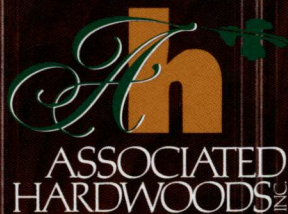


Introducing The

# Next Generation Of Exterior Hardwoods



We Treat Wood And



# INTRO:

Rather than using harsh chemicals that could damage the environment, Associated Hardwoods uses an ecologically friendly Thermal Modification Process to make hardwood resist decay as well - if not better than - tropical hardwoods or chemically treated woods.

By drying and modifying the wood in specially designed kilns at over 400 degrees, Associated Hardwoods minimizes stress and tension while equalizing moisture content throughout the wood. Normally, you'd have to store lumber for 10 years to match the conditioning effects of this revolutionary Thermal Modification Process.

## This revolutionary heat treatment:

- Improves resistance to decay, weather and insects
- Reduces moisture deformations which cause stress
- Increases dimensional stability and surface hardness
- Improves heat insulation

This Thermal Modification Process reduces expansion, shrinking, swelling and water absorption speed – better than conventionally treated wood. The wood's absorption speed is reduced because the thermal treatment actually alters the molecules of the wood so it absorbs less water.

The Thermal Modification Process also changes sugars in the wood into a product that reduces fungi, molds, and insect problems.

Associated Hardwoods uses the only technology to achieve this level of durability and dimensional stability without destroying the wood itself.







## What can Associated Hardwoods' Thermally Modified Hardwood be used for?

Any non-structural above-ground or on-ground application including:

- |                   |                                |
|-------------------|--------------------------------|
| Decking           | Door jambs                     |
| Flooring          | Wall coverings                 |
| Outdoor furniture | Saunas                         |
| Doors             | Hot tubs                       |
| Shutters          | Fencing                        |
| Exterior trim     | Playgrounds                    |
| Molding           | Signs                          |
| Soffits           | PVC and composite alternatives |
| Pergolas          | Musical instruments            |
| Windows           |                                |

## Can it be used for ground contact?

Use the chart below to determine the right treatment level for the expected level of ground contact:

Ground level	Recommended treatment level	Expected durability vs. conventionally untreated wood
Above ground	D3	Lasts 3 to 5 times longer (up to 20 years)
Ground contact	D2	Lasts 5 to 7 times longer (up to 25 years)

Wood products must be properly stained, painted and maintained  
 We recommend the D2 treatment level for best resistance against fungi, mold, and insects  
**UNDERGROUND** Not recommended at this time



## Is it fire retardant?

It is not fire retardant, but since all tar has been removed, it may prevent fire from spreading as quickly as it otherwise would.

## How does the strength of it compare to conventionally processed wood?

Associated Hardwoods' thermal treatment increases the wood's surface hardness but slightly reduces its strength values. For decking applications, Associated Hardwoods recommends running thermally modified decking boards on 16" centers, with gaps of 1/4" to 3/8".

## Does the thermal modification affect the color of the wood?

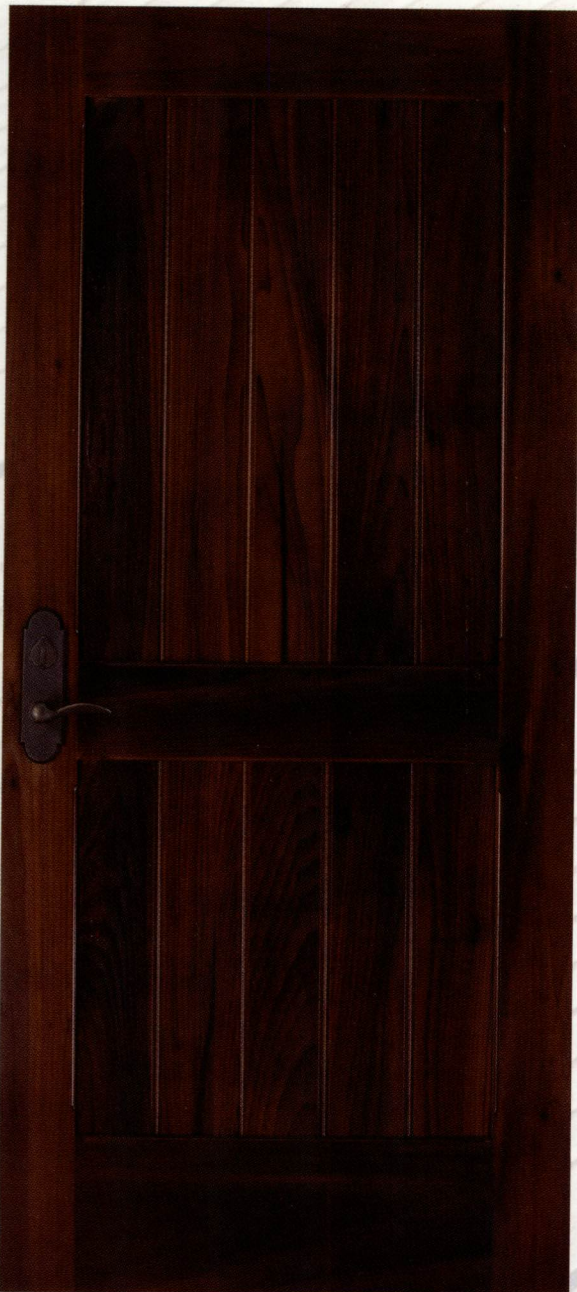
Associated Hardwoods thermal modification changes the wood's natural color into a dark, attractive shade throughout the wood.

