

EMBEDDING OBJECTS

Mix and apply a small amount of MirrorCoat for this. When doing this, remember the coverage formula. An attractive piece of ceramic tile that is 3/16 inches thick is going to take almost a pint of material per square foot to cover. If the surface is three by four feet, it will take a total of 1.5 gallons of mixed MirrorCoat to imbed that piece of tile!

(**TIP:** Some professionals route a shallow cavity into the wood and glue thicker pieces into these cavities. The effect will be somewhat different when using this technique.)

Very thin pieces can be applied so that they appear to float in the cured MirrorCoat. To do this apply a second thicker coat before the final topcoat. Seal porous materials with aerosol lacquer or the equivalent. MirrorCoat is an oily liquid and it may soak into porous materials like paper and make them translucent. (**TIP:** Check your chosen techniques in the planning stages by making a test sample on some scrap material like plywood. Make sure that the desired effect is achieved.)

The next day, if the surface appearance is acceptable, the project is finished. Let the MirrorCoat cure for several more days before putting it to use. If dust has left bumps or small pocks, apply more MirrorCoat, as described above, or sand and buff it to the desired finish. Allow the surface to cure for several more days. Then begin by wet sanding with 320 grit paper and a good sanding block, proceed on up through 400, 600, 1000 and 1500 grit. Then use a 2500-rpm sander/polisher with a lamb's wool pad and some medium (5000 grit) buffing compound. Follow the manufacturer's directions when using this material. Next polish it out with a product like 3M Finesse-It. These products are all available at automotive finishing stores. After this process the surface will have a high gloss with no dust bumps. Congratulations! Now the project can be put to use.



A FINAL WORD

MirrorCoat should be treated like any fine furniture finish. Clean it with a soft nonabrasive rag dampened with water, Windex, etc. Do not use abrasive cleaners. Clean up any spills before they dry and use pads under drinks, coffee cups, etc. While MirrorCoat is much more heat-resistant than other coatings it is still not a good idea to place hot objects directly on MirrorCoat. We do not recommend the use of wax or polishes on MirrorCoat. These may interfere with the bonding of additional coats if the surface needs refinishing in the future. Remember to avoid long exposure to direct sunlight.

NOTE:

See the individual product MSDS for safety information. Product MSDS can be downloaded directly from www.systemthree.com.



The above bar was coated with MirrorCoat by expert craftsman Jim Facci of JAF Contracting (518-382-0574) in Schenectady, NY.

SYSTEMTHREE®

PREMIUM ADHESIVES & COATINGS

MIRRORCOAT®

POURABLE, SELF-LEVELING BARTOP COATING



METHODS & TIPS FOR APPLYING MIRRORCOAT

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INTRODUCTION

MirrorCoat® is a two-part epoxy resin product specially designed to create a high-gloss, clear decorative coating for wood and other materials. MirrorCoat will also protect the surface from spills and denting. Products like this are sometimes referred to as bartop coatings. But unlike most bartop coatings, MirrorCoat is mixed in the ratio of two parts of resin to one part of hardener by volume. This 2:1 ratio provides a harder and more heat-resistant coating than a typical 1:1 material. MirrorCoat, like all epoxy resin coatings, will yellow slightly over time. Where the material will be exposed to considerable sunshine we recommend using a clear coating containing UV-absorbers. System Three manufactures two such products, Spar Urethane Varnish, and WR-LPU polyurethane. Do not use MirrorCoat epoxy over white backgrounds unless noticeable yellowing is acceptable.

While we have formulated MirrorCoat to be simple to use, there are some steps that, when followed, will produce better results. This brochure discusses the tips and tricks for using MirrorCoat to create beautiful projects. Please read this information before proceeding.

UNDERSTANDING THE PROCESS

MirrorCoat is usually applied to porous surfaces. Like any liquid, it will try to flow into the nooks and crannies and displace any air that is present. During this process the epoxy is curing, and will gradually get thicker until it becomes rubbery and finally solid. Any displaced air will try to rise through the thickening liquid. Air bubbles may not be able to rise to the surface and pop before the material cures. If this happens bubbles will be left in the cured coating. Minimize this problem by applying the material in two coats as described below.

