Polymer Coating

Polymer Coating is an easy-to-use pour-on finish for table tops, plaques, clocks, and figurines. Just one coat is usually required for a deep glass-like finish. It is waterproof, heat- and alcohol-resistant.

Polymer Coating preserves and beautifies precious photos, wall plaques, decorative trays, table surfaces, burl clocks, bar tops, figurines, etc. The sparkling, glossy, clear film enriches color, enhances wood grains and lasts for years. The two-part liquid mix is easy to apply and cures with the look of liquid glass. Heat and alcohol resistant. Waterproof! No polishing required.

INSTRUCTIONS

DANGER:

CONTACT WITH HARDENER MAY CAUSE PERMANENT EYE DAMAGE. MAY BE HARMFUL BY SKIN CONTACT OR BREATHING VAPORS OR MISTS. CONTACT WITH RESIN MAY PRODUCE ALLERGIC REACTION BY INGESTION, INHALATION OR SKIN CONTACT. CONTACT MAY CAUSE EYE/SKIN IRRITATION.

PRECAUTIONS: Avoid inhalation, ingestion, eye and skin contact. Wear protective gloves and goggles. Use window exhaust fan or other suitable equipment for a well ventilated work area. Keep container tightly closed when not in use.

KEEP OUT OF THE REACH OF CHILDREN.

Hardener Contains: Nonyl Phenol, Polyoxyalkleneamines and N-Aminoethylpiperazin.

Resin Contains:A/epichlorohydrin resin and aliphatic and aromatic glycidyl ethers. Contact a poison control center for more health information.

FIRST AID: ORAL: If resin is swallowed, induce vomiting. If hardener is swallowed, do not induce vomiting. CALL PHYSICIAN IMMEDIATELY! EYES: Severe irritant to eyes. In case of eye contact, flush thoroughly with water for 15 minutes and get prompt medical attention. SKIN: Wash immediately with soap and rinse thoroughly with water. Do not use solvents or alcohol to remove product from skin. INHALATION: Move to fresh air. If not breathing, administer CPR. If breathing is difficult, get medical attention.

PREPARATION. Some things to know before using Polymer Coating: IT IS MOST IMPORTANT THAT BOTH RESIN AND HARDENER ARE THOROUGHLY "MIXED" TOGETHER IN A FLAT WALLED AND FLAT BOTTOMED CONTAINER WITH A FLAT SIDED STIR STICK. SIDES AND BOTTOM OF CONTAINER MUST BE SCRAPED WHILE MIXING.

PRODUCT WILL NOT CURE PROPERLY AND WILL BE SOFT OR STICKY IF MIXING DIRECTIONS ARE NOT CAREFULLY FOLLOWED-READ DIRECTIONS CAREFULLY. Polymer Coating is a reactive polymer compound. It cures to a thick, glossy coating in about 8 hours at 70 degrees F, and reaches full strength and toughness in about 72 hours. This durable, resilient material requires no polishing to produce a high gloss. One coat is all that is usually required for a deep attractive finish, however, two or more coats may be applied one over the other by simply wiping the surface with alcohol prior to recoating.

POLYMER COATING IS NOT RECOMMENDED FOR EXTERIOR USE. TO COAT OVER POLYURETHANE FINISHES, SCUFF SAND AND WIPE CLEAN PRIOR TO COATING.

Tools Required: Graduated cups, stir sticks and brushes are available. The mixing containers must have smooth, flat walls and a flat bottom. The stir stick must have a straight edge (like a paint paddle) to allow the user to scrape sides and bottom of mixing container thoroughly while mixing. The brush is used to coat edges and to pick up drips from the work surface covering to brush on areas at the edges missed during pouring.

Surface: Coverage will vary according to surface and method of application. The surface to which Polymer Coating is to be applied should be dry and free from dust, grease, wax or oil. Level the surface. The surface should be up off the work area about 2 inches to allow the coating to drip freely off the sides of the item being coated. Put plastic sheeting, wax paper or multiple layers of newspaper underneath the item being coated to catch drips. See "Seal Coats' on back. The unique self-leveling qualities of Polymer Coating can be attained only by using enough material to flood the surface. It is better to mix a little too much, rather than too little. Mix only as much Polymer Coating as you can pour and spread at one time. Unmixed components should remain in original containers. After pouring you have about 25 minutes working time before Polymer Coating begins to harden.

