

## Epoxy

Andrew Davis

Bevel Cut January, 2021

Lately I've noticed epoxy is gaining lots of attention. Magazines seem to be running countless stories about the different uses, and river tables seem to be the latest fad together with making fancy "enhancements" or substituting for wood in random inlay projects.

I've also noticed that epoxies are available in a Baskin-Robbins-like array of flavors from woodworking stores (like Rockwell), hardware retailers (like ACE or Lowes), arts and craft supply companies (like Michaels), and a variety of online distributors. Epoxy variations and branding monikers include i) pour epoxy, ii) table-top epoxy, iii) penetrating epoxy, iv) quick-setting epoxy, v) casting epoxy, vi) liquid epoxy, vii) 5-minute epoxy, viii) 15-minute epoxy, and ix) bar-top epoxy. And I am not suggesting that my list is complete.

Vendors, many of whom sell multiple varieties themselves, include System Three, MAS, West, Gorilla Glue, and J.E Mosers. Do not assume this list is complete either.

In the past year or two I've dabbled with epoxy in some woodworking projects. Mostly, I've used epoxy to fill cracks and voids in live edge slabs. Here are seven things I've learned along the way.

- While most epoxies are clear, you can add some color and/or interest with dyes and pigments. But there is a plethora of powders, liquids, dyes, and tints and they don't all work as intended in epoxy. For example, I have a green Transtint dye that is green when used in water but red when used in epoxy. My cherry brown Transtint dye is also red when used in epoxy, but not the same red as the green! And while dyes are available in multiple colors, they are too expensive (~\$15 each) for my budget to purchase a selection just for color sampling. However, I did discover that for \$20 or less you can buy pre-packaged variety packs of 10 or 20 colored powders from Black Diamond (on amazon) that are compatible with epoxy. The individual 5-gram packages are small – perfect for filling cracks with color or selecting a final pigment for a big project, but probably not sufficient if you are trying to fill a river table.
- You must tape the top and bottom of your workpiece and have it level while the epoxy hardens. While the epoxy is thick, it is still a liquid. I am amazed how the stuff can just disappear below the surface into wood. It is always a surprise to come back an hour after a pour and see the stuff has absolutely vanished into the ether. I always put waxed paper underneath the workpiece to avoid having a mess to clean up if the epoxy found a way out that I had missed or if my taping job was insufficient. An epoxy mess on your shop floor can be a real chore to clean up. Don't ask me how I know this.
- Speaking of thick viscous liquids, I have found it useful to warm the resin and hardener in hot water to make measuring, pouring, and mixing easier. This is practically required for me since my shop is in my basement (unheated, but with a pretty mild temperature). (I often warm up Titebond as well.)
- It is important to measure the resin and hardener parts accurately and mix well. Failure on either front (measure or mix) can leave you with a sticky pour that will never harden. Don't ask

me how I know this as well. I suggest you stir for at least 2 minutes and then another two minutes after you add in any coloring agent. It is useful to have popsicle sticks, toothpicks, paper cups, disposable measuring cups and spoons within arm's reach.

- Let the stuff cure fully before sanding – be patient.
- If you are filling a crack or doing an inlay, don't make your pour too thin. You run the risk of sanding right through it down to the wood. And again, don't ask me how I know this. For thin cracks, I sometimes use a router to widen the crack. On the other hand, I sometimes do a small pour first to seal off any potential openings. Then I add the final mix knowing it won't leak out.
- And lastly, almost every demo I've seen shows the work piece lying on the bench with its face up. The advantage is you can see what you are doing. The disadvantage is that if the epoxy settles, you may find that the final surface of the epoxy is below the plane of the wood. Depending on what you are doing, you may need to do a second pour – this can be a problem if you need to match colors. If the crack goes all the way through the workpiece, you can tape off the front surface and then do the pour "upside-down." You can be sure that your epoxy inlay will be flat with the surface of the wood.