

Service, Storage, and Care Guide

CARBON SMART WOOD™

by CAMBIUM



Thermally modified wood is used for outdoor applications due to its enhanced durability, stability, and resistance to decay. To ensure the longevity and beauty of your thermally modified wood products, it is important to follow proper care and maintenance practices. This guide provides you with essential tips and guidelines for maintaining and preserving the natural beauty of your thermally modified wood.

Storage & Handling

Proper Storage and Acclimation of Carbon Smart™ Wood Products

To ensure optimal performance, Carbon Smart Wood products should be stored in the environment where they will be installed. Here are some key points to consider:

- **Storage Surface:** Place the wood on a flat, level surface, elevated off the floor or ground.
- **Support:** Ensure adequate support is in place to prevent sagging and stack the wood uniformly.
- **Protection:** Keep the wood covered or under shelter, using a waterproof tarp until installation.
- **Air Flow:** The tarp should be loose to promote air circulation and acclimation.
- **UV Exposure:** Be aware that direct exposure to UV light can lighten the tone of the boards.
- **Acclimation:** It's important to allow the wood to acclimate to local site conditions before installation. We recommend letting all products sit on-site for 1-2 weeks to adjust to the moisture levels of the environment.

While Thermally Modified Carbon Smart Wood has a lower moisture content and experiences less expansion and contraction compared to standard wood, proper acclimation to local conditions is still advisable.

Maintaining a Clean Surface

It is important to ensure the surface of your wood remains clean. Black surface stains can be caused by dirt, debris, pollen and other airborne, and microscopic elements resting on the surface of the material. Certain environments provide exceptional growing conditions for mold and fungus, conditions that often fall within, but are not limited to shaded decks or siding. This does not impact the integrity of the wood, but it does mean you should be clearing the surface of your siding or deck more often and taking additional preventative care considering surrounding conditions.

For optimal protection, it is advisable to apply an exterior oil-based decking finish. We recommend CUTEK® EXTREME, a high-performance, oil-based wood stabilizer with a unique self-healing effect. Penetrating deeply into wood, CUTEK® Extreme highlights the natural grain and beauty of wood while providing robust and long-lasting protection. Applied as a clear oil will allow wood to naturally silver over time. Mixing in one of the 18 CUTEK® Colortones will help enhance and maintain the natural look of your wood or alter your wood color to meet preferred hues.

Weathering

Thermal modification changes the naturally occurring sugars in the wood resulting in beautiful, rich tones which extend through the full thickness of the material. Since Carbon Smart™ Wood is still a natural product, in an exterior environment, unfinished Carbon Smart™ Wood products will move to gray. This does not impact the performance characteristics of the wood itself.

Staining & Leeching Due to Weather

In the case of modified species, most of the tannins are removed during the thermal modification process. Some residual particulates can be found present in small doses. This is a short-term issue as they will deplete over time.

Tannins (polyphenols) in particular are likely to react with alkaline surfaces such as concrete to form an unsightly red/brown stain. If left alone to weather, the level of extractive runoff will reduce and result in a significant reduction in ongoing staining over time. Chemical cleaning and removal of these stains is a simple and easy process with deck cleaner like CUTEK® Wood Reviver.

Natural Aging

If a silver patina look is desired there is really no action needed. Left natural, Carbon Smart™ Wood products will develop a silver patina over the course of the first 6-18 months after installation. The speed of this graying process depends on the intensity of exposure to environmental elements like the sun and rain combined with the type of application, for example, due to its horizontal exposure, decking tends to weather faster than siding.

Another option is to finish with just a clear oil with no UV additive. This method will help protect and condition the wood while still allowing it to move to grey. It is best to coat all sides of the board prior to installation with an additional application on the exposed face after installation.





Maintaining Color Tone

To maintain the original color you must apply a finish that has UV protection in it and is specifically formulated for use with thermally modified wood (see list below for some recommended products). It is best to coat all sides of the board prior to installation with an additional application on the exposed face after installation. Be sure to allow proper time between applications to allow the oil to fully penetrate and dry. Color will need to be maintained based on preference. In general, decking will require maintenance every 1-3 years and siding every 3-5 years.

- CUTEK® Extreme + CUTEK® UV Colortone
 - CUTEK® Extreme by itself does not contain UV protection
- OSMO Decking Oil + OSMO UV Protection

Regardless of the finish you choose, apply it evenly using a brush, roller, or spray gun. Follow the manufacturer's recommended application method and coat thickness. Ensure you cover all surfaces, edges, and end grain to protect the wood uniformly.

Remember to always follow the specific instructions provided by the manufacturer of the finish you choose, as different products may have varying application techniques and drying times.

Bringing Color Back

A light sanding or application of a deck cleaner can be used to remove the surface silvering and restore the original wood tones. We do not recommend power washing as it has the potential to damage the wood fibers. The use of a deck brightener product can also help revive and prepare the wood for application of finish. Allow the wood to completely dry before applying a finish with a UV inhibitor (see above).



CARBON SMART WOOD™
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(443) 840-7373

sales@cambiumcarbon.com

carbonsmartwood.com

Scratch

A large warehouse filled with stacks of lumber. The stacks are organized into several rows, with some lumber secured by white straps. The wood has a light, natural finish. The background shows the interior of a large building with a corrugated metal roof and wooden support beams.

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Storage & Handling

Carbon Smart™ Wood products should be stored in the environment they will be installed, on flat, level surface, elevated off the floor or ground, with adequate support to prevent sagging, stacked uniformly, and remain under cover or covered with a waterproof tarp until ready for installation. Tarp should be loose to enable air flow and acclimation. Direct UV exposure can cause the boards to become lighter in tone. It is good practice to ensure the wood has properly acclimated to local site conditions before installation. We recommend all products to sit on site for 1-2 weeks prior to installation to acclimatize to the moisture of the environment

Thermally Modified Carbon Smart™ Wood has a lower moisture content and the expansion/contraction is less than standard wood. It is still a good practice to ensure the wood has properly acclimated to local site conditions.

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For more questions in regard to the maintenance of your Carbon Smart™ Wood product, visit carbonsmartwood.com or send us a message at info@carbonsmartwood.com.



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