Coverage.

8 OZ. KIT. ..... 2 square feet
PINT KIT. ..... 4 square feet
QUART KIT. ..... 8 square feet
GALLON KIT. ..... 32 square feet

Surface Care.
Furniture polish will prolong the life of the surface and clean smudges, etc. If scratches occur that cannot be polished out, clean with acetone, then recoat with Polymer Coating. This additional coat will remove all surface blemishes. Polymer Coating is heat resistant, however, if should not be intentionally subjected to high temperatures such as cigarettes, cooking utensils, etc. Polymer Coating is water and alcohol proof. Objects, when left on the surface for a period of time, may leave impressions on an Polymer Coating surface (the coating is made tough, yet flexible so as to not be brittle and prone to shattering from impact). Impressions usually disappear in a few hours at normal **72° - 75°**room temperatures. The warmer the environment, the more quickly impressions will appear and after items are removed, will disappear. This characteristic, coupled with outstanding moisture and chemical resistance, makes Polymer Coating an ideal coating for bar tops, coffee tables and dining tables.

Creative Ideas: General Surface Coating. Polymer Coating may be applied over most surfaces.

Wood	Sea Shells	Painted Surfaces
Decals	Dried Flowers	Transfers
Oil Paints	Beans	Seeds
Pine Cones	Bread Dough	Figurines
Rocks	Straw Flowers	Styrofoam
Bisque	Metal	Plaster
Paper	Models	Fabric

Tables / Bar Tops / Large Objects. We recommend a helper to speed the mixing process for large areas. Large or small, preparation is important. Table must be dry, sanded, level, free from sawdust, dirt or loose charred wood. Most raw wood is porous and should be sealed to prevent air bubbles from escaping into the final coat (see ‘seal coats”). After seal coat—flood generously with Polymer Coating. Insure that the fluid is well distributed, covering all dry spots (follow steps under “bubbles”), and then leave it alone! Elevate a plastic drop cloth above the table as a dust cover. Give your table 2-3 days to cure undisturbed in a warm room before putting it into service.

Decoupage/Photographs/Newspaper Clippings. Polymer Coating has revolutionized the art of decoupage with ifs one-coat application. Use white glue to mount the items to be coated. If you are working with thin paper, then avoid “blotching” by sealing first with the white glue solution Make sure glue is thoroughly dry before coating with Polymer Coating

TECHNIQUES:

Liquid Storage. For best results, fluids should be stored at 70-75°F prior to use. Both resin and hardener can be left in open containers but should be closed for long storage. The shelf life of this compound is approximately 1 year. All polymer compounds react in some way to the presence of humidity. Polymer Coating has been developed and formulated in such a way that its reaction to humidity is minimized. Using Polymer Coating in a room where humidity is under **50%**will give best results.

NOTE: Due to the purity of the Polymer Coating resin, a clouding or settling of the resin may occur in extremely cold conditions. Should this 'clouding occur, place resin container in **hot tap** water until resin clears. Allow to cool to room temperature before combining with hardener.

Gluing. If waiting 3-4 hours is no problem, then Polymer Coating works very well as a glue. But, if you're in a hurry, white glue works fine. Apply glue to the back of your print, photo, or whatever. Or if you wish, you can brush glue over the entire surface of the plaque and just lay the subject on top. Then use a roller or your hand to push air bubbles out from under the print. Be sure glue is dry before coating with Polymer Coating.

Seal Coats. Open grain woods such as oak or walnut require a thin coat of Polymer Coating prior to flood coating to prevent air from escaping from the wood into the thick fluid. To seal coat something, just mix up about 1/4 the amount you would use to flood coat, and spread it thinly over the entire surface, using a brush or scraper fool. This puts a thin film down over air passages, and seals them off. Occasionally two seal coats are required. Allow the seal coat to cure for at least 5 hours, and you are ready to flood coat the object. Porous fabric or paper should be sealed with one or two coats to white glue prior to flood coating. Envirotex Spray Sealer No. 4013 is available in a 13 oz. spray can. It is very fast drying and provides a quick recoat over paper or wood and "stiffens" soft items such as dry flowers or fabrics

Professional Tips for Coating Large Areas, Tables & Bar Tops!

Large areas, tables & bar tops often require special application procedures when applying Polymer Coating.

