WOOD JUICE™

"The Dry Wood Stabilizer"

WOOD JUICE is a compound of modified polymers. It is formulated to penetrate and stabilize dry to semi-dry wood to prevent future cracking.

WOOD JUCIE works by saturating the wood and displacing the remaining water. Once the wood dries, WOOD JUICE leaves a thin coating on the cell walls of the wood. This process keeps the cells from shrinking, which reduces future cracking, checking and irregular drying. Shrinkage is reduced up to 500% depending on the orientation of the wood grain and how dry the wood is prior to treating with WOOD JUICE.

WOOD JUICE is non-toxic, non-hazardous, does not contain silicone, will not discolor the wood, is non-hygroscopic (meaning it will not attract and retain water), will not oxidize, decompose or migrate in the wood when exposed to different degrees of temperature and relative humidity.

WOOD JUICE can be brushed on or the wood can be immersed (soaked) in WOOD JUICE (use full strength, do not dilute).

The following are some of the most common questions and answers relating to the use of WOOD JUICE.

Q: What is the difference between WOOD JUICE and PENTACRYL and how do I know which one to use?

A: Both products are wood stabilizers. However, they are each formulated differently. PENTACRYL was developed to treat green or freshly cut wood with a higher moisture content, typically above 30-35%. The wetter the wood, the better PENTACRYL will work.

WOOD JUICE is formulated to treat dryer wood with a lower moisture content. It is formulated to compensate for the difference in the reduced amount of water in the wood. Use on wood with moisture content between 15%-25%. Dryer wood (moisture content below 15%) will only need 1-2 coats. Do not saturate wood that is completely dry as the Wood Juice will just sit in the wood and leave it tacky.

When to use WOOD JUICE:

- ***Low Moisture Content*:** A general rule is to use WOOD JUICE if the wood moisture content is less than 20-25%, but greater than 15%.
- ***Naturally Stable Wood:*** WOOD JUICE can be used on some green wood that is stable by itself such as Basswood or Aspen.
- ***Thin Cuts of Wood:*** Turned wood that has thin walls (such as bowls), wood that is carved thin or wood that is cut thin (such as veneer) is good for WOOD JUICE since much of the tension is relieved in these cuts.
- ***Small Pieces:*** WOOD JUICE can be used on small pieces of dry or green wood, such as Fruitwoods. Again, small, thinner pieces have less tension.
- ***Older Wood:*** Use WOOD JUICE on older raw wood that is dry and you would like to condition and rejuvenate it. Use just 1 coat for this. Note: WOOD JUICE will penetrate into wood that has a sealer applied first.

Q: How long will it take for the wood to dry?

A: There is not a specific answer for drying time. Drying time differs depending on the original moisture content, temperature, relative humidity, type of wood and its thickness. If the piece is a turning that is finished thin, then it may be dry enough to apply a finish in 1-2 months. If the piece is large, like a carving or cross-cut section, it may take 1 year or more to completely dry. Remember, it is the water in the wood that needs to dry. Note that the wood must be dried ***slowly*** (especially hardwood and fruitwood) in an unheated area away from direct sunlight and any excessive air movement.

To help slow the drying, wood can be placed in a cardboard box with the top loosely closed. Cardboard can be cut and taped to the sides or END GRAIN SEALER applied.

By displacing moisture in the wood, WOOD JUICE does help to speed the drying process by up to 30%.

To help determine if the wood is dry, you can use a moisture meter as WOOD JUICE will not affect the reading. Keep in mind a moisture meter will only read the moisture content of the wood surface and is not a good indicator for measuring the inside of large pieces.

Q: Can wood treated with WOOD JUICE be finished with conventional finishes?

A: Yes. Wood treated with WOOD JUICE can be finished with urethane varnishes, lacquers, tung oil, linseed oil, and waxes - all have been successfully tested. The wood can also be stained with analine dyes or oil stains. We recommend not using water based products as they may leave the wood surface tacky (it is adding water back into the wood).