## Can it be painted or stained?

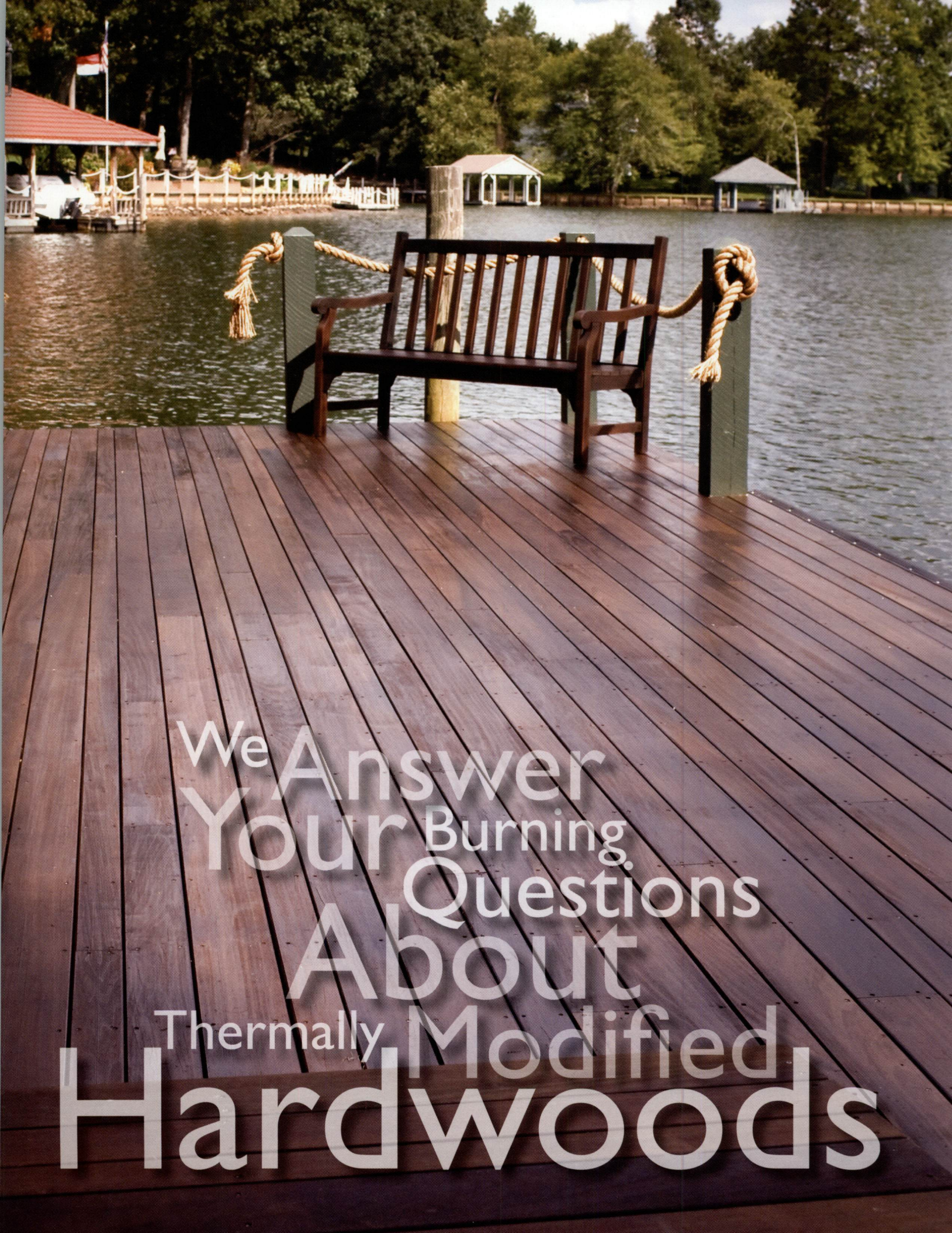
Although Associated Hardwoods' Thermally Modified Hardwood resists rot, decay, and insects, it still needs to be properly maintained, and protected from the ultraviolet rays of the sun - especially in harsher environments.

Associated Hardwoods' Thermally Modified Hardwood can be painted and/or stained just like other exterior woods. Stain or oil are better choices for high traffic areas. The paint or stain will be absorbed more slowly, thus slightly increasing the drying time.

