear
- Dust protection with active carbon filter
- Hearing protection when applicable
- Protective gloves when handling material
- Safety footwear
- Head protection when applicable
- Fall protection when applicable



Ensure materials are stored securely on a stable base to prevent deterioration.

Handle and install the product with care to avoid damage from contact with other objects and surfaces.

Tongue and groove profiles must be handled with care to avoid damage during the material unloading and transport. The edges of these type of profiles are delicate points that could be damaged if handled roughly.

05 Working with Thermally Modified Lunawood

PPE

As with any wood, safe working of thermally modified timbers requires the use of the following personal protective equipment:

- Protective eye wear
- Dust mask with active carbon filter
- Protective gloves for handling
- Safety footwear
- Hardhat (where applicable)
- Fall protection (where applicable)

Planing

When working with thermally modified wood, set cutter depths as if working with hardwood species. Feed rates should be lower than used for working unmodified wood. Pay attention to feed roll settings and pressure configuration to prevent the risk of cracking the profiles surface.

Sanding

No additional sanding is required because the surface quality of Lunawood is excellent after planing.

Sawing

The sawing of thermally modified wood does not differ from working with untreated wood.

Pre-drilling

Pre-drilling fasteners will be necessary to reduce the risk of longitudinal cracks during installation. Pilot diameter must be $0.5\varnothing - 0.8\varnothing$ ($\varnothing$ = screw diameter).

Screwing

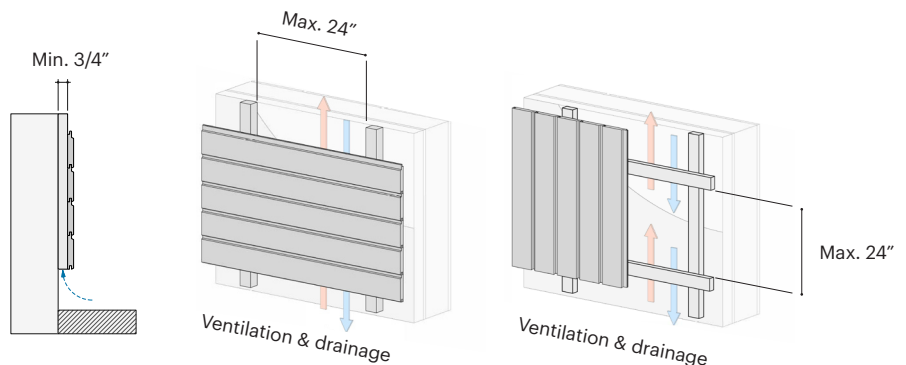
With visible screws fixing system, fasten screws to the correct depth. The screw head must be flush with the decking profile surface in order to prevent splits, surface staining and moisture traps.

06 Ventilation and drainage

Once the type of profile has been selected, it is time to decide the support structure design for the facade. In addition to serving as a support, the substructure separates the wood cladding from the support wall, creating a dry and ventilated cavity in order to:

- Facilitate the drainage of the cladding profiles
- Balance the moisture content between inner and outer faces of the cladding
- Guarantee long-term durability of the support wall

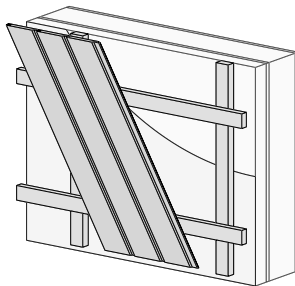
The ventilation cavity should maintain a consistent minimum thickness of 3/4". It will serve two main purposes: drainage and ventilation. In high humidity climates, we recommend a larger ventilation gap. The cladding support structure (support furring such as durable wood or metal) must always be fixed to the backing wall structure.



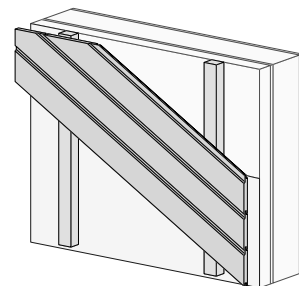
Installing Lunawood cladding in diagonal orientation:

If the cladding profiles form an inclination angle greater than 45° with the horizontal, the installation guidelines are the same as those used in the vertical orientation.

If the inclination angle of the profiles is less than 45° with the horizontal, the installation guidelines are the same as those used in horizontal orientation.