The following information and tips will help you achieve professional results.

Familiarize yourself with the following procedures by practicing on a small sample first.

Required tools:

1. Measuring cup & straight sided, flat bottom disposable paper or plastic pail. Mixing container must be 50% larger than mix to allow for an adequate area for mixing. Do not mix in a wax coated container, as the wax coating may break free contaminating the mixture.
2. Stirring paddle must have a straight edge, such as a paint paddle, to allow user to constantly scrape sides and bottom of mixing container.
3. Plastic spatula, cardboard or business cards work well to help spread Polymer Coating over large areas.

Coating area conditions:

1. A clean, dry and dust free room is a must.
2. Humidity: All polymer compounds react to high humidity. Using Polymer Coating in a room where humidity is below 50% will give best results. High humidity can cause an oily looking film on the finished surface that can be repaired by re-coating in a room at the correct humidity. Placing an inexpensive

weather set in your coating room will help you with knowing room temperature and humidity. The lower the humidity, the faster and harder the cure. If high humidity is a problem, the use of a dehumidifier in your coating room will help remove moisture in the air.

3. For best results, coat at temperatures between **70°** to **80° F.** Higher room temperatures after pouring will help to speed up cure rate as well as hardness. We do not recommend temperatures above 1000 F. For optimum heat control, use a small electric heater. Do not use propane heaters since a byproduct of burning propane is moisture vapor.

Surface:
The surface to which Polymer Coating is applied to should be:

1. Dry and free from dust, dirt, oil, grease, etc.
2. Level
3. Elevated to allow the Polymer Coating to flow freely off the sides of the item to be coated. Use paper or plastic cups to elevate the item. Place 2 to 3 in from sides so excess fluid does not run under and glue the cups to work piece!

Sealing New Surfaces & Preparing Old: **New Wood Surface:** Requires a thin seal coat of Polymer Coating prior to flood coating. Mix approximately 1/4 the amount you would use to flood coat. Spread thinly over entire surface then scrape off all excess with a piece of cardboard or plastic spatula. This puts a thin film down over air passages and seals them off. This thin seal coat will allow the air to escape freely while effectively sealing the wood surface. If a thick seal coat is applied, escaping air will be trapped and will result in a large number of bubbles that are difficult to remove, especially on Oak! Should this occur, do not attempt to remove the bubbles with a torch as this will heat up the wood surface resulting in the release of more bubbles. Instead, scrape off all excess Polymer Coating so that the bubbles can freely break on their own! Allow the seal coat to cure for 5 hours, and you are ready to flood coat. Note: Occasionally a second seal coat is required. To determine if this is necessary, check the first seal coat. The surface should have an overall shiny appearance to it. Dull spots are an indication that the surface is not effectively sealed. These dull spots must be sealed with a second seal coat. Note: Due to the porous nature of Oak, a second seal coat is a must!

Pictures, Prints, Puzzles, Fabric, etc.:
Glue these items down with white glue that dries clear. Apply a generous amount of white glue to back of your picture, print, etc., then place on work surface. Using a brayer or squeegee, remove excess glue and air bubbles from under picture, print, etc. Using a foam brush or paint roller apply two seal coats of white glue over your work surface. Allow glue to dry between coats. Do not use spray adhesives. Spray adhesives will not hold under Polymer Coating

Painted, Previously Finished Surfaces and Plastic Laminates:
These surfaces do not require seal coats but must be sanded for adhesion, then cleaned prior to coating. Note: All wax and polish must be removed from previously finished surfaces with wax remover.

Large Wood Slabs & Preventing Warpage:
Moisture content of wood must be 15% or less to coat with Polymer Coating. Once coated, seal underside of slab to prevent moisture from migrating in or out of wood. To check moisture content, use a moisture meter or drill small test holes into the backside of your wood slab. Check the wood shavings for moisture. The wood shavings must feel dry!

Table & Bar Top edges, etc.:
Both the top and bottom square edges should be slightly rounded with sandpaper or with a router and ¼" cove bit. The result of this will be a smooth professional looking edge requiring fewer coats of Polymer Coating.

