



ARBOR  
WOOD CO

THERMALLY MODIFIED WOOD





# Responsibly produced thermally modified wood.

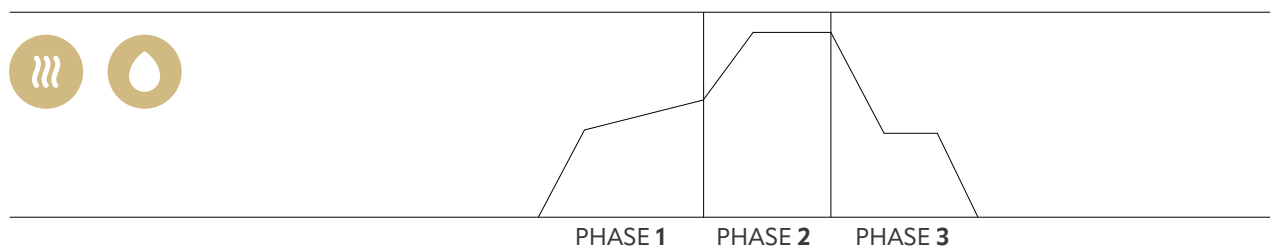
## WHERE INNOVATION MEETS BEAUTY.

Arbor Wood Co. produces thermally modified wood for a variety of outdoor and indoor applications including siding, decking, and dimensional lumber. Our process begins with a select grade of domestically grown and responsibly harvested timber which undergoes a thermal modification process using heat and steam. The result is a high quality, performance driven material which sustains the natural beauty and design element of wood all without the use of harsh chemicals.

Thermal modification is a unique craft which alters wood at the cellular level to create a material that is functionally and visually successful in a range of residential and commercial applications. High heat and steam replace chemicals to fundamentally modify Arbor Wood's hemicellulose, making it one of the most natural, chemical-free ways to extend the service life of a wood product. The wood is less absorbent, resulting in increased material stability with less warping/cupping and minimal expansion/contraction. Additionally, certain organic compounds are eliminated during modification thus removing the food source for rot and insects. The conversion of sugars to a nonfood source also turns the timber a darker, richer through-color, providing an appealing and refined aesthetic.

# Our process begins with a select grade of domestically grown and responsibly harvested wood.

Prior to modification, our rough-sawn timber is hand selected, graded for quality, and kiln dried to a consistent moisture content. The wood then enters our modification process where high heat and steam improve the dimensional stability, durability, and visual tone of the material. Once modified, these timbers are milled into finished profiles where any undesired characteristics such as checking or end-cracking are also removed. The result is a beautiful board which is straight, true and ready for use.



## **PHASE 1: TEMPERATURE INCREASE**

Kiln temperature is raised rapidly to reduce moisture content down to nearly zero and eliminate bound water from the hemicellulose in the wood. With this, the food sources for mold, rot, fungal decay and insects are also removed.

## **PHASE 2: THERMAL MODIFICATION**

The second phase is where peak temperature is hit and thermal modification occurs. The hydroxyl groups within the hemicellulose are broken, thus rendering the wood resistant to water absorption. Naturally occurring sugars are converted and give the wood a slightly darker, richer appearance.

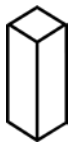
## **PHASE 3: COOLING & RE-CONDITIONING**

Temperature is reduced and steam introduced to complete the process. The steam cools and conditions the wood to a final moisture content of 4-6% improving dimensional stability.



# Lasting Beauty and Lasting Impact

The thermal modification process affects wood's relationship with water by breaking down the hydroxyl groups in the wood and eliminating the bound water, making Arbor Wood less prone to mold, rot, and fungal decay. The wood is also less likely to absorb new moisture and has a reduced equilibrium moisture content, reducing the chance of swelling and shrinking by up to 60%. The lower moisture content reduces the overall weight of the wood and helps support the general workability of Arbor Wood.



## SOLID & STABLE

Dimensional stability is increased as expansion and contraction is reduced by up to 60%.



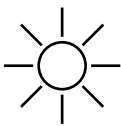
## DECAY RESISTANT

Less water absorption makes it less susceptible to mold, rot & fungal decay.



## ULTIMATE WORKABILITY

Arbor Wood may be glued, painted, or finished similar to standard wood to achieve the desired look for your next project.



## ENHANCED APPEARANCE

Thermally modified wood will have richer tones that extend throughout the entire thickness of each board.



## CHEMICAL FREE

The thermal modification process uses nothing but heat and steam.



## LIGHTER WEIGHT

A significantly lower moisture content reduces the physical weight of each board for easier handling and installation.



# Sustainability

Arbor Wood is a premier choice for sustainably harvested thermally modified wood. Our material can be used in place of more expensive tropical wood species and is a domestic, renewable, and environmentally conscious option.



Learn more about our Sustainability Efforts



## RENEWABLE

Manufactured domestically from trees sourced and harvested in responsibly managed forests in the United States.



## LONGER LASTING

Microscopic changes to the wood have macro results - longer lasting, hydrophobic, resistant to rot and decay - just to name a few.



## CHEMICAL FREE

High heat and steam replace more traditional chemicals, which are otherwise so prevalent in building materials.



## CARBON STORAGE

Using wood can reduce carbon emissions due to its properties as a natural carbon sink.

