

Guidelines for Using Epoxy by Marilyn Campbell

West System Epoxy www.westsystem.com - website gives the nearest outlet to your location.

2 Parts:

1. Resin **105**
2. Hardener **205**: This is the fast hardener – a pot life of 9 – 12 min at 72 F (22 C) - about 20 min. working time. There is also a slow one, the **206**, which will provide adequate working time at higher temperatures.

Mixing:

The correct ratio is 5 parts resin to 1 part hardener. West System sells pumps that dispense the correct ratio with one pump each, and are well worth the price. Mix well before adding filler. Work quickly.

Fillers:

The filler is what makes epoxy workable. West System sells a range of fillers suitable for a variety of uses, many of them more geared to boat building than to turning. However, there are two fillers that I use:

- Low density filler 407 - **This filler is NOT for turning!**
 - a. Easily sanded yet strong enough for lightweight structural applications.
 - b. I use this filler wherever I want more strength in the components. Usually worked by hand.
 - c. A deep purple brown color so not suitable for pigmenting. Can be painted.
- Microlight 410 – **This filler is for turning.**
 - a. Very easily turned so use in any project that will be mounted on the lathe.
 - b. Can be colored because of its light pigment.
 - c. Use this filler for decorative inlay and banding on bowls and platters.
 - d. Very easy to sand, texture and pierce.

Use Notes:

- Use a dust mask when mixing in the filler – the dust is very light and easily becomes airborne.
- Add enough filler to achieve the desired consistency. This is described in “food” terms such as syrup (runny), mayonnaise (slight slump) or peanut butter (stiff).
- Choose your consistency according to the use it will be put to. For example, use “peanut butter” to prevent epoxy from running or drooping in a vertical application.
- For most projects, epoxy can be applied with a craft stick. To get into tight spots, a syringe is a better choice.

Colors:

- Powdered pigments will mix in successfully but they tend to harden the epoxy, making the turning process difficult. For turning, oil pigments or alcohol soluble dyes are a better choice.
 - **Earth Pigments** - (**not recommended for turning**). are very natural, earthy colors in tones of brown, green, yellow, red and black. Available from Lee Valley at www.leevalley.com. My favorite for any application requiring sanding only. Deep color.
 - **Mixol** – multi-purpose tinting paste. Turns well. (available at Woodcraft)
 - **Transfast** – Alcohol soluble dye, (*DON'T GET TRANSTINT) Homestead Finishing Products, Cleveland, Ohio. Turns well.
 - **Artist's Oil Paints** – are well saturated and offer a huge range of colors. Good for turning.

Avoiding the Voids:

West System has offered me this solution to the problem of air bubbles. Spread the mixture out on a flat surface and use a spatula to “squidgy” it back and forth until all the bubbles have popped. Then, scoop it up and apply it to your project. If any holes are still present after turning I simply back-fill them before the final sanding, being careful to match the color if the resin has been pigmented. Mask the finished wood adjacent to the hole before back-filling.

Tips When Using Pigmented Epoxy:

- Seal gluing surfaces with plain epoxy first to prevent pigmentation from bleeding into the grain
- If applying a decorative band of colored epoxy, keep the work chucked and complete the application, turning and sanding of the epoxy first, before turning the rest of the bowl. Epoxy tends to be messy!
- Use a sanding sealer to prevent the dust of the pigmented epoxy from staining light wood when sanding.
- Two colors can be swirled together for a marbled effect.
- Retain the mixing cup in case a color match is necessary – it will be unsanded and a truer color to aim for.