APPLICATION: Before starting projects, see additional information under Creative Ideas and Techniques

1. Measure. In the same graduated container

2. Mix. Mix the measured resin and hardener in a clean container. Stir until the material is thoroughly blended. Mixing should be completed after 2 minutes of *vigorous* mixing. The importance of thorough mixing cannot be over-emphasized. The two components must be whipped much like mixing a cake batter. If bubbles get whipped into the mixture, do not be concerned; the bubbles can be easily removed later. Improper mixing can result in soft or sticky spots.

To prevent problems with improper mixing, we suggest using a "double-cup" method of mixing: have two mixing containers ready. Begin mixing in the first clean mixing container. After one minute of mixing, transfer the Polymer Coating into the second container and continue mixing for one minute. Mixing should be completed after two minutes of *vigorous* mixing.

3. Pour, Do Not Wait! Pour as soon as thoroughly mixed. Carefully pour over the surface in an even pattern. Spread where necessary using a piece of stiff paper to help liquid flow together. Caution: It Polymer Coating is left in mixing container, it will become hot and set up rapidly.

4. De-gas. After about 5 minutes, the air bubbles created while stirring will rise to the surface. They can be easily and effectively broken by GENTLY exhaling on them until they disappear (avoid inhaling fumes). A propane torch can be used as an aid in removing bubbles from a freshly coated surface. Hold the torch about 6 inches away and sweep smoothly across the surface until the bubbles are gone. Use low flame. This process may be repeated as often as is necessary while material is liquid. Brush edges until material has set" firm enough not to "sag." NOTE: It is carbon dioxide, not heat, which breaks up the bubbles

5. Cure. For best results, coat at temperatures between 70^0F and 80^0F. Allow the coated item to cure in a warm dust free room. Curing time will vary with humidity and temperature. Humidity below 50% is recommended for proper hardness of film. Placing a clean cardboard box over the item is effective in keeping dust off the surface during the cure cycle.

Temperature	Dust Free	Hard Cure
70° F	4-7 hours	72 hours
80° F	3-6 hours	48 hours
90° F	2-5 hours	36 hours

6. Clean-up. While liquid, the material can be cleaned up with alcohol. After it has cured, it can only be removed by long exposure to epoxy stripper, sanding or infrared paint peeler.

Bubbles.
One of the important signs that you are mixing Polymer Coating well enough is the appearance of bubbles while you are mixing. This is normal. Polymer Coating has been specially formulated to de-gas itself, freeing most bubbles, automatically. Occasionally, however, bubbles will become trapped in the surface. They can be easily removed by exhaling your breath gently over the surface, or by carefully sweeping a propane torch across the liquid at a height of approximately 6-8 inches.

Torching.
As mentioned above, torching is a method for releasing bubbles from a pour that may not de-gas itself. Care should be taken to avoid over torching. If wooden objects are not sufficiently seal coated prior to torching, the torching will cause wood to “bleed” air into a fresh coat of Polymer Coating, and these bubbles are difficult to stop. The torch should never be held in one place, as this will permanently damage surface and coating. Use a swift, even sweeping motion when torching and never hold torch closer than 6 inches from surface

Satin Finish.
The following method may be used to create a satin finish with Polymer Coating after applied and completely cured. If after a period of time you decide you would like to change the satin finish back to high gloss, clean the surface thoroughly with acetone (to remove all wax and dirt) and recoat with Polymer Coating. It will cure once again to a beautiful glossy surface.

a. To remove the gloss, rub the fully cured surface with wet or dry 0000 steel wool or #600 sandpaper. Rub with the grain of the wood or in small consistent circles.
b. Wipe the surface clean. Using a soft cloth or felt, apply a paste made of oil (i.e., decoupage "polishing oil", linseed oil, or crude oil) and a carnauba based wax. Decoupage "polishing powder" may be used in place of the wax.
c. After letting the surface dry, rub off any wax and buff with a carnauba based wax.

Drips. Excess Polymer Coating will drip over sides of the plaque or table as if is being poured. Pick up excess drips with a brush and coat the edges you missed when pouring the surface. Drips will harden on the bottom of your project during the curing process. One of the following methods will eliminate the drips.

a. Scrape them off the bottom while they are still fluid, about 30-40 minutes after pouring
b. BEFORE POURING, apply a generous coat of paste wax or masking tape to the edges of the back of the project. After the Polymer Coating is cured, the drips can be popped off.
c. Drips can be sanded off after Polymer Coating is cured. A circular sanding attachment on an ordinary hand drill works well

Before Attempting Large Projects: Polymer Coating is easy to handle, but before attempting large projects, we recommend doing a small one to "get the feel" of applying Polymer Coating. We recommend a helper to aid in mixing when coating large objects.

