

AMERICANA™ THERMALLY  
MODIFIED HARDWOOD  
**INSTALLATION  
GUIDEBOOK**



# WHAT IS THERMALLY MODIFIED WOOD?

**PENNSYLVANIA HARDWOOD + HEAT + STEAM. THAT'S IT.**  
No injecting of toxic chemicals. No stew of oils, plastics, and resins. Nothing but pure, beautiful, natural Pennsylvania hardwood.



Thermal Modification is a specialized process where wood is heated (using steam) to a very high temperature to transform it on a molecular level into a highly durable outdoor material. Thermal Modification turns the wood to a beautiful chocolate-brown color, which indicates that the wood has reached the proper temperature (around 400-410° F). At that point, the wood undergoes a fundamental change where the sugars and starches caramelize, making the wood a non-food source. The wood cell walls lock into place, reducing twisting, bending, and warping. The primary purpose of Thermal Modification is durability (resistance to rot, increased lifespan, resistance to insect damage). Durability and stability of the wood is multiplied many times, giving Thermally Modified wood a 25+ year lifespan outdoors with no chemicals added.

## WHAT TO EXPECT AFTER INSTALLATION

- ☑ Thermally Modified wood will begin to “season” or adapt to its environment.
  - ☑ *What you may see: superficial checking and occasional cracks near ends of boards. These do not get worse over time, and they do not indicate product failure. These adaptations are common to all woods. After several wet/dry cycles, many of these checks and cracks will diminish or close up altogether.*
- ☑ Without UV protectant, Thermally Modified wood will lighten and eventually turn silver. This process begins immediately and may take a year to complete. This is also a very natural process for all wood products and it is superficial. The original brown color can be restored at any time by sanding and applying a UV protectant. Power washing alone does not remove the silvering.

## CARE & MAINTENANCE

- ☑ To prevent “silvering” of the wood, we recommend using a penetrating UV protectant. Most UV protectants also resist water and allow it to evaporate before penetrating the wood. This in turn reduces the incidence of checking and cracking.
- ☑ Recommended UV protectants:
  - ☑ *Cutek™ Extreme (note: a pigment is required for UV protection) - [www.CutekAmerica.com](http://www.CutekAmerica.com), 888-220-2350*
  - \*Ask us about other finishes before using**
- ☑ For best results, we recommend applying UV protectant to all sides and ends before installation. Always follow protectant manufacturer’s instructions for application, re-application, and maintenance.

# DECKING

## INSTALLATION

1. Joist spacing: maximum 16" on center when decking is perpendicular, maximum 12" on center when decking is angled.
2. Minimum distance from ground: 8". It is essential that air can circulate under deck to equalize humidity. **Do not trap moisture.**
1. Minimum gap between boards: 3/16". Mantis®, InvisiFast®, or Turbo® Clip systems automatically space the boards. Clips must be matched to the groove that is milled.
2. Face-screw outside edges of first and last decking boards using stainless steel screws only. To avoid splitting, pre-drilling and counter-sinking is recommended.
3. Minimum screwing distance from edge: 3/4"
4. Minimum screwing distance from ends: 1-1/2"
5. Butt joints must be centered on joists.
6. Decking boards with Structural End Match do not need to meet end-to-end on a joist. Boards on either side of a Structural End Match must span minimum 2 joists.
7. In picture framed applications, gap and pillow mitered corners (1/8" spacing, 1/8" radius).

NOMINAL SIZE	NET SIZE	LENGTH	RECOMMENDED CLIPS	PROFILES*	SPECIES*	GRADES*
1 X 6	0.75" X 5.50"	4' to 12'	Mantis® 320	☉ Groove & Groove	☉ Thermally Modified Ash	Prime Grade
5/4 X 6	1.00" X 5.50"	4' to 12'	Mantis® 396 InvisiFast® Turbo Clip®	☉ Eased 4 Edge ☉ With or Without Structural End Match	☉ Thermally Modified Oak	

\*OPTIONS AVAILABLE IN ALL SIZES



# SIDING

## INSTALLATION

1. Use furring strips 1" x 2" (per local codes), maximum 16" apart, on top of sheathing† and house wrap. In horizontal installations, tongue must always face up.
2. Use stainless steel fasteners only.
3. Allow 12" gap at bottom between siding and ground. Ventilation gap behind siding must remain open to allow for proper airflow.
4. We recommended sealing before installation with stain, paint, or penetrating oil per manufacturer's instructions. See Care & Maintenance.
5. Siding boards with optional End Match do not need to meet end-to-end on a furring strip . Boards on either side of an End Match must span minimum 2 furring strips.