Inclination angle of the facade > 45°



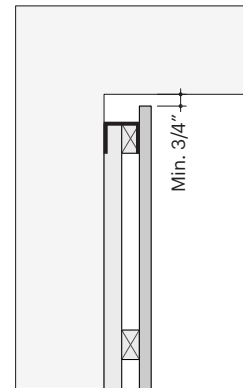
Inclination angle of the facade < 45°

NOTE: Code guidance in specific environmental zones such as Wildland Urban Interface (WUI) and High Velocity Hurricane Zones (HVHZ) may require specific wall assembly methods. Please check with your local code official and your Lunawood representative to ensure alignment.

07 Ground clearance and air cavity gap

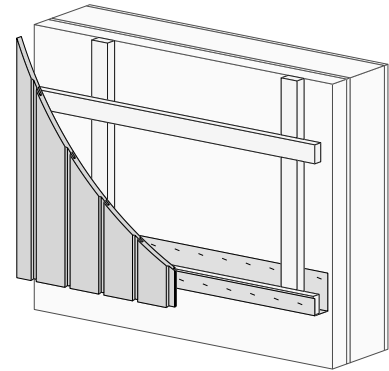
Top edge facade detail

It is recommended to leave a free opening of at least 3/4" between cladding profiles and eave, roof or any flashing or finishing element to allow cavity ventilation.



Insect mesh

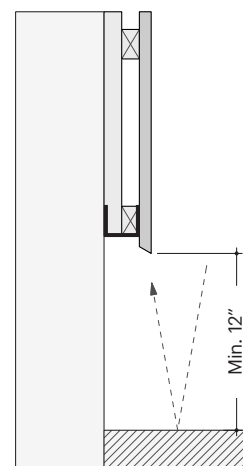
To prevent insects and small rodents from entering the cavity, it is recommended to fit the insect mesh on closed-joint claddings (facades with tongue & groove profiles or facades without gaps between battens).



Bottom edge facade detail

Leaving at least 12" between the bottom edge of the cladding profiles and the ground is recommended.

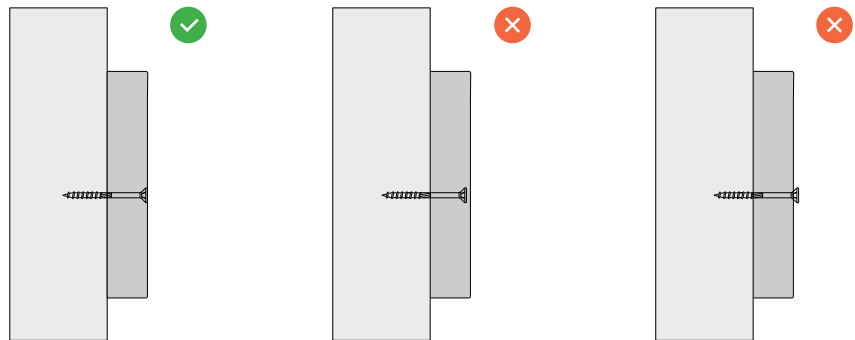
Cutting the ends of vertical cladding profiles to a 30° angle will allow moisture to drip from the ends of the boards more easily and reduce the risk of moisture retention through surface tension.



08.1. Fastening

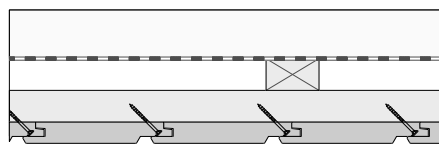
To fasten Lunawood cladding profiles, screws must be at least of AISI 304 quality (A2 class) stainless steel.

- Pre-drilling and countersinking fastener locations will be key to avoiding cracks during installation. Pilot diameter must be $0.5\varnothing - 0.8\varnothing$ ($\varnothing$ = screw diameter).
- For best results use Luna Solida1 from Lunawood Collection or similar.
- Screw length should provide penetration into structure $\geq$ the cladding material thickness without protruding through the structural member.
- Fasten screws to the correct depth. Heads must be flush with the cladding profile surface in order to prevent splits, surface staining and moisture traps.



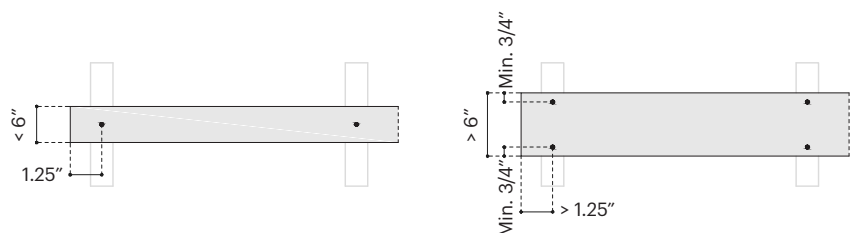
Profiles with hidden fixing groove:

- Use one fastener at each cladding/furring intersection pre-drilled and countersunk on the hidden fixing groove
- Fasteners should angle towards the center of the board being installed to properly seat the groove edge



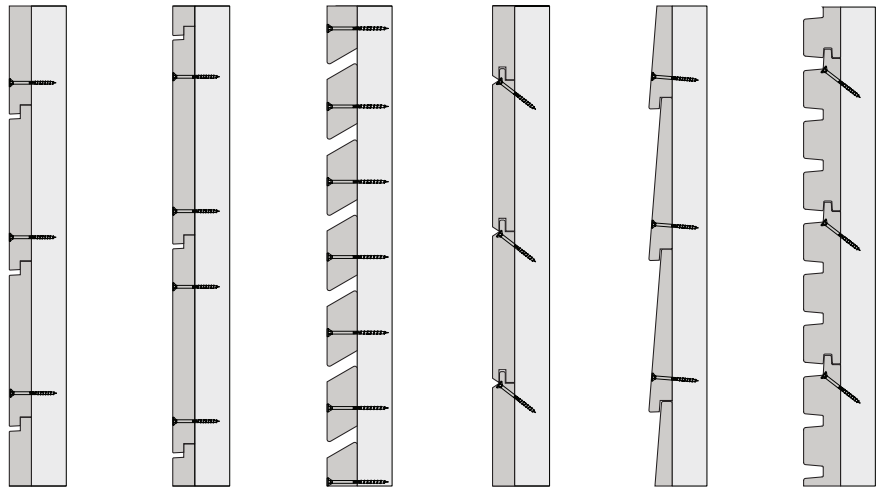
Profiles without hidden fixing groove:

- Use one fastener at each cladding/furring intersection when the cladding profile is $<6"$ wide. Use two fasteners when the cladding profile is $>6"$ wide.
- Fasteners should retain a gap of $>1.25"$ from the board ends and $>3/4"$ from the board edges.

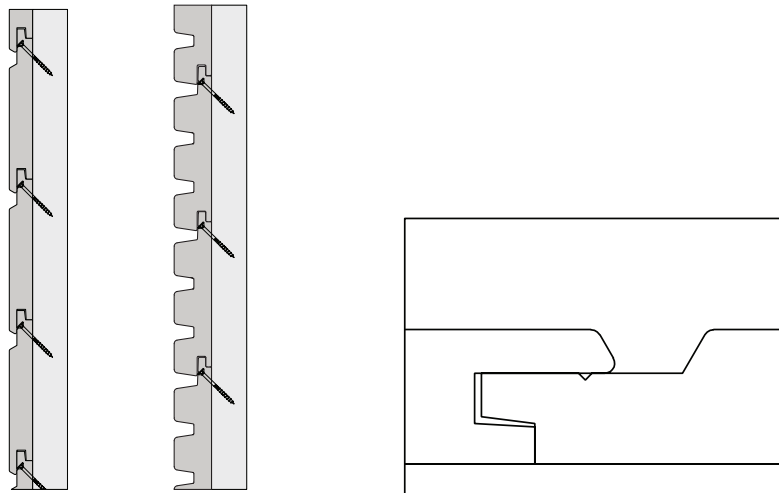


08.2. Correct fastening

Lunawood profiles can be fastened as follows.



