Natural Wood; Un-Natural Performance

Frequently asked questions and answers. A must read before you purchase.

1. Can you heat-treat different wood species?

The manufacturing and use of both softwood and hardwood species such as North American Ash and European Pine have produced positive results.

2. How long does thermally modified wood last?

Although evidence from long-term use of thermally modified wood is not yet available in North America, tests have shown that the material's resistance to decay is far superior to that of untreated softwoods and surpasses that of many tropical hardwoods. The service life can be affected by many factors such as the level of maintenance performed on thermally modified wood over its lifetime.

3. What are the guarantees?

Although there are no specific guarantees for the product, tests conducted by several independent research institutes have shown consistently positive results where durability is concerned.

4. Why is thermally modified wood so durable.

The durability is based on the changes in chemical compounds in the wood. Wood's hemicellulose (sugar compound) is degraded, leaving no nutritive matter for fungi. As a result, the wood is less likely to decompose, even when exposed to dampness and extreme humidity. There are several Class levels to wood and this refers to a **wood's** ability to resist elemental and natural forces of decay. Based on this the Ash receives a Class 1 (Very Durable) and the Pine receives a Class 2 (Durable). Very Durable falls into a 25 + year life expectancy and Durable falls in 15+ years life expectancy.

5. Are any chemicals added as part of the process?

No chemical additives are used in the production process; only energy and steam are required. Hence, thermally modified wood can be utilised/discarded like normal wood after its life span is complete.

6. Can thermally modified wood be used in contact with the ground?

Results have shown that even with ground contact thermally modified wood does not decay; however, when constantly immersed in water or making soil contact, it loses its strength properties due to certain chemical reactions. The mechanisms are yet unknown, and further research is needed. Currently it's not recommended that thermally modified wood be used in continuous direct ground contact.

7. What kind of surface treatment is needed for outdoor use?

Utilizing the right coating will assist in helping maintain the woods preferred appearance and assist in protecting its surface. Flat surfaces such as decking require a higher degree of attention to guard against graying, discoloration and surface degradation. Annual maintenance of exterior wood surfaces should be expected to help maintain the customers preferred appearance and increase the woods longevity.

8. Is the smell of thermally modified wood harmful?

Tests have shown that there are no harmful emissions from thermally modified wood, but the smell might not be appreciated by everyone.

9. Does the smell disappear?

If surface treatment is applied to a product the smell will disappear and not return. If used without surface treatment, the smell will gradually dissipate until reaching a level where it is no longer noticeable.

10. Can thermally modified wood be glued?

Glues suitable for gluing heat-treated wood are 1- and 2-component PVAc glues, 1- and 2-component polyurethane glues (PU), resorcinol-phenolic glue (RP) and emulsion polymer isocyanate glue (EPI). Since wood absorbs moisture more slowly after thermal modification, the open time for waterborne adhesives can be 6 times greater than when used with unmodified wood. The more popular alternative to conventional bonding agents seems to be EPI- (emulsion polymer isocyanate glue) based adhesives.

11. Can thermally modified wood be used in load-bearing structures?

Due to insufficient information, we recommend that thermally modified wood **NOT** be used structurally for load-bearing purposes.

12. Is thermally modified wood termite resistant?

Termites attack buildings from the earth below, avoiding direct sunlight whenever possible. Termites will attack both wood and concrete-based materials in their quest for nutrition. Various measures have been developed to control the problem; these include polythene membranes being installed in the foundations of the building. Also, various bituminous paint products are available to seal possible routes up the building. So far, the test results indicate that thermally modified wood is unable to resist attack from termites. However, local tests are recommended since termite types vary from one region to another.

13. Why is thermally modified wood brittle?

Due to the low moisture content remaining within the wood after thermal modification has occurred the wood will become brittle. Attention must be paid to its handling. Dropping the pieces may damage the edges. Some suppliers ship with protective cardboard to help reduce potential damage during transportation and storage.

