

# Petri-wood wood sealer & stabilizer



**Seal it with Petri-wood...Stabilize it for good**

**Petri-wood** is ideal for all types of wood including:

Pressure treated, pine, fir, red cedar, yellow cedar, white cedar, redwood, cypress, oak, teak, mahogany, spruce,  
**Turns junk woods into working woods.**

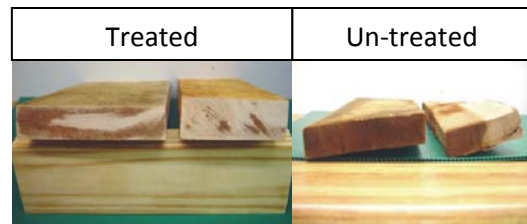


#### **Applications on wood:**

Pallets  
Wood decks  
Wood fences  
Wood railings  
Wood siding  
Log homes  
Cedar shakes  
Playground equipment  
Outdoor wood furniture  
Hot tub decks  
Gazebos

Contractors, Builders & Architects

- Roof trusses
- Floor trusses
- Roof decks and sheathing
- Subflooring
- Beams
- Studs
- Paneling
- Joists
- Architectural millwork and trim
- Exterior load-bearing wall



## THE SCIENCE BEHIND PETRI-WOOD SOLUTIONS

All woods and bamboo contain two different forms of moisture. They are referred to as "FREE WATER and BOUND WATER. *Free water* harbors in the fiber structure of the wood. *Bound water* is found in the Hydroxyl molecule that is the sole make up of cellular compounds. A hydroxyl molecule has two tails. A hydrogen tail and an oxygen tail. The uptake of these two compounds creates H<sub>2</sub>O or water. Expansion and contraction of wood is created when the hydroxyl molecules take on more or less airborne or liquid moisture. Where there is no moisture present in wood there are no issues: no rotting, carpenter ants, termites, mold, mildew, bending or warping of wood, the wood is considered dimensionally stable.

PETRI-WOOD is a solvent treatment. Solvents will instantly displace free water from the fiber structure of wood. Certain silanes used in the PETRI-WOOD formulation are water scavengers. Since they are of extremely low molecular weight they are capable of penetrating the cell wall structure of the molecule and attacking the water inside the molecule. The water is then replaced with a Si-Jel Matrix, a pliable silicone compound made up of silicone and cedar oil. This phenomenon is created by a catalytic conversion that uses the bound water to trigger a hydrophobic reaction inside the hydroxyl molecule. The un-utilized and excess water is then released and exits the wood in the form of ethanol gas. The Cedar Oil component of the formulation is a synergism which allows the solution to bond with the water and subsequently water proofs the wood from the inside out. It further performs as a termiticide and a fungicide that provides additional protection to the wood.

Summary: When the hydroxyl group molecule is stabilized, the wood is moisture free. The hydrogen and oxygen tails of the molecule are sealed from liquid or air borne moisture and cannot expand or contract as they would in non-stabilized wood. Stabilized wood cannot move and therefore no cracking, splitting, cupping or warping will take place. Fastener rejection is eliminated. Subsequently, the absence of moisture becomes the absence of issues as the early stages of wood Petrification are triggered. Petrified wood is moisture free wood laced with silicone deposits. The cedar oil component of the formulation is encapsulated in the wood and provides perpetual protection from insect and fungal organism attack.

Encyclopedia Definition for Petrified Wood - is the [process](#) by which [organic material](#) is converted into stone by impregnation with SILICA. A major ingredient in the cell walls of wood is [cellulose](#). The silica binds to the cellulose; when it crystallizes, it preserves the microscopic structure of wood even after the cellulose is gone.

THIS IS CEDARSHIELD A ONE TIME, LIFETIME TREATMENT SOLUTION  
REVOLUTIONIZING THE WOOD BULKING INDUSTRY FOREVER.

PETRI-WOOD is next generation technology at its best. It is a *patented formulation that when applied correctly provides a ONETIME-LIFETIME Treatment to wood and bamboo of any species.*

## Equipment & Tools Required

Always remember to cover any existing plants or grass in the immediate area. You are spraying a Penetrant that will render the plant moisture free. When you have completed the job it is always a good idea to soak the surrounding area down with a water hose, just in case.

Ladders, Brooms  
Drop Cloths, Tape  
Respirator or Mask, Goggles & Rubber Gloves  
Plastic Bucket (clean up)  
Paint brush roller & Brushes incase of equipment failure  
Rags & Sand Paper  
Hammer, Screws & Nails, Electric Drill  
Extra 2x4's & 2x6's just in case  
Camera (before & after photo's)

### **Pressure Washers:**

For best results, always clean the surface first. Applying the PETRI-WOOD while surface is **still wet** will give you the best results. It's very important if you have not used a pressure washer, that you practice, practice & practice to make sure you do not scare the wood. You should always use the lowest pressure and largest tip size that will clean the wood sufficiently, quickly, and with minimal chance of scarring damage.

