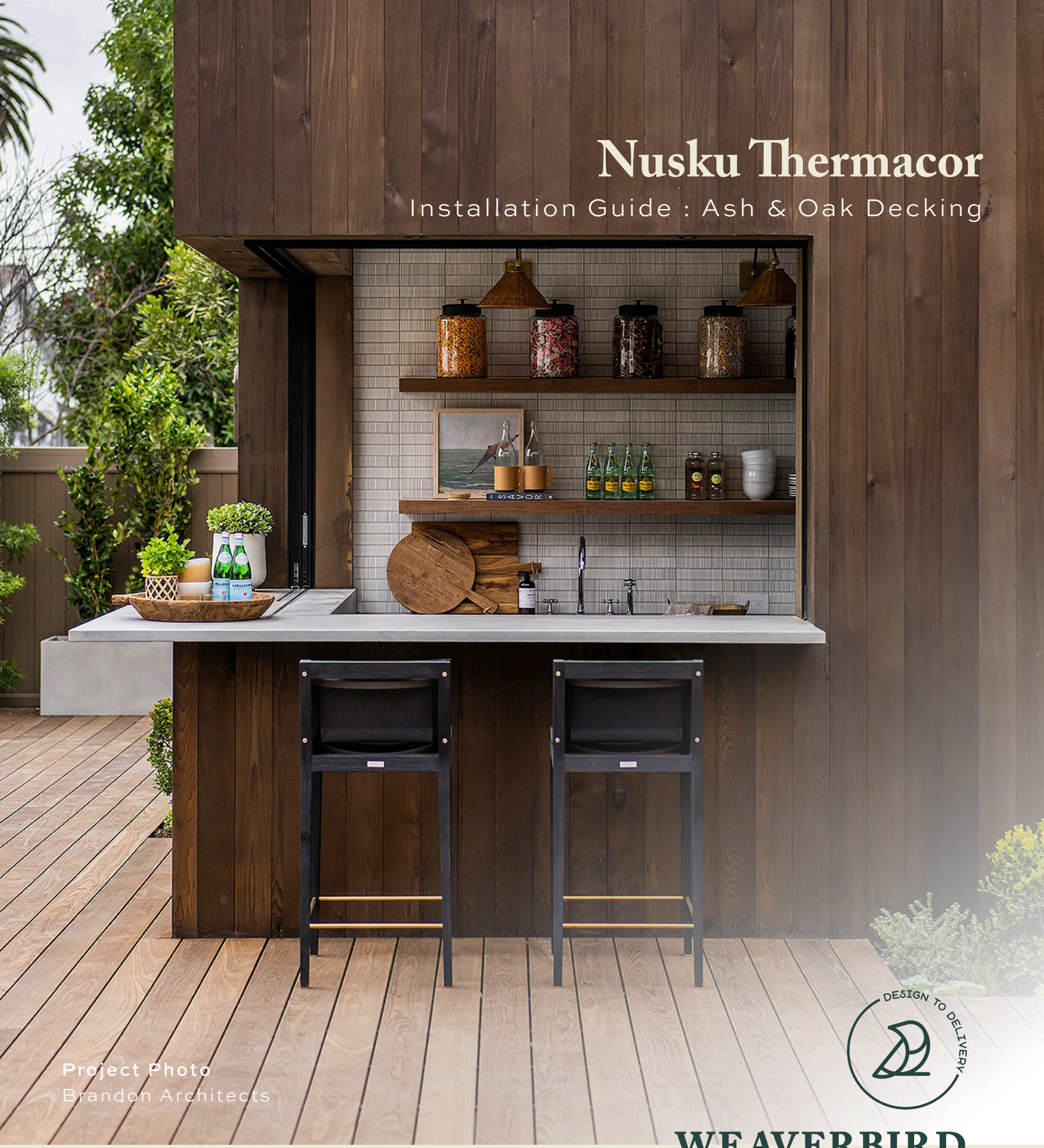
Nusku Thermacor

Installation Guide : Ash & Oak Decking



Project Photo
Brandon Architects

DESIGN TO DELIVERY

WEAVERBIRD

weaverbirdco.com
hello@weaverbirdco.com
showroom : 2732 east coast highway
corona del mar, ca 92625

Nusku Thermacor

Nusku Thermacor has a range of species including American Ash, American Oak & North American Hemlock. Everything in this collection has been treated with heat & steam to modified the wood at a cellular level increasing durability, performance & aesthetic.