MirrorCoat will attempt to level itself as it cures. Ensure the surface is level or MirrorCoat will pool on the lower portion and run off the surface. Always use a plastic drop cloth on the floor when working with this product.

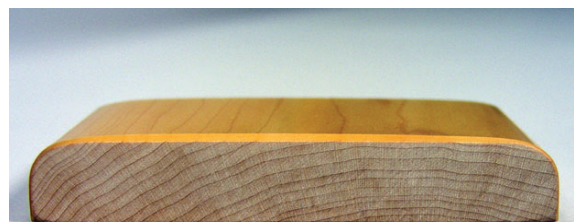
Any airborne dust that lands on a curing epoxy surface will float and leave a small bump in the cured coating. To minimize this problem work as much as possible in a dust-free environment. For best results vacuum the area so that dust isn't stirred up while applying MirrorCoat. Clean the surface using lint free rags dampened with paint thinner. Allow all the thinner to evaporate before application. Avoid tack cloths as they leave a waxy residue, which may interfere with the epoxy bond. After application, turn off fans and air conditioning, and leave the room so that the air in the room stays as still and dust-free as possible. If dust can't be eliminated during application, MirrorCoat may be sanded and polished to a high gloss after curing is complete.

MEASURING AND MIXING

MirrorCoat is mixed at a ratio of two parts of epoxy resin to one part of hardener by volume. To measure by weight, the ratio is 100 parts of resin to 44 parts of hardener. Mix only the amount of MirrorCoat that can be applied in 30 minutes.

Mix MirrorCoat thoroughly. Vigorously mix from the bottom to the top and scrape the sides of the container as well as the mixing stick. The larger the batch, the longer it will take to mix. **To avoid unmixed portions (sticky spots on your table top) use the "two-pot" method.** Mix in one container then pour the material into another, scraping the first into the second. Then mix again before applying.

MirrorCoat begins curing as soon as it is mixed. As it cures it thickens. Pour the material onto the surface as soon as it has been mixed as the heat of the chemical reaction will accelerate the cure if MirrorCoat is left in the mixing container.



Example of MirrorCoat on a board, showing the thickness and flow of a single application.

APPLICATION

Best results are obtained when MirrorCoat is applied in two coats, allowing the product to cure between coats. Apply the material when the temperature is stable or falling, and never in direct sunlight. Sanding between coats is not required unless the previous coat has cured for more than 72 hours. **Apply the first coat and allow it to soak into the surface. This can be brushed or rolled on. Work the material into any nooks and crannies gently to avoid frothing. A plastic squeegee works well for this.** After about thirty minutes (twenty in hot weather) squeegee the surface to remove most of the MirrorCoat. Discard what you remove because it will contain a lot of air. Allow the surface to cure overnight. This step seals the surface so that air can't release and rise through the much thicker second coating.

The following day inspect the surface for any bubbles or craters. Break them by sanding if necessary. If the material sands gummy and clogs the paper, wait another day for additional curing.

The second coat should be applied at a minimum of 20 mils (.020 inches) thick. Since MirrorCoat is a 2:1 epoxy system this translates to one ounce of resin and one-half ounce of hardener per square foot. A 1½ quart kit will cover at most thirty-two square feet. This translates to 80-85 square feet per gallon. Thicker coats level better. Since MirrorCoat cures through chemical reaction rather than drying there is no maximum thickness that can be applied.

Prepare for the second coat by again eliminating any dust and checking to see that the surface is level. Estimate the amount of material needed. Measure and mix as before. This time pour the mixed MirrorCoat directly on the surface in an "S" shaped stream. Spread the material with a brush or squeegee to a level surface. Gravity and time will complete the leveling process. Inspect the surface for any brush hairs. Complete the process with additional batches of material. Fanning the surface quickly and lightly with a small propane torch held about eight inches from the surface will pop surface bubbles. Make sure the fanning is rapid so that the surface is not heated. When the surface looks good, leave the room to prevent dust from circulating and allow the MirrorCoat to cure overnight.