### **Airless Spray gun & other apparatuses for treating the surfaces:**

For best results use an airless sprayer that offers a 100 to 500 PSI and contains an engine of 1/4 to 1/2 horsepower. You can also use a pump up sprayer, backpack sprayer or paint brush.

**Dipping method:** Leave soaking for 1 hour, let dry for 72 hours

### **Hot & Cold Bath:**

The thermal process or hot-cold bath involves placing wood in a tank of hot preservative oil followed by immersion in cold preservatives. The hot bath heats and expands the air within the wood, forcing some of the air out. The wood is then immersed in the cold bath and the heated air contracts pulling preservative in with it.

### **Application Rates for wood projects:**

Note: You only need to do one side of the wood, as it will be absorbed throughout the entire wood structure. Always work in a maximum area of 100 sq. ft. using a wet on wet spraying method.

**NOTE: DO NOT LET PRODUCT DRY PRIOR TO SECOND AND THIRD COATS**

**Wood thickness 2X—(2x4--2x6) requires a minimum of 3 applications for total penetration. One gallon will treat 100 sq ft**

**Wood thickness 1X—(1x4--1x6) requires a minimum of 2 applications for**

**total penetration. One gallon will treat 150 sq ft**

Example: If you're doing a 400 sq. ft. Deck you would start at one end and do 100 sq. ft. increments, when you are done, you will then go back to where you started, and do it again, and then one more time completing all 3 applications before moving on to the next 100 sq. ft. You would also use the same application process on fencing material except you would **only apply 2 applications.**

**Application Rates for Concrete, brick block projects:**

Use same directions as used in the wood surfaces for 2X a minimum of 3 applications for total penetration.

**IMPORTANT NOTE: ALWAYS REMEMBER TO GET THE SURFACE OF ANY CONCRETE APPLICATIONS WET PRIOR TO SPRAYING ON THE CEDARSHIELD PRODUCT.**

## APPLICATION TIME

Let dry for a minimum of 72 hours for best results. Application is best accomplished in the heat of the day. Wood expands and contracts with heat until it is treated with PETRI-WOOD. Application should be done in warmer temperatures which accelerates the penetration levels by expansion of the wood and will subsequently shorten the application time.

**Horizontal Treatments:**

Apply Petri-Wood to a defined area of approximately 100 square foot or less. Using the wand or spray head, discharge the liquid in a spray or mist, holding the nozzle very close to the wood. On horizontal surfaces keep applying the fluid until the surface appears glossy wet. Return to the starting point and reapply again when the solution has soaked into the wood. Repeat at least three times or until the last application appears to be resisting rapid penetration. **Petri-Wood** will then wick itself into the wood and the fluid will migrate vertically and horizontally throughout the fiber structure. Move on to the next designated area and repeat the above process. Make sure that you have enough liquid to finish the defined area as partial treatment will not produce a **ONETIME LIFETIME** result. Treatment from both sides is not necessary however adequate amounts of Petri-Wood must be applied to insure total penetration. For added Ultra Violet surface protection you can re-treat the surface with **Petri-Wood** at any later date. The absorption at that time will be minimal and the solution will be contained to the top surface area of the wood. Approx. 20 days after 1<sup>st</sup> application

**Vertical Treatments:**

When treating Vertical surfaces, start at the top and treat in the direction of the bottom allowing any run off to be utilized by the untreated wood. Patience must be practiced when applying vertical surfaces as keeping the wood surface wet with solution is more difficult than on horizontal areas. Sometimes the use of a brush is more appropriate than the spray nozzle. Application with an airless gun is desirable for large areas such as Log Cabins and Fences. The Airless gun will inject the fluid instantly into the wood triggering a rapid wicking of solution and eliminating any tedious application efforts. Be sure you request the **SMALLEST NOZZLE** available for the gun.

### **APPLICATION OF STAIN OR PAINTS:**

Oil based stains or paints are recommended for application to **Petri-Wood** wood. These types of coatings are more adaptable to a solvent treatment than the water based formulas. However, either can be used effectively and without any issues. A 24 hour waiting time is recommended for Oil Based Stains or Paints. A 72 hour waiting time is required for Water Based Stains. Surface wear areas such as walkways and heavy traffic will experience higher levels of wear resistance when coated with oil based products. Paints and Stains will experience a extended adhesion when applied over wood treated with **Petri-Wood** as the wood will no longer "move", the phenomenon that is responsible for rejection of all deck, dock, fence coatings and paints.

### **CLEAN UP OF EQUIPMENT:**

Clean up is easy with **Petri-Wood**. There is none! Simply put the cover back on the unused product and store in an area free from any open flame. The product has a perpetual shelf life and will always be ready for you to use on the next project, perhaps the bottom of the doors, door jams or sill plates that insist on rotting. Perhaps the sopher or facial boards of the buildings.