Hardwood Specs

Species: Ash, Red Oak
Grain: Mixed Grain
Grade: Proprietary Clear
Thickness: 1x, 5/4x, 2x
Widths: x4, x6
Lengths: Random Length Odds/Evens (6-12' with 3-5% 3-5' included)

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Disclaimer

Consult your local building code to ensure your project is installed in accordance with local requirements & consult your local building office to understand permitting requirements. Drilling, sawing, sanding or machining wood products generates wood dust. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.

Jobsite Acclimation

Thermacor is a natural wood product which means our material should be fully acclimated to your local/jobsite environment. The acclimation period varies in length based on the relative humidity in your area & time of year. The goal of local acclimation is for the wood to achieve its Equilibrium Moisture Content (EMC) which minimizes moisture absorption after installation.

To properly acclimate, Thermacor should be removed from packaging & stored elevated off the ground. Optimal jobsite storage would be inside the structure (garage, open living space) but minimum would be out of the weather & direct sunlight. Acclimation can be further expedited by placing sticks between each row of boards.

The Fiber

Our Thermacor hardwood offering consists of American Ash & Red Oak. These are products of nature that will include unique characteristics & qualities that we as a manufacturer can not control. This includes color, grain patterns, surface character (checking).

Color: Thermal modification changes the wood at a cellular level with the combination of heat & steam which creates a rich walnut tone throughout the material. Each Thermacor board experiences this modification based in it's unique weight, density, color & grain which results in slight color variation between boards.

Grain Pattern: As a product of nature, Thermacor Ash & Oak grain varies from board to board. Thermacor is not sorted for grain which means there is a mix of grain structure with the largest percentage being flat grain fiber.

Surface characteristics (checking): Thermal modification adds incredible value but the platform (Ash & Oak) remains a natural wood product. With that, small surface checking and/or hairline cracks can be present in the wood, especially after installation. CUTEK® Extreme is the recommended finish for Thermacor, as it protects the fiber from the inside out. Regular application of CUTEK® Extreme can help reduce the occurrence of checking. Please follow the application guidelines provided by the oil manufacturer.

Storage & Handling

Proper storage & handling of the Thermacor decking will best allow the product to acclimate to it's new environment. Reference as follows for key principles of onsite storage.

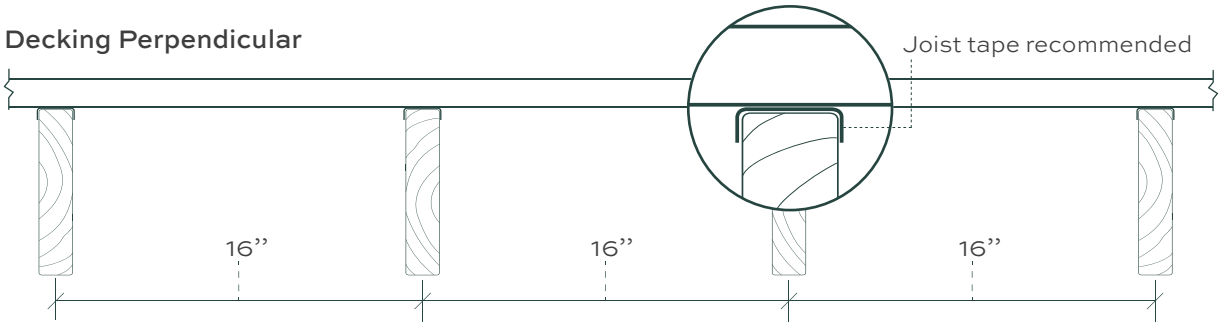
Always Allow		**Proper Circulation:** Ensure decking has airflow to reduce trapped moisture	Always Avoid		**Avoid Moisture:** Ensure moisture stays out of the unit stored onsite prior to install
		Ground Clearance: Ensure decking is stored elevated above ground & concrete			**Avoid UV:** Ensure decking is out of direct UV/sun which can lighten the color
		Proper Coverage: Ensure material is covered but ends are open for breathability			**Excessive heat:** Ensure our decking isn't taking excess heat in it's covered state

