

Kurt's clinic

Kurt Hertzog supplies answers to some readers' questions

What type of blade?

Question: When people cut and trim their pen blanks with a tablesaw, do they use a finishing blade or all-purpose blade?



Bandsawn pen blanks ready for tube insertion

Answer: The best answer is that it really doesn't matter. Since the cutting and trimming on pen blank material is to shape the blank square and to remove excess stock, the surface finish isn't terribly important. You will be drilling and gluing in a tube, then facing the blank flush to the tube on both ends. Whether you use a pen mill or sander for that process, you'll wind up with that surface finish on the end and the rest turned round for the pen body. Personally, I have little use for my tablesaw for woodturning stock prep, favouring my bandsaw. On the



Pen blanks with a tube glued in and faced ready for turning

bandsaw, any blade in decent sharpness works great. You are going to turn away any other cut edges so they really don't matter. If you must use your tablesaw, I recommend a sharp, narrow kerf, high tooth count blade. On my tablesaw, a general purpose 48-tooth Forrest Woodworker 2 blade is fine for nearly all of my cuts, including what you term finishing cuts. You can pick the manufacturer of your choice but a quality, sharp, carbide tooth blade of 48 teeth or more is probably a great choice.

PHOTOGRAPHS BY KURT HERTZOG

Stabilising wood

Question: I am getting into stabilising wood and wonder how to know which species need to be stabilised. Is there a list of species to use? Any to avoid? What about recommendations for stabilising resins?



Dense woods require no stabilisation. Porous or punky woods do. If you can't tell visually, a thumbnail pressed into the timber will tell you

Answer: Rather than naming species, I recommend that you focus on woods that need stabilisation. Woods of any species that is punky, soft, porous, or otherwise crumbly are candidates for stabilisation. The process is to fill all the voids with liquid plastic by evacuating the air, replacing the voids with plastic, and then curing the plastic. With the voids filled with cured plastic, the material is denser, turnable, and far stronger. Another advantage of stabilisation is the colouring that can be done concurrently. Various dyes and colourants can be introduced to alter the original material. You can also use these stabilising resins to cast other materials, from flower pods to rice to coffee beans. When you select your stabilising candidates, you'll pick them based on their porosity and need to be made harder and denser. There are

some species that are naturally open grained that stabilise well. Other species that are already dense don't need stabilisation and don't fare well if you try. Often the 'thumb test' will answer your question. If your thumbnail will easily press into the wood, it will usually benefit from stabilisation. There are only a few stabilising resins that are offered to the home user. I have experience with the two most popular retail offerings. I've used both Cactus Juice and Stickfast stabilising resins with success. The prices are similar from the various sales sources and in use they work the same. I've recently purchased a third brand to try but I have no results to report so I'll leave them out here. There are potentially other available brands but these two offerings have nearly all of the market in the US.

Carbide-tip tools for pen turners

Question: I bought a set of carbide tools to use on acrylic blanks. The sales guy said carbide works better on acrylic than HSS. I was tired of having to resharpen my roughing gouge twice for every pen. I tried using the square cutter to turn the blank round and it was a mess. It was super-rough and full of chips. I went back to my HSS tools, but I'd like to know if I was just doing something wrong?



A properly sharpened and presented HS tool will cut any acrylic I've encountered. Carbides work as well with high speed and light touch

Answer: I'm not certain why you had those problems but I can suggest a couple of things based on your note. First, you shouldn't need to be sharpening your spindle roughing gouge twice for every pen blank turning, whether wood or plastic. My guess is that your sharpening technique isn't effective. A properly sharpened HSS edge should last much longer than that. Next, acrylic is such a generic term that I'm not exactly sure what you are turning. Depending on the material, cast or extruded, and its actual composition, acrylic plastics are all over the map for turning characteristics. Brittle, chippy, stringy, soft, hard, or whatever you want to call the cutting results vary based on the actual acrylic material you are turning. Remember, each piece of acrylic you buy to turn can be totally different from another acrylic blank unless they are from the same original

material batch. That is, you cut them from the same parent block rather than pluck them from a bag of plastic blanks or in bubble packs at the merchant. On to the carbide cutter tools. They should work for turning plastic if the speeds and feeds are correct. Banging the corners off with any tool, HSS or carbide, doesn't need to be brutal. High rotational speed and light touch are good words to live by when turning small spindle stock such as pen blanks. I have experienced soft and stringy to hard and chippy in blanks called acrylic. For solutions, you can try improved sharpening techniques of the HSS tools, high-speed and light-touch turning with either family of tools, and potential change in the actual style or type of cutter. Any or all of these may be needed to solve the problem. Also, you certainly should try different plastic blanks as your raw material.

Send in your questions to Kurt's email: kurt@kurthertzog.com