Distributors of
Quality Writing Instruments
Related Accessories-Premium Gifts-Dymondwood

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Dymondwood® Do's and Don'ts,
Pen-Crafter Tips For Success:

Pen crafting is an enjoyable, rewarding and fun experience. Pen crafting is, however, learned. The process requires practice, patience, and above all a willingness to learn. Just to be fair, Dymondwood® is not for beginners. Learn on less expensive and easier to work with stock such as Black Walnut first. Then make the jump to Harder and more temperamental stock.

These tips are our own opinion based on experience and just a few things that work well for us and some other Dymondwood® fans. The crafting of quality pens is straightforward and relatively simple. We have also included a few shop safety rules. We ruined a lot of Dymondwood® and had to learn most of these lessons the hard way. When we asked our suppliers what we could be doing wrong, the response we received was "I don't know, but I have plenty more if you need it…Ha…Ha…Ha".

We are offering these tips to help make your experience with this wonderful product as successful and rewarding as it can be. These same tips work well with other materials as well, try them and see how it goes. You will find that working with Dymondwood® is very much like working with ebony. It sounds, cuts and feels the same except that Dymondwood® will not split and crack while polishing due to quick changes in temperature from friction.

If you have any other helpful hints, please email us at **woodnwhimsies@woodnwhimsies.com** and let us in on what works for you. We will be happy to add any helpful information to the list of Dymondwood® do's and don'ts.

Do: Wear safety glasses with side shields while drilling and turning. That's just good common shop sense.

Do: Wear a dust mask or respirator while drilling and turning. The dust particles can irritate your sinus passages and make you feel like you have a mild cold.

Do: Wear a long sleeve smock or similar garment while drilling and turning. The fibers can get into your skin and feel like you have been in the attic insulation. The first three do's apply when working with any kind of wood or around power tools in general.

Do: Use a sharp drill bit, preferably a brad point bit. A regular jobber style drill bit is acceptable as long as it is good and sharp. Be aware that a jobber bit will probably walk a lot more than the brad point. Walking refers to the bending of the bit caused by the cross grain pattern. The hole will be closer to the edge of the blank at the bottom than at the top of the hole where you started in the center.

Do: Keep your drill bit cool. This wood can be burned from the inside out if your drill bit gets too hot. A fast turning dulled drill bit will ruin the bright colors of your wood. We have even used water to keep the work cool. (DO NOT USE WATER IN COLORWOOD™ , COLORGRAIN™ OR STRATABOND™, THESE WOODS DO NOT HAVE ANY RESIN IN THEM AND WILL READILY SOAK UP THE WATER AND SWELL THE BLANK, THEY ARE NOT THE SAME AS DYMONDWOOD™) If you are using a good grade of polyurethane glue (i.e. Gorilla Glue) then a little water won't hurt anyway, water acts as a catalyst for Gorilla Glue to set up faster and more effective.

If you have used this glue and have a tough time washing it off your hands this is why, stop using soap and water immediately. Instead keep a tube of orange hand cleaner to wash your hands before you use soap and water. The orange cleaner is very effective at removing gorilla glue from your hands as long as the glue is still in a tacky stage.

Do: Cut your piece ¼ to 3/8ths of an inch longer than the finished length you need. Read on and the reason will become self-evident.

Do: Cut your wood on a band saw with a sharp 8-10 tooth per inch blade. Other blades can be used but the manufacturer suggests 8-10 teeth per inch. I cut this wood up with a ¾"wide 10 tpi blade. The blade goes through like a knife through butter. This blade is available from grizzly.com. The 93-1/2" blades which fit the Craftsman and Powermatic band saws sell for around $15.00 each.

Do: Clear the chips while drilling **VERY OFTEN**, especially when nearing the bottom of the hole.

Do: Vacuum away chips and dust from the blank as it is being drilled.

Do: Wrap the blanks in tape when cutting and drilling so that if the blank does break, the pieces will be contained and not fly across the room. This will facilitate an easier time of fitting and gluing the pieces back together with CA glue. Tightly wrapped electrical tape works best for us.

Do: Use Micro Mesh® sanding sheets and sand your finished work to the 12,000 grit. After sanding, buff the wood with a soft polishing disk on a bench grinder that has been charged with white diamond dust. After this apply a thin coat of sanding sealer followed by a good friction polish. This will produce an amazing and unbelievable glass like finish that will last a lifetime. Micro Mesh® is available from our site and includes one 3" X 6" sheet each of 1500, 1800, 2400, 3200, 3600, 4000, 6000, 8000, and 12,000. One set of Micro Mesh™ will last you for 25-40 pens if you use it properly. We have tried this product in 3" X 4" pieces to save a little money. We found that we get better control of the mesh than with the 50% smaller pieces. Also the larger pieces will outlast the smaller ones by 33 to 50%.