## Associated Sustainability Organizations



*Arbor Wood is a sound choice in environments typically unforgiving to wood, such as exterior decking and siding or interior flooring, or where a low-maintenance natural wood product is desired.*



## Products & Applications

Thermally modified wood can be used in an array of commercial and residential applications. Popular applications are in external environments where moisture and humidity would compromise a lesser-grade material.



### **SIDING**

Arbor Wood siding is produced from domestically sourced and responsibly harvested wood. We produce a range of wood species, profile and finish options, including our take on traditional Japanese charred cladding.



### **DECKING**

Arbor Wood decking is available in a range of species and profile options. Our modified hardwoods prove an eco-conscious alternative to exotic hardwoods, and our softwoods a more natural and durable alternative to chemically-preserved lumber.



### **DIMENSIONAL LUMBER**

From windows and doors to interior flooring and even landscape furnishings, Arbor Wood is available in a range of profiles to allow for a higher performance natural wood alternative.

# Collections

Arbor Wood is available in a variety of bold and distinct factory finishes to fit your project.

## **natr1** minimal, raw, refined



+ ash  
+ no finish



+ oak  
+ clear oil



+ pine  
+ clear oil



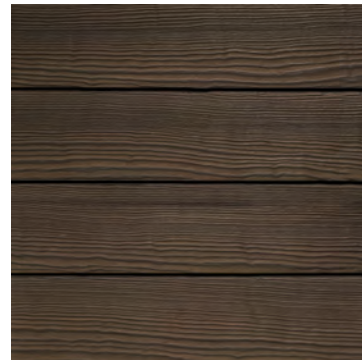
## **brnsh** burned, bold, beautiful



+ burned pine  
+ black oil



+ burned & brushed pine  
+ black oil



+ burned & brushed pine  
+ brown oil



## **elmnt** expressive, earthy, exquisite



+ brushed pine  
+ grey oil



+ brushed pine  
+ white oil





# Accessories

Arbor Wood Co. is proud to offer a wide range of accessories compatible with our siding, decking, and dimensional lumber products. From hidden fasteners, screws, furring strips, and end sealer, we are able to provide everything you need to complete your project right.



Scan for more information and to see our full lineup of accessories and finishes.

**DeckWise®** **Quarrix®**



# Maintenance



## COLOR CHANGE

Thermal modification changes the naturally occurring sugars in the wood resulting in beautiful, rich tones that extend through the full thickness of the material. Since Arbor Wood is still a natural product, the grain and unique characteristics of the wood remain. In an exterior environment, Arbor Wood will move to gray when unfinished and the application of UV inhibitors help slow this process similar to non-modified products.



## FINISHES

It is recommended to finish natural Arbor Wood products with an exterior UV protective surface finish. We recommend a regular maintenance schedule of CUTEK® Extreme along with a Colortone UV inhibitor to help maintain the original tone of the wood.



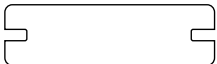







# Profiles & Dimensions

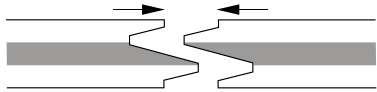
## SIDING

	Profile	Species	Dimension
	Tongue & Groove	Ash Pine Oak	.75" x 5"
	Tongue & Groove	Ash	.75" x 3"

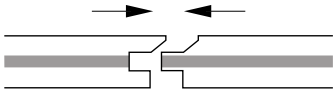
## DECKING

	Profile	Species	Dimension
	Hidden Fastener	Ash Oak	1" x 5.5"
	Non-Grooved	Ash Oak	1" x 5.5"
	Hidden Fastener	Ash	1" x 3.5"
	Non-Grooved	Ash	1" x 3.5"
	Hidden Fastener	Ash	.75" x 5.5"
	Non-Grooved	Ash	.75" x 5.5"
	Hidden Fastener	Pine	1" x 5.25"
	Non-Grooved	Pine	1" x 5.25"

### END MATCH DETAIL:



5/4 DECKING







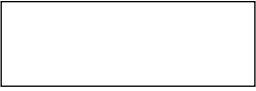






4/4 DECKING & SIDING

Scan for additional resources including mechanical specifications, installation guides and warranty information.



**DIMENSIONAL LUMBER**

	<b>Species</b>	<b>Dimension (nominal)</b>	<b>Dimension (actual)</b>
	Ash Pine Oak	1" x 2"	.75" x 1.5"
	Ash Pine Oak	1" x 4"	.75" x 3.5"
	Ash Pine Oak	1" x 6"	.75" x 5.5"
	Ash Pine Oak	1" x 8"	.75" x 7.25"
	Ash Pine Oak	2" x 2"	1.5" x 1.5"
	Ash Pine Oak	2" x 4"	1.5" x 3.5"
	Ash Pine Oak	2" x 6"	1.5" x 5.5"
	Ash Pine Oak	2" x 8"	1.5" x 7.25"
	Ash Pine Oak	2" x 10"	1.5" x 9.25"
	Ash Pine Oak	2" x 12"	1.5" x 11.25"
	Pine	4" x 4"	3.5" x 3.5"



Arbor Wood. **For Good.**

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[arborwoodco.com](http://arborwoodco.com)



**MADE IN  
THE USA**