Be sure that the WOOD JUICE has ***thoroughly dried*** and to lightly clean the surface of the wood with a solvent, mineral spirits, or acetone if needed, before finishing. Be sure the solvent has dried prior to applying a finish.

Q: Can a colorant be added to WOOD JUICE?

A: Yes. A colorant can be added to WOOD JUICE. Analine dyes, oil base dyes and stains, and pigments can be mixed with WOOD JUICE prior to treating. Again, we recommend oil or alcohol based products as water based products can leave the wood surface tacky. The amount of colorant added will depend upon the desired effect. Be sure to test a sample piece first.

Q: Does WOOD JUICE absorb all the way through wood?

A: Yes, WOOD JUICE will absorb all the way through the wood. The time it takes depends upon the type and size of the wood. Keep in mind that most of the absorption is through the end grain. In between brushing applications, the wood should be wrapped in plastic in order to help absorption and prevent premature evaporation. ***Remove the plastic during drying*** - this will allow the wood to breathe and prevent mold growth.

Q: How much WOOD JUICE should I use?

A: The amount of WOOD JUICE absorbed into the wood will depend upon the type and size of wood. For very dense grained hardwoods, it will take as little as 1-3 ounces per board foot and for very soft open grained wood, it will take as much as 6 ounces per board foot. Refer to the ***Wood Calculator*** on our website to help determine the amount needed for your size and type of wood: www.preservation-solutions.com

Q: Does WOOD JUICE have to be absorbed all the way through the wood to be effective?

A: In most cases, semi-dry wood should be completely saturated with WOOD JUICE. In some cases however, woods that are quite stable or a type of cut with less tension may only require several coatings to the surface, while other woods with wild grain, a lot of tension, or those that are unstable such as fruitwoods, require full saturation. Also, wood with a moisture content below 15% will only require 1 application. The individual user will have to determine whether or not to completely saturate the wood.

Q: Can too much WOOD JUICE be applied?

A: No, too much cannot be applied to semi-dry wood. The wood will only absorb until it is saturated. Note: If using the soaking method, any WOOD JUICE left over in the soak can be reused on other wood or strained and poured back into the container. Again, do not saturate wood with a moisture content below 15%.

Q: How do I know when WOOD JUICE is done soaking?

A: Using the soaking method for higher moisture content wood, 24 hours per inch of thickness is generally sufficient. It will not hurt the wood to soak it a little longer.

Q: Will wood treated with WOOD JUICE weigh more?

A: Depending upon the type and density of the wood, it will weigh only slightly more when the wood is dry. On average, a cubic foot

of wood could will weigh approximately 8-10 ounces more than wood that was untreated.

Q: Will turning and carving be easier with wood treated with WOOD JUICE?

A: Yes. The wood will turn and carve easier because WOOD JUICE also acts as a lubricant for your tools until it dries. Note that before sanding, the wood should be completely dry. If the sand paper clogs up or is gummy, it is an indication that the wood is not yet fully dry.

Q: Will WOOD JUICE stabilize rotted or spalt wood?

A: Yes. WOOD JUICE will stabilize rotted or spalt wood. However, it will not harden soft areas. Only apply 1 application to these porous areas as too much WOOD JUICE will just sit in the wood and not dry. See information on POLYCRYL for hardening soft areas of spalted or punky wood.

Q: Does WOOD JUICE change the color of the wood?

A: In some cases, it may alter the color slightly in light colored wood such as Birch. WOOD JUICE will generally enhance the wood grain while leaving it looking natural.

Q: Can wood treated with WOOD JUICE be glued?

A: Yes, wood treated with WOOD JUICE can be glued. Tests have been successful using carpenter's glue, cyanoacrylates, and epoxies. The shear strength, however, has not yet been determined. Again, if needed, it is **important** to clean the wood surfaces with solvent or mineral spirits and be sure that the solvent has completely evaporated (dried) prior to gluing.