Joist Spacing

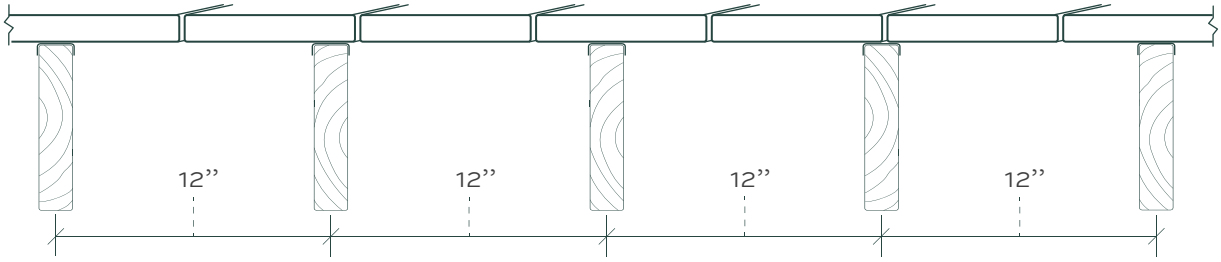
For decking installation, support joists should be no more than 16'' on center when installing deck boards perpendicular to the joists. If design requires angled installation, maximum of 12'' on center joist spacing is required. Best practice to lengthen the life of joist & prevent wood to wood contact requires the use of joist tape.

Before installation ensure all deck joists are spaced evenly & level. Consult your local building code for appropriate joist spacing.

Decking Perpendicular

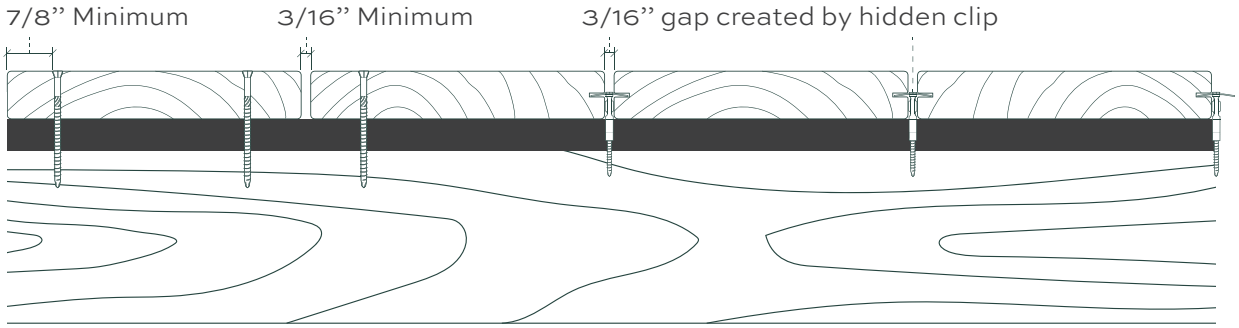


Decking Angled



Board to Board Spacing

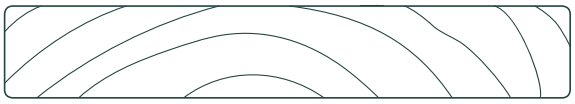
Minimum gap between boards is 3/16'' with 1/4'' gap recommended on deck boards over 4'' width. In WUI Approved Assembly, maximum gap between boards is 3/16''. When using the Weaverbird hidden fastener, a 3/16'' gap is built into the clip design creating consistent gapping throughout the deck assembly.



Fastening

With decking installations, proper fastening is crucial in long term performance.
With Thermacor we offer two primary deck profiles, S4S E4E for face fastening & S4S E4E G2E (Grooved 2 Edges) for installation with hidden clips.