14. Will it fade or keep its original color?

Yes, it will fade - all wood products do - but this will not impact rot resistance or stability. Utilizing the right coating will assist in helping maintain the woods preferred appearance and assist in protecting its surface. Flat surfaces such as decking require a higher degree of attention to guard against graying, discoloration and surface degradation. Annual maintenance of exterior wood surfaces should be expected to help maintain the customers preferred appearance and increase the woods longevity.

15. What is the Janka hardness of the wood?

White ash (Fraxinus americana) has a janka hardness of 1320. Scots pine (Pinus sylvestris) has a janka hardness of 540.

16. What colors are available?

The colors are the natural result of the thermal modification process. White ash is a rich exotic brown, and Scots pine is a lighter golden brown. Unoiled, both will naturally weather to grey over time.

17. Where do the Ash and Pine come from?

White Ash is sourced from North America and Pine is sourced from Europe.

18. Are there any chemicals used in the process of thermal modification?

No, absolutely no chemicals - only heat and steam.

19. What certifications does the wood have?

The North American Ash has FSC chain of custody certification and also carries Wildland Urban Interface (WUI) certification as per requirements governed by the State of California through it’s regulatory body called CALFIRE.

20. What is the flame spread class for your wood?

The North American Ash has a Class B ASTM E84-16A using a standard testing method for surface burning characteristics of building materials. The Pine had not been tested at the time of this publication.

21. Does your siding come with a hidden fastener system?

No, our siding does not require a hidden fastener system. All our siding is produced in a tongue and groove profile. Our siding is fastened with the use of stainless-steel nails.

22. What length of stainless-steel nails are utilized in the fastening of your siding?

You should choose a nail that is three times as long as the thickness of the material you are fastening. Our siding is 20 mm or 7/8" thickness so a nail between 2 and 2.5" is normally utilized. The nails should have ring or spiral shanks; smooth-shank nails tend to pop out.

23. Why do I need to use stainless steel screws or nails with our wood.

To avoid a term called "black bleed" which is a common reaction you get when galvanized fasteners react with the surrounding wood.

24. What lengths can I expect to get in the decking and siding?

All decking and siding is sold random length. We end match our product to accommodate the random lengths. Once installed it will provide a random seam appearance.

25. Does your decking come with a hidden fastener system?

It does and the edges of the deck boards are grooved to accommodate our hidden fastener profile. Each fastener comes with a stainless-steel screw to allow fastening of the hidden fastener to the wood joist structure below.

26. How much does your wood weigh?

Our Ash siding and decking products weigh approximately 2 lbs per square foot and the Pine decking and siding products weight approximately 1 lb per square foot.

27. Is the wood maintenance free?

No, like all exterior wood products some care is required to maintain the woods original appearance and/or to protect the woods surface. It's expected that during the life of your exterior wood deck or siding that periodic maintenance such as the use of a cleaner and brightener agent and coating of the woods surface will be required.

Note: Please test all cleaning and coating products before applying to your entire surface.

28. Can I power wash the surface of this wood?

Power washing is an acceptable process. Please keep in mind that Ash is an "open grain" wood so having the proper distance and pressure is important as to not lift the grain of the wood. I would suggest a low to medium pressure and make sure the spray pattern is in a fan position. Power washing is the first step in the process and may not give you the results you are looking for but it's normally performed before any next maintenance step as power washing will remove any standing dirt and grime from the surface.

29. Cutting the wood?

During installation it’s expected that some wood will need to be cut to conform to the dimensions of what our wood is being applied to. Our wood cuts easily but due to the wood’s low moisture content to help alleviate end splitting it’s recommended you apply an end cut sealer to the cut area. We sell the end cut sealer product. It only needs to be applied if the wood has been cut.

30. **Does your wood splinter?**

The surface of the wood is not prone to splintering which makes it less likely that you would obtain a sliver while going barefoot.


CFPWoods