**† In areas prone to wildfire, sheathing must be Type X Gypsum Sheathing, minimum 5/8" thickness, installed on 2" x 4" studs, 16" O.C.**

NOMINAL SIZE	NET SIZE	COVERAGE	LENGTHS*	GRADES*	PROFILES*	SPECIES*
1 x 4	0.75" x 3.50"	3.125"	6' to 12'	Prime Grade	☉ Shiplap (No Gap)	☉ Thermally Modified Ash
1 x 5	0.75" x 4.50"	4.125"			☉ Shiplap Gap (3/8" Gap)	☉ Thermally Modified Oak
1 x 6	0.75" x 5.50"	5.125"			☉ Tex (No Gap)	☉ Thermally Modified Poplar
1 x 7	0.75" x 6.50"	6.125"			☉ Tex Gap (3/8" Gap)	
1 x 8	0.75" x 7.50"	7.125"			☉ Eased 4 Edge	
					☉ Custom Profile Per Order	
					☉ With or without Square End	

**\*OPTIONS AVAILABLE IN ALL SIZES**

# EXOCLAD RAINSCREEN

## INSTALLATION

1. Install Nova ExoClad QuickClip Rainscreen clips directly over sheathing<sup>†</sup> and house wrap. Tongue must always face up. Clips automatically create 3/4" air gap between Rainscreen and house wrap/sheathing.
2. Clips may be spaced up to 24" apart without optional End Match. With End Match, clips may be spaced 32" apart at alternating 16" increments with each row.
3. Attach clips with exterior grade #10 pan head screws.
4. Allow 12" gap at bottom between siding and ground. Ventilation gap behind siding must remain open to allow for proper airflow. Use Cor-A-Vent under top and bottom rows.

5. We recommend sealing before installation with stain, paint, or penetrating oil per manufacturer's instructions. See Care & Maintenance.
6. Use standard S4S or Rabbeted Corner Boards over butt joints.
7. Rainscreen boards with optional End Match do not need to meet end-to-end on a clip. Boards on either side of an End Match must span minimum 2 clips.

**† In areas prone to wildfire, sheathing must be Type X Gypsum Sheathing, minimum 5/8" thickness, installed on 2" x 4" studs, 16" O.C.**

NOMINAL SIZE	NET SIZE	COVERAGE	LENGTHS*	GRADES*	PROFILES*	SPECIES*
1 x 4	0.75" x 3.50"	3.00"	6' to 12'	Prime Grade	☉ ExoClad Rainscreen	☉ Thermally Modified Ash
1 x 5	0.75" x 4.50"	4.00"			☉ With or without Square End Match	☉ Thermally Modified Oak
1 x 6	0.75" x 5.50"	5.00"				☉ Thermally Modified Poplar
1 x 7	0.75" x 6.50"	6.00"				
1 x 8	0.75" x 7.50"	7.00"				

\*OPTIONS AVAILABLE IN ALL SIZES

# PORCH FLOORING

## INSTALLATION

1. Tongue & Groove porch flooring must only be used for covered porch applications with adequate pitch (1/8" to 1/4" per 12").
2. Joist spacing: maximum 16" on center when porch flooring is perpendicular, maximum 12" on center when porch flooring is angled.
3. Minimum distance from ground: 8". It is essential that air can circulate under porch to equalize humidity. **Do not trap moisture.**
4. Face-screw outside edges of first and last porch boards using stainless steel screws only. To avoid splitting, pre-drilling and counter-sinking is recommended.
5. Screw (pre-drill first) or nail through tongue at a 45° angle. For pneumatic floor nailers, use 18 gauge stainless nails.
6. Butt joints must be centered on joists.
7. Porch boards with Square End Match do not need to meet end-to-end on a joist. Boards on either side of a Square End Match must span minimum 2 joists

NOMINAL SIZE	NET SIZE	LENGTHS*	GRADES*	PROFILES*	SPECIES*
1 x 3	0.75" x 2.25" plus tongue	6' to 12'	Prime Grade	☉ Tongue & Groove Square Edge	☑ Thermally Modified Ash
1 x 4	0.75" x 3.50" plus tongue			☉ Tongue & Groove Microbevel	☑ Thermally Modified Oak
				☉ With or without Square End Match	
5/4 x 3	1.00" x 2.25" plus tongue				
5/4 x 4	1.00" x 3.50" plus tongue				

\*OPTIONS AVAILABLE IN ALL SIZES



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