

Easy Epoxy Inlays

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Why use inlays?

Add embellishment to bowls without figure or grain.

Enhance embellishment to bowls with little figure or grain.

Add a special pizzas to a special bowl.

Hide and strengthen bowls with cracks or major defects.

What options are available?

Inlace system (polyester resin).

Home made epoxy systems .

West Systems Epoxy (preferred product)

System Three Epoxy

Other brands

Why use epoxy systems?

Lower shrinkage (essentially none) when cured.

Less impacted by environmental conditions.

Strong with great adhesion.

Seemly unaffected by additives and colorants.

Provides food safe finish.

Keys to Success for Epoxy Inlays:

Prepare slot for inlay material with slight undercut and depth appropriate to size of grains (typically at least 50% but not greater than 150% of the size of the largest granules used).

Saw tooth bottom of slot with parting tool to increase area of contact.

Cover surface with bare mixed epoxy to ensure greater adhesion from mixture.

Thoroughly mix resin and hardener according to brand directions in paper or other appropriate container, I find that yogurt cups work good. Avoid wax coated cups and styrofoam.

Thoroughly mix with popsicle stick, tongue depressor, or other small wooden stirrer.

Add color (acrylic paint) to mixture in stages until color consistency is reached.

Add thickening agent (Cab-o-Sil) in stages to mixture starting with approximately one teaspoon until the desired consistency for application and orientation.

Viscosity moves from Syrup to Catsup to Mayonnaise to Peanut Butter to Plumbers Putty quite readily and noticeably.

If necessary empty mixture onto cardboard and continue mixing with HD polyethylene squeegee or old credit card or insurance card. Return to mixing container.

Remember that the more viscous the mixture, the greater the likelihood of having included bubbles or voids in final inlay, usually requires additional step to fill voids.

Add polyester particles (Inlace) of the size and color of your choice and thoroughly mix. Remember you are not limited to just polyester particles, natural minerals or gems, other woods, coins, and the like also make attractive inlays.

Trowel mixture into cavity striving to eliminate bubbles. When completed overspray lightly with alcohol to modify surface tension and result in elimination of bubbles.

Set aside to cure for about three days.

Turn with standard gouges and sand to achieve desired finish.

If you are using another type of particle that is a natural mineral rather than polyester, you might need to use a diamond grinding wheel truing tool, hardened file, side grinder or HD coarse abrasive paper to knock off the tops of the aggregate.

Resources:

West Systems Users Manual and brochure on other uses

The Epoxy Book from Systems Three and Product Catalog

Polyester particle from Woodcraft

Fumed amorphous silica (Cab-O-Sil, Aer-O-Sil, among other names)

Yogurt cups or other epoxy compatible containers

Popsicle Sticks, Tongue depressors, or your own wooden stirrers

Polyethylene squeegees or old credit or insurance cards

Artist acrylic paint, color of your choice