

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 embed that piece of tile! (TIP: Some professionals rout out a shallow cavity in 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.)



SANDING AND BUFFING

If dust has left bumps or small pockmarks, 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."

A FINAL WORD

Let MirrorCoat cure for several more days before putting it to use. MirrorCoat can be used and maintained like a solid-surface countertop. Clean it with a soft, nonabrasive rag dampened with water or a spray cleaner. Do not use abrasive cleaners. Clean up any spills before they dry and use pads under pots and pans, glasses, cups, and dishes. Minor scratches can be polished out using the above techniques. The project can be recoated when the coating gets worn by following the same application procedures. While Mirrorcoat is much more heat-resistant than other coatings, hot enough objects will soften the surface and leave a mark.

If the MirrorCoat project will be exposed to considerable sunlight we recommend overcoating it with a clear coating containing UV-absorbers. System Three manufactures two such products, Spar Urethane Varnish, and WR-LPU polyurethane. Clean up tools and equipment, or wipe up small spills of Mirrorcoat, with alcohol or lacquer thinner.

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

Helping You Put It All Together

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MIRRORCOAT[®]

POURABLE, SELF-LEVELING BARTOP COATING

INTRODUCTION

System Three MirrorCoat[®] is a two-part epoxy resin product specially formulated to create a high-gloss, clear decorative coating for horizontal surfaces. MirrorCoat will also protect the surface from marring, denting, and minor scratches. It is resistant to most household chemicals, and, because of its unique formulation, MirrorCoat will provide a harder, more heat-resistant finish than most counter or bartop coatings. MirrorCoat is solvent-free, and can be used inside a house or a building without creating a hazardous or flammable workspace. It will enhance the natural beauty of most woods, and give many other surfaces a deep, rich look. As a two-part product, it cures by chemical reaction, and must be kept off your skin while working with it. It is recommended for interior use only, because outdoors, like many epoxy resin coatings, it will yellow slightly and lose its gloss over time. Do not use MirrorCoat over white backgrounds unless noticeable yellowing is acceptable.

While we have designed MirrorCoat to be simple to use, there are procedures to follow which produce the best results. This brochure is a step-by-step application guide, with some tips and tricks to help your MirrorCoat project turn out beautiful. Please read this information before proceeding.

UNDERSTANDING THE PROCESS

MirrorCoat is poured on a surface in a much thicker layer than any paint, lacquer or varnish. It is also most commonly applied on porous material, which must be sealed first. Like any liquid, it will flow into 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 coating 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.

Work as much as possible in a dust-free environment, because airborne dust can land on the surface and leave a small bump in the cured coating. For best results vacuum the area to minimize the amount of dust stirred up while applying MirrorCoat.

Clean the surface using lint-free rags dampened with a solvent like paint thinner. Allow all the solvent to evaporate before applying MirrorCoat. Do not use a tack cloth as it can leave a waxy residue, which may interfere with the adhesion of the coating to the substrate. After application of the second coat, 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.

MirrorCoat will level as it cures. Ensure the surface of the project is level or the product will flow towards the lowest spot and run off the surface, or at least create an uneven coating. Use a plastic drop cloth on the floor when working with MirrorCoat.

MEASURING AND MIXING

(TIP: Cured MirrorCoat is very difficult to remove, so use disposable measuring and mixing tools. Graduated paper and plastic containers are usually available wherever MirrorCoat is sold.) Measure the resin and hardener at a ratio of two parts of Part A to one part of Part B by volume, or 100 parts of Part A to 44 parts of Part B by weight. Measure only the amount of MirrorCoat that can be applied in 30 minutes.

Stir the material 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. **(TIP: To avoid unmixed portions, which creates sticky spots on your countertop, 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.)** Pour the material onto the surface as soon as it has been mixed. If MirrorCoat is left in the mixing container, the heat of the chemical reaction will greatly shorten the working time. Large batches of material left in the mixing container long enough will actually get hot enough to burn the user.



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, one thin coat followed by one thick coat. Allow the product to cure between coats. Apply the material when the temperature in the project area is stable or falling, to minimize air displacement into the curing coating. Do not apply in direct sunlight. Pour on the first coat, spread it out with a short-nap paint roller or flexible squeegee, and allow it to soak into the surface. Work the material into any nooks and crannies gently to avoid creating excess foam in the resin. After 20-30 minutes, depending on the temperature, squeegee the surface to leave only enough MirrorCoat on the surface to seal, but not build up, a 3 mil (.003 inch) maximum. Discard foamy removed material. Allow the first coat to cure overnight. This seals the substrate to keep more air bubbles from releasing and becoming trapped in the much thicker second coat.

The second coat should be applied at a minimum thickness of 60 mils, or 1/16 inch, thick. This translates to approximately 25 square feet per gallon or a little over 5 ounces per square foot. Thicker coats will level better. The chemical reaction which cures MirrorCoat produces heat in proportion to the amount applied, so the maximum thickness recommended per coat is one-half inch.

Prepare for the second coat by removing any dust from the work area and ensuring that the substrate is level. Sand or scrape out any bubbles that have cured on the sealer coat. Estimate the amount of material needed and measure and mix as before. Pour the material directly on the surface in an "S" shaped pattern. Spread the material with a brush or squeegee to an even coat. Gravity and time will complete the leveling. Repeat the process with additional batches of material.

Some projects have rounded edges or vertical surfaces that must be coated. For rounded edges, pour excess material onto the surface and allow it to run off. When it has stopped dripping, brush out the runs to create an even coat and allow it to cure. On vertical surfaces, apply MirrorCoat with a brush in thin coats to prevent runs, and build it up to the desired thickness, letting it cure between coats.

After the entire project has been coated, fan the surface lightly with a low flame on a portable propane torch to pop bubbles. Hold the torch about eight inches from the surface, fanning rapidly so that the coating is not heated. When the coating is bubble-free, leave the room to prevent dust from circulating and allow the MirrorCoat to cure overnight.