Hello to the group,

Many of you will recall my recent article in Woodturning magazine (Oct., Nov. 00) on wax finishes. Several turners have contacted me regarding my wax finish application methods. I have attached my high-speed and Carnauba wax application protocols to this post. For those of you who are well aware of these methods, please accept my apologies for "preaching to the choir."

High-Speed, Heat Assisted Wax Application for Liquid, Paste and Semi-solids:

Typically, waxes are applied onto the surface of turnings with a soft cloth, rubber or natural bristle brush. After the solvent has sufficiently evaporated, the wax is buffed to develop the lustre. Depending on the solvent used, the time required before you can begin buffing the surface could vary from a few minutes, to twenty-four hours or more.

In my production studio I use a high-speed heat assisted method of applying the wax, which helps to speed the evaporation of the solvent and the subsequent buffing of the surface. Safety note: When working with waxes that contain toxic solvents, wear a face shield, suitable gloves for the particular solvent and a respirator outfitted with an organic vapour cartridge.

1. Finish sand the item and remove any dust that may be in the pores of the timber with a blast of compressed air, or a tack rag. Apply a cellulose sanding sealer (if desired) and friction dry with a piece of safety cloth. When dry, cut the surface back with a burnishing wax or wire wool.

2. Set your lathe revs to 1200 (or as close to it as safety permits) and apply the wax to the spinning timber with a small piece of safety cloth, or a brush. Apply moderate pressure to the spinning work piece, which will create friction and melt the wax. Work the wax impregnated safety cloth back and forth across the surface insuring that the surface is completely covered with the heated wax.

The addition of the heat to the application process helps to saturate the surface fibers of unsealed timber and speeds the evaporation of the solvent carrier on sealed surfaces.

3. After the surface has been well covered, change your lathe revs to 2000 (or as close as safety permits) and continue to traverse back and forth across the surface of the timber with moderate pressure using the safety cloth. Many wax solvents will evaporate quickly at this speed and the drying times will be reduced by up to seventy five percent.

4. Let the piece spin in the air for a few moments (without applying the safety cloth) to evaporate any remaining solvent. Continue your revs at 2000 and after the wax has dulled, you can begin to buff the surface with a clean piece of safety cloth, a soft bristle brush or a lamb's wool pad.

This method is particularly suited to spindle turning, but will also work well with smaller bowls and hollow forms. Obviously, the size and shape of the item, number of structural defects present and the quality of the lathe and its fixing will determine the speed at which you can apply and buff the wax. This method is designed to save TIME, something we production turners are concerned about.

Secrets to Success with Pure, Solid Carnauba Wax:

Pure, solid Carnauba wax imparts a brilliant gloss to woodturnings and in my experience, it has proven to be a very durable finish. To achieve the highest possible gloss level, follow these simple rules.

1. Wash your hands! Any residual bits of sawdust or sanding grit on your fingers will compromise the quality of the gloss, if you touch the piece whilst it is rotating on the lathe.

2. Cut a small wedge from a solid bar of Carnauba wax. One end of the wedge should taper to a fine point. The other end should be 5 - 6mm wide.

Use the fine point end to apply the wax to the turning, whilst it is rotating as fast as you can safely turn the piece.

Friction will melt a thin layer of wax onto the surface of the turning.

3. As you are moving the wax wedge across the turning, you can see a dull band of wax being applied to the surface. Insure that you move at a constant speed across the surface and apply a thin, even coating. Maintain the sharp point on the wedge tip by periodically scraping the area with a knife. These wax scrapings can be kept and melted to form another solid bar.

4. To buff the piece, start at one end and apply sufficient pressure with a CLEAN piece of safety cloth to melt the thin layer of surface wax. Do not apply too much pressure whilst buffing, or you will remove the wax. Applying too little pressure will cause streaks. A final light buff across the surface will deliver a brilliant gloss finish.

5. Larger turnings cannot be polished using this method due to speed and safety considerations. However, you can use "The Beall Buffing System" to safely apply pure Carnauba to the surface of larger turnings using the flannel buffing wheel. Another option, is to apply a high grade Carnauba paste wax to the surface and then buff the with a soft flannel buffing wheel at 1750 - 2000 revs.

Although I have several solid bars of Carnauba wax from various sources, the finest I have ever had the pleasure to use comes from Kahl, a German wax refinery (www.kahlwax.de). Their Carnauba wax is only available in flake or powder form, but it delivers the absolute highest gloss level I have ever achieved with solid Carnauba!

To use the wax, I gently melt it in the microwave and cast it into bars. When the bars are cooled, I use a thin trim saw to cut my wedges. All of the wax shavings are saved and melted into additional bars. In addition, at some point, the wedges will become too small to easily handle. These get tossed into the recycle bag and are also melted to form additional bars. If you have any questions, please do not hesitate to contact me.

Good luck and best wishes in all of your turning endeavours!

Burnishing wax, is simply wax that has a cutting compound incorporated in it, like Tripoli, or other compounds. The wax is used to smooth and perfect the surface prior to application of any finish. If you sand to 600 grit metric and use a burnishing wax, you will end up with a 1,000 to 1,200 grit metric surface.

Production turners (like myself), love these products because they save time and provide a superior surface, that enhances the chatoyance of the timber. Two products I use and recommend are Arbortech Burnishing Wax and U-Beaut's EEE-Ultra Shine, both Aussie products (available in US).

Safety cloth is a special paper cloth that is made to tear away, before it gets caught. Ordinary paper towels will work just fine but, do NOT get the cheap, cheesy ones. Get a Brawny or equivalent paper towel. You will get a much better gloss when using a high quality paper towel, than an el-cheapo. If you have any questions, please do not hesitate to contact me.

Letting the chips fly...
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