Professional grade sealers are recommended and you can expect the treatment to last to manufacturer's specifications before needing to be resealed.







We Answer  
Your Burning  
Questions  
About  
Thermally Modified  
Hardwoods





## When used as decking, do the ends of it need to be sealed?

Yes, the ends do need to be sealed for proper installation, and long-term performance.

## Can it be edge glued?

Gluing Thermally Modified Hardwood is different than gluing conventionally processed wood. The viscosity must be high enough and the glue has to be thick rather than thin. Since water absorbs much slower into Thermally Modified Hardwood, the glue must not be forced out of the joint



Depending on the type of glue, you may have to allow for more open time, but your compression time and RF gluing process remain the same as with conventionally processed wood.



# What type of joinery works best with it?

Pre-drilling is highly recommended

Round-nose tenon

Double-doweled, glued and screwed corner joinery

Stainless steel fasteners, especially in outdoor applications

Hidden fasteners in the Z channel

# What is the best tooling to use with it?

Either high-speed steel or carbide.

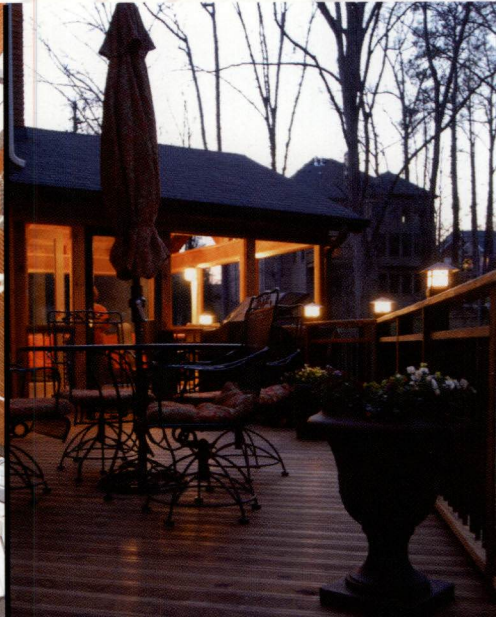
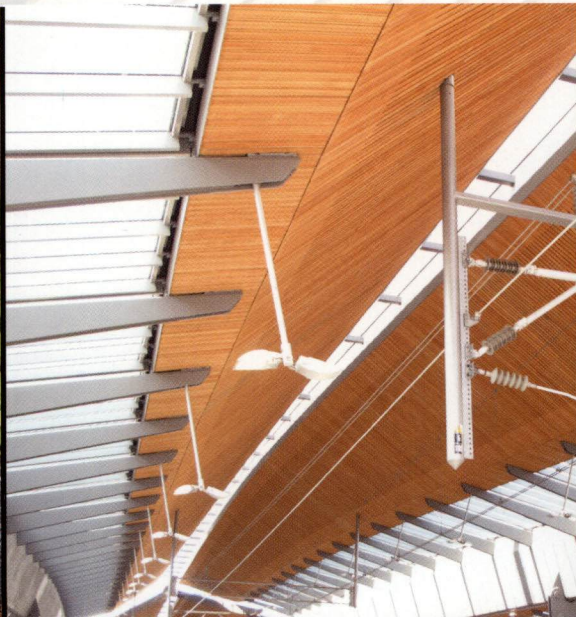
Carbide may be better at the same angles with the same blades for cutting. It's also easier to produce a good surface using carbide tooling because drier wood surfaces are much easier to work with - even if

the cutting heads are not perfectly sharp.

Whether you use high-speed steel or carbide tooling, you have to be careful of cupping. The drier the wood is, the more it tends to cup and split.

# What molder speed is recommended for use with it?

Experiment with slowing down the molder and reduce the roller pressure to compensate for Thermally Modified Hardwood's tendency to cup and split.







## Grown In America. Manufactured In America. Replanted In America. That's What We Call Economic Responsibility.

Lumber companies are often portrayed as being at odds with the environment, but at Associated Hardwoods, our business and our livelihood directly depend upon healthy, sustainable, thriving forests. That's why we dedicate a large portion of our resources to promoting, and protecting the

growth of our forests and safeguarding our environment for future generations. Associated Hardwoods has taken significant actions in all sectors of our business operations to preserve our forests and our environment.

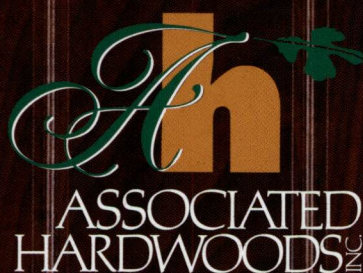
### The Appalachian Hardwood Forest is

Growing an average of 2.29 trees for every tree that is harvested.

Growing in 12 states in the eastern U.S. with more than 65 million acres.

Growing Red Oak, White Oak, Hard Maple, Soft Maple, Cherry, Poplar, Walnut, Ash, Beech, Birch, Hickory and Basswood.

Growing "Green" Lumber Resources for your products and customers.



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