

Drying *continued*



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For extra large pieces, we also recommend applying *End Grain Sealer* prior to applying the cardboard (photos 16 and 17).



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Be sure not to apply it to the bark edge especially if the bark is to be left on. Expect a longer drying time with *End Grain Sealer*. Once the wood has dried, the sealer can be scraped off and then lightly sanded. For medium to small cookies, you can use either cardboard or *End Grain Sealer* (photo 18).



Untreated

Treated with Pentacryl

These 13" diameter by 2" thick red oak cookies were both dried in cardboard for 6 months. The one on the right was treated with *Pentacryl* while the one on the left was untreated. In addition to preventing cracking, *Pentacryl* also keeps the wood looking clean and bright.

Drying time will vary with each piece and will depend upon how much moisture is in the wood to start with, the size and type of wood, plus the temp and humidity where the wood is being dried. Do not rush the drying process or all your efforts will be wasted on cracked wood.

Finishing

Once completely dry, your wood will have a natural look and feel to it. The surface can then be sanded, stained, wood burned, glued, painted, and/or finished. We do not recommend using water-based products as this adds moisture back into the wood and can leave the surface tacky.



Untreated

Often times it is desirable to keep the bark edge intact. *Pentacryl* will help by preventing the wood from shrinking and pulling away from the bark. However, the best method is to cut the tree in the winter during the dormant period when the sap stops running, and the wood has hardened off.

Wood cookies that have come from a dead standing tree, where the moisture is much lower to almost dry, we recommend using *Wood Juice*. This stabilizer is formulated to treat drier wood to prevent future cracking.

Years of research and testing have gone into creating each of our products. They are all proudly developed and manufactured in the USA.

Pentacryl is available in 32 oz, (quart), 1 gallon, 5 gallon and 55 gallon drum sizes.



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Stabilizing Green Wood Cookies with Pentacryl®

Cross-sections, rounds, or "wood cookies" are a popular cut of wood to work with. They are also the most challenging to stabilize, as this type of cut has the highest tension in it. The wood will tend to crack from the outside rim in towards the pith (center) to relieve the tension, forming a pie-shaped crack.

Pentacryl works by displacing the high moisture content in green wood. It is highly successful in stabilizing all types of hard and soft wood cookies.



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Treating

There are 2 keys to using Pentacryl successfully:
1- Complete Saturation and 2- Controlled Drying



Pentacryl is a green wood stabilizer and formulated to treat wood with a high-moisture content, above 25-30%. A moisture meter can be used to check the reading. To determine how much Pentacryl you will need, see the *Wood Calculator* on Preservation-Solutions.com.

Wood cookies should be treated with Pentacryl as soon as possible after they are cut. If they can't be treated right away, lightly wet the wood surface with water and wrap in plastic (photos 1 and 2). This will prevent them from starting to dry and crack. To keep mold from growing, do not keep the wood in plastic longer than 2-3 days.



Pentacryl can be applied by soaking or brushing/rolling on. For best penetration, the Pentacryl and wood both need to be at room temperature.



When soaking the cookie, use a plastic, fiberglass or rubber container only, as metal containers will adversely react with Pentacryl and darken the wood. For best absorption, place small wooden or plastic slats under the cookie to prevent it from sitting directly on the bottom of the container - chopsticks work well for this (photos 3a and 3b).

When working with large cookies, using a plastic kids pool is ideal - like for this 5' diameter x 10" thick maple cookie. Line the pool with heavy plastic to prevent leaking and be sure to leave enough to cover the top of the wood (photo 4). A custom soak can also be built using 2x4 lumber lined with heavy plastic (photo 5).

Complete submersion in Pentacryl is ideal, but not necessary as Pentacryl will also "wick up" from the bottom. Since this piece is too large to turn over to soak the other side (photo 4), Pentacryl is being applied from the top as well.



Photos 6 and 7 show Pentacryl being "wicked up" into the wood from the bottom of the soak.



The wood should soak 24 hours per inch of thickness. However, for larger pieces we recommend soaking 36 hours per inch of thickness. Note that the more water that is displaced prior to drying, the better results you will have.

While soaking, cover the wood with plastic to prevent premature drying on the exposed wood and keep Pentacryl from evaporating (Photos 8 and 9).



Often times, you will see a white film or residue on the wood. This is the water that is being pushed out (photo 10).

When using the brushing or rolling method, lay down a sheet of heavy plastic large enough to wrap up over the top of the wood. Apply a heavy coat of Pentacryl and wrap the plastic over the top to prevent it from drying while it is soaking in. Repeat this process until the wood is saturated.



Drying

Even though Pentacryl speeds up the drying process by approximately 30% since it displaces moisture, the wood still needs to dry slowly and naturally. Protect the cookie from direct air movement, heat source or sunlight. Ideal drying conditions are 55-65°F with relative humidity at 25-50%.

Since wood cookies are 100% end grain on both sides and up to 80% of drying will occur through the end grain, the surface drying of these pieces needs to be slowed down. The following are a few methods that we recommend. Stand wood on its edge so both sides can dry evenly.



Wrap cookies in brown paper or trace and cut out cardboard circles and tape snugly to both sides (photos 13a and 13b). Or, bury in dry wood shavings or sawdust (photo 14).

When drying wood in high humid areas, lightly spray with Lysol (or other fungicide) prior to applying cardboard (photo 15). This will prevent mold from growing while drying. If mold does form, the spores are generally only on the surface and can be treated again with Lysol and/or lightly sanded off.