S4S E4E Profile



S4S E4E G2E (Grooved 2 Edges)

When using a non-grooved deck board in a face fastened installation, pre-drilling & counter-sinking is recommended to avoid splitting & required when less than 8" from the end of the board. Pre-drilled holes should be ~1/32" smaller in diameter than the screw. Always use high grade stainless steel deck screws #8 or larger (nails are never approved fastening method for decking).

- Minimum screwing distance from edge: 7/8"
- Minimum screwing distance from ends: 1-1/2"
- Fasten with 2 screws per joist
- Sister at least two additional boards at each butt joint

Weaverbird Hidden Fastener (Grooved Decking)

The Black Talon hidden deck fastening system is easy to install & allows for easy maintenance. The 301 full hard stainless steel alloy allows clips to stay tight with the decking during expansion, contraction & sub structure movement.

Standard Clip	Angled Clip
Standard clips are designed to straddle 2x joists simplifying the installation process.	Angled clips are designed to sit on top of oversized joists & used for angled decking installation.

Each Box of Hidden Clips

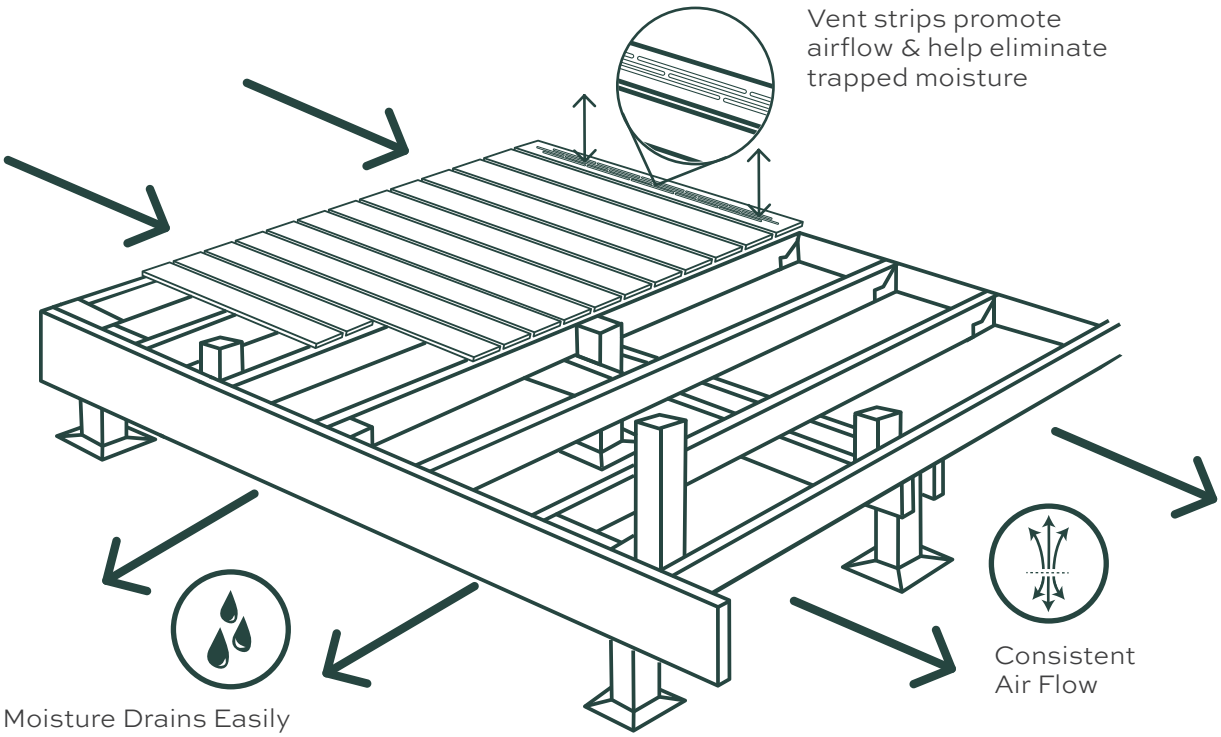
- Covers ~100 sqf' with 16" on center joists
- 170 clips, 170 screws & 2 torx head driver bits

Clips are black oxide treated 301 half hard stainless steel alloy to ensure a powerful, flexible & virtually rust free fastening system. Screws are #8 x 1-7/8" self tapping stainless steel. They are made of 305 stainless steel alloy & black oxide treated. Weaverbird decking profile is not compatible with all hidden fasteners, please consult your Weaverbird rep for questions.