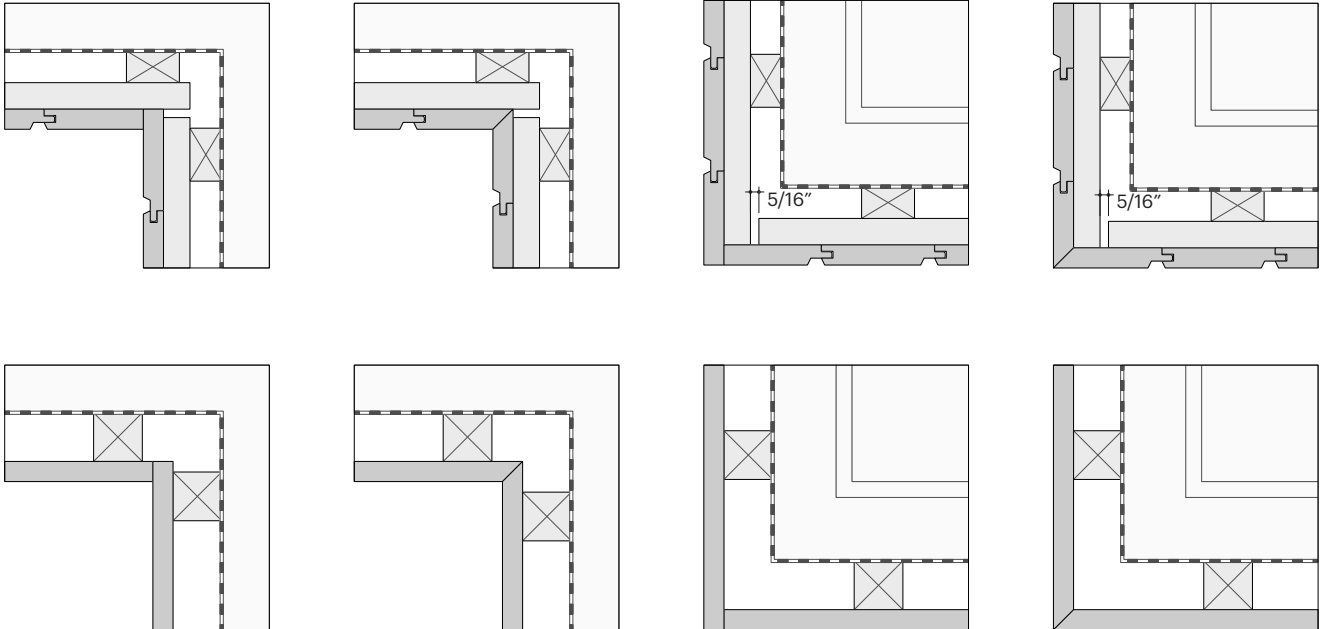
Profiles with HN



09 Design tips

Corner detailing

Due to their enhanced mechanical properties, Lunawood products do not require additional termination accessories at starts, ends and corners, allowing for elegant, modern design moments.

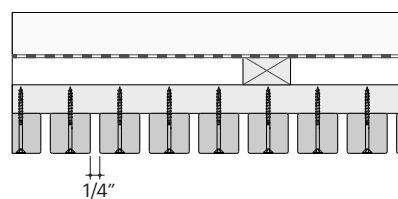


Batten assemblies

When developing a batten or slat façade, fastener length and position considerations will vary from traditional cladding profiles. Battens should maintain a 1/4" gap to promote drainage and drying. Vertical battens should be installed on horizontal furring with a top bevel allowing for drainage.

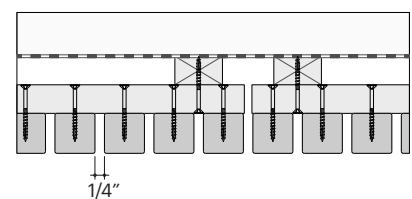
Face fastening

Choose a furring material that allows for a minimum thickness relationship of approximately $.66B$ (batten thickness) = F (furring thickness)



Panelizing

Plan thickness and gap relationships to ensure visual alignment and keep fastener ends at least 1/4" from the batten face.



Legal disclaimer

Lunawood Collection – Facade Installation

Product characteristics

The facade products within the Lunawood Collection are carefully manufactured and inspected to ensure quality. However, these are natural wood products and are subject to variations in weight, density, color, grain. Wood facade is naturally subject to dimensional changes as the moisture content in the wood fluctuates with humidity in the air. Swelling, shrinkage, surface checking, and other movement of individual pieces are normal occurrences in wood facades. Nevertheless, with Lunawood exterior claddings the swelling and shrinkage are minimal compared to kiln dried Scandinavian Pine or Spruce.

Before installation

Facade products within the Lunawood Collection should be stored and treated according to Lunawood guidance, see Lunawood technical guideline www.lunawood.com

An adequate air circulation behind the facade must be ensured in order to have long lasting Lunawood facade.

Use safeguards for personal protection (safety glasses, dust mask and gloves) always when with Lunawood ThermoWood®. We recommend an active carbon filter dust mask when drilling, sawing, sanding, or machining ThermoWood®.

Installation

Lunawood installation guidance must be followed.

Local building codes must be consulted when building a facade with facade products within the Lunawood Collection. Facade must be built in accordance with regulatory requirements. Most countries may require building permits.

Drawings and schematics used to show where to place screws are for reference purposes only.

Maintenance

Like all timber products Lunawood ThermoWood® and TMT Hardwood. will go grey upon exposure to UV if left untreated, and in time may show some fine cracks or splits on the surface. In order to preserve and maintain the original appearance apply a surface coating that is suitable for Lunawood ThermoWood® and Lunawood TMT Hardwood. Consult your local surface treatment manufacturer and see Lunawood General Maintenance Guide for facades on www.lunawood.com

Other information

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Every facade is different, and this guide should not be considered to set out how a facade should be constructed in every circumstance. We accept no liability for any loss or injury caused by any reliance placed on this guide.

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