Q: Can WOOD JUICE be used on bowls and eating utensils?

A: Although WOOD JUICE is considered non-toxic, it is not approved and registered as food grade. Therefore, we cannot recommend or endorse that it be used on items intended for use with food or beverage.

Q: If WOOD JUICE freezes, will it loose its properties?

A: No. WOOD JUICE has been run through 16 freeze-thaw cycles, some solids may settle out after being frozen 2-3 times, but will readily disperse when slowly brought back to room temperature and shaken well. Note: do not heat frozen WOOD JUICE.

Q: Will WOOD JUICE keep the bark on?

A: It will help. Since WOOD JUICE will reduce the shrinkage of the wood, it will help to keep the wood from pulling away from the bark. However, there is no guarantee that the bark will stay on long term. For best results to keep bark on, the tree should be cut during the dormant period (winter) when the sap stops running and the wood has hardened off.

Q: Can wood treated with WOOD JUICE be wood burned?

A: Yes. WOOD JUICE treated wood can be wood burned, however, be sure that the treated wood is completely dry prior to wood burning.

Q: Does the odor of WOOD JUICE remain in the wood once the wood has dried?

A: 95-100% of the odor will dissipate. The time it takes depends upon the size and type of wood and how long for the wood to completely dry.

Q: What can I use to clean brushes that were used to apply WOOD JUICE or to clean up a spill?

A: WOOD JUICE can be cleaned off/up with soapy water, or a mineral solvent.

ADDITIONAL WOOD TREATMENT PRODUCTS

END GRAIN SEALER

END GRAIN SEALER is a non-toxic wax emulsion that is applied to the end grain of green wood or the face grain of turning blanks or carvings. Since up to 85% of the drying is through the end grain of the wood, it is beneficial for slowing down and evening out the drying of green wood.

This product can be used on logs, timbers, lumber, turning blanks carvings and other green wood items.

END GRAIN SEALER can also be applied to wood that has been treated with PENTACRYL, WOOD JUICE or LOG & BEAM TREATMENT. This will help slow the drying.

EXTERIOR WOOD SEALER

This is a sealer made for use on exterior wood. When applied after using our wood stabilizer products, it will prevent the product from leaching out over time due to weather, while still allowing the wood to breathe and continue to dry. This product is especially beneficial during the drying of the larger wood pieces.

LOG & BEAM TREATMENT™

This product was specifically designed for use on larger logs, beams and timbers to reduce or eliminate cracking, splitting, checking and/or warping caused by shrinkage as the wood dries. It is great for use on log homes, post & beam or timber frame homes and structures. Popular for treating wood accent pieces, log archways, fireplace mantels, stairs, etc.

LOG & BEAM TREATMENT will penetrate deep and will not darken the wood. It contains a natural UV protectant. Formulated for use on interior wood, but can also be used on exterior logs or timbers, as long as the wood is sealed to prevent it from leaching out in the weather. Available in 1 gallon size or larger.

PENTACRYL™

Our most popular product! Used to stabilize green, fresh cut wood. It displaces the moisture in wood and coats the wood cell walls. This prevents the wood from shrinking while it dries, which significantly reduces the cracking and checking.

POLYCRYL™

This is a concentrated, high molecular weight acrylic polymer that will fill and strengthen soft or spalted wood. It will dry clear and will not yellow. POLYCRYL is water-soluble and penetrates best when the wood is wet. It will help make carving and turning easier by fortifying the soft areas of wood.

Penetration varies depending on the density of the wood. Note that it will not penetrate the hard areas of wood.

Since POLYCRYL is water-based, a finish will need to be applied to prevent the product from leaching out.

Our wood products are available in the following quantities:
Quart • Gallon • 5-Gallon Container
30-Gallon Drum • 55-Gallon Drum

Developed and Manufactured in the U.S.A. by

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