Moisture Management

Air ciculation under decking is essential to both short & long term performance. All decking installations require relative humidity above & below the decking to fluctuate evenly & be equal at any given time. Decking design & installation must eliminate trapped moisture beneath the deck surface. Reference as follows for best practive to prevent moisture accumulation under deck.

- Install vent strips where decking meets the structure
- Leave minimum 5/8" air gap from edge of deck surface to main structure
- Cover the soil/ground with an impermeable membrane or concrete
- Install drains underneath or ensure moisture drains (sloped away from structure)
- When skirting deck, keep areas where air can flow or add vents to fascia
- Minimum of 4" of ground clearance from bottom of any edge



Ground Contact

Decking products like Thermacor can not be installed in direct contact with the ground. Deck boards must be installed to substructure made into a frame. The product must be installed with a minimum of 4" of continuous free area under the deck surface to promote ventilation & air flow. 5/4x4 or 2x6 is recommended in situations with limited clearance or restricted air circulation.

Finishing & Maintenace

Pre-finishing all deck boards prior to installation is the only way to ensure all 4 sides are coated evenly (Ask your Weaverbird rep about factory finished options). We highly recommend penetrating wood coatings/stains on Thermacor Decking with CUTEK® Extreme as the primary recommendation for field applications. CUTEK® Extreme acts as a wood stabilizer which helps the wood acclimate to it's new environment minimizing surface checking & wood movement. If the goal is to maintain the color, CUTEK® Extreme + UV Colortones is recommended. CUTEK® Colortones add pigment to the surface which is crucial in protecting against UV exposure.

- Finish all boards prior to install (or have delivered factory finished by Weaverbird)
- During installation, seal all ripped edges & cuts as best practice
- Ensure surface is clean, dry & free of debris when applying finish in the field

CUTEK® Extreme

CUTEK® Extreme is a high-performance, oil-based wood stabilizer with a unique self-healing effect. Penetrating deeply into wood, CUTEK® Extreme highlights the natural grain & beauty of wood while providing robust & long-lasting protection. CUTEK® Extreme will not flake or peel & maintenance is fast and simple - no need to sand or strip.

Cutek Extreme

Cutek Colortones

Cutek Quickclean

Cutek Reviver

Weathering & Silver Patina

Thermacor will naturally weather & patina over time. Even with Cutek + Colortone, the product will fade which means an ongoing maintenance plan is required if color retention is desired. If the deck surface has weathered to a silver patina, light sanding or Cutek Proclean will remove the surface silvering & restore the natural walnut tone of our Thermacor decking. After sanding or Proclean, a fresh coat of Cutek can be applied bringing vibrance to your deck surface.

- Product color & factory applied finishes are not covered under the product warranty

Ongoing Care

It is important the surface of your deck remains clean. Black surface stains can be caused by dirt, debris or pollen resting on the surface for extended periods of time. Periodically cleaning can help avoid stains as well as mold & mildew from forming on the surface. Soap & water can clean most stains.

Warranty

Thermacor Ash & Oak decking is covered under a limited 20-year Warranty. This warranty is made to the original purchaser of the Product(s) (the "Purchaser"); the original owner of the structure on which the Product(s) are installed; and to the next owner of that structure (together "Owner"). Thermacor express warranties may not be assigned to any subsequent owners of the structure.

Thermacor warrants that the Product(s) will remain free from rot & fungal degradation for a period of 20 years from the date of purchase. These warranties only apply to above-ground installations made in accordance with the instructions.

Failure to follow proper installation & finish practices will negate product warranties.

Wood is a product of nature, so individual pieces vary in performance. Decking, siding & eaves are singular components of a building. The performance is dependent on many critical factors including the structure's design, the craftsmen's skills, the use of other material, the products exposure & the climate. The manufacturer & merchant have no control over these variables. Following this manual will help in achieving satisfactory performance under most conditions; however, it will not guarantee flawless performance. Please refer to manufacturer's warranty for additional information.