Don't: wear gloves while turning and drilling, if the turning object gets hold of a glove or loose garment, your hand can be pulled into the rotating machinery. This is especially true for drill presses and full size lathes. Fingers have been removed and hands/arms broken by this means. It is extremely quick and most surely painful.

Don't: Cut the blanks with a table, miter, or radial arm saw. The blades on these saws generally have a tooth pattern that is too course for Dymondwood® and will cause laminate layers to break off at the beginning or end of the cut.

Don't: Drill completely through your Dymondwood® blank. The bit will grab the wood as it passes through the backside and more often than not will break the blank into many pieces. Leaving your blank longer than needed and only drilling as deep as you need to accommodate the tube will save you a lot of grief. Remember the do at the top? The excess can be cut off on your band saw after the hole is drilled.

Don't: Allow the drill bit to get too hot. Drill a short ways into your blank and then stop the drill press to check the temperature of your drill bit with your fingers. If you cannot comfortably hold onto the bit then it is too hot and can burn your wood. This will not normally happen unless you are drilling several consecutive blanks without any cool down time.

Don't: Try to drill your blank in one pass. The debris will most assuredly cause your work piece to explode in the drill vise from the pressure, temperature and expanding sawdust clogging the bit.

Don't: Force the drill bit into the work piece. If it does not go into the blank on its own with minimal pressure you need to get a sharper bit. Forcing the bit is asking for disaster.

Don't: Throw your Dymondwood® blank away if you break it in the process of drilling or cutting. If the break is on the lamination joint, which is usually the case, just apply a little CA glue, and clamp the piece for a few seconds and you can continue. We have had pieces come off on us in the lathe and have found the broken pieces, glued them back together and the finished product shows no signs of breakage.

Don't: It has been suggested that Dymondwood® not be drilled in ambient temperatures below 40°F. The sudden increase in temperature due to the introduction of a hot drill bit will cause the blank to crack. You should never work with any kind of wood that has been brought in from outside or from a room where the temperature and humidity differ from your shop. Always give the wood a period of time to acclimate before using it. Usually 12 to 24 hours for pen blanks.

The following are Don'ts that apply to pen crafting in general

Don't: Leave glue inside the brass tubes. All glue residues must be <u>completely</u> removed from <u>inside</u> the brass tubes. Glue residue can cause twist mechanisms to jam, be stiff or interfere with the fit of the pens components. On the kits where there is exposed brass tubing, to push on the center ring, all glue and wood must be removed from the exposed brass tube.

Don't: Shorten the brass tube (too much). Frequently when squaring off the ends of the wood, the brass and wood are removed, therefore shortening the tube. This often happens when a barrel trimmer is used. THIS CAN CAUSE THE PEN NOT TO WORK or cause the ink refill to extend out too far. Leave about 1/16" of wood extending past the end of the brass tube and trim this extra wood up to the brass tube end. We have even left a 64th" just to be sure and the kits work fine.

Don't: Compress or expand the brass tubes. When pressing parts together, great care must be taken to make sure the matching parts are aligned, straight and not cocked. If the parts are cocked, then the matching parts can be compressed or expanded, this can result in major failure of the kit; the twist mechanism can jam and the other parts will not fit together properly.

We highly recommend that you purchase an Arbor Press to press parts together. An Arbor Press can be purchased for around $30.00 from Harbor Freight. We also discourage the use of wood clamps, vises, or horizontal pen assembly presses. No matter what method you use, make sure your parts are straight and not cocked. Press slowly and carefully. I find it best to press it in just a little and then rotate the part 90 degrees and press in a little more and so on until the part is bottomed out.

Don't: Over tighten the nut on your pen mandrel. There is a tendency to tighten the nut hard when you start turning the pen blank to keep the blank from spinning on the mandrel. This is okay but once the barrel is round, then the nut should be loosened and barely tightened up. If this is not done, the blank can crack as it becomes thinner. This happens when the pen is almost completely turned down,

usually on the finishing pass. Even if the blank does not crack you will often find that the blank is not round but usually oval or egg shaped. This is caused by the mandrel being bent by the force exerted by the over-tightened nut.