Professional Tips for Coating Large Areas, Tables & Bar Tops!

Large areas, tables & bar tops often require special application procedures when applying Polymer Coating. The following information and tips will help you achieve professional results. Familiarize yourself with the following procedures by practicing on a small sample first.

Application:
Before measuring Polymer Coating, ensure that the resin & hardener bottles are slightly warm to the touch. F). If not, place both bottles In warm, not hot, water for 5-to-lO minutes prior to using. As a result, the resin and hardener will measure easier and mix better with fewer bubbles

1. **Measure the Polymer Coating in exact amounts by volume.** Do not guess at the proper ratio or just empty the two bottles into your mixing container. Unless you measure equal portions of resin and hardener, your ratio will very likely be inaccurate, resulting in a soft sticky coating! Determine the amount of fluid to be used by measuring the top and sides of your project. On average use 4 -to- 6 ounces of Polymer Coating per square foot. Polymer Coating will not level correctly if spread too thin!
2. **Mix measured resin and hardener in a clean, straight sided, fiat bottom container.** Stir until thoroughly blended. Scraping sides and bottom continually while mixing is a must! Mixing should be completed after 2 minutes of vigorous mixing. To ensure a thorough mix, have two mixing containers ready. Begin mixing in the first mixing container. After one minute of vigorous mixing, transfer contents into

second container and continue vigorous mixing for two minutes. Improper mixing will result in soft or tacky spots that will not cure! We do not recommend mixing more than one gallon of fluid at a time.

3. **Pour, do not wait!** Pour as soon as thoroughly mixed. Pour over surface an a circular pattern. Start close to the edge and work towards the center of your work. This will allow the Polymer Coating to level from the center out to the edges of your work surface. Help spread where necessary with a stiff piece of paper or plastic spatula. Be careful not to spread too thin resulting in a wavy surface. Use a helper for mixing and pouring large objects. One person can mix while the other pours the coating. Caution: If Polymer Coating is left in the mixing container, it will become hot and set up rapidly!
4. **Working time with Polymer Coating:** If you pour immediately after mixing, you will have approximately 25 minutes of working time at **70°. Less time for warmer temperatures.**
5. **Removing Bubbles:** Within 10 minutes of pouring, air bubbles created while mixing will rise to the surface and begin to break. Exhaling across the surface at this point will break bubbles. However, on large surfaces the use of a small propane torch is the easiest and most effective method of removing air bubbles. The reasons for this are that Polymer Coating contains no flammable solvents, and carbon dioxide rich exhaust gases from a propane flame effectively release trapped bubbles. With a moderate flame, pass the torch over the surface with a swift, even, sweeping motion. Never hold torch closer than 3 to 4 inches from surface. Sweep past the ends of your work so that the torch never stops on your fresh coating! Avoid over torching which may scorch the surface. Warm room temperatures will result in better bubble release. Note: We do not recommend the use of a hair dryer for removing bubbles. Hair dryers will blow lint from the surrounding air onto your work! **Caution: Although Polymer Coating contains no flammable solvents, the objects you are coating, as well as surrounding table covers, etc., may be flammable.**
6. **Cover your work:** Use a plastic drop sheet to keep dust and lint particles off while Polymer Coating sets.
7. **Flat straight edges:** After a number of Polymer Coating coats, wide flat edges can become slightly wavy. Sand the wavy edge flat using 120 grit paper. Wipe edge clean and apply your final flood coat Do not sand In your clean coating area.
8. **Drips:** Drips that have accumulated on the bottom edge can be removed by sanding after the Polymer Coating hardens. To easily remove drips, apply 2 wide plastic tape to back of project along edge prior to coating surface. Do not use masking tape. Press firmly to work out trapped air. Once surface is coated and cured, use a sanding block and sand through coating on bottom edge. Then peel tape off removing drips!

Surface Care:

Furniture polish will prolong the life of the surface and remove smudges, etc. Heavy objects, when left for a period of time may leave impressions on the Polymer Coating surface. Once the objects are removed, the impressions will disappear in a few hours at normal room temperatures.

Satin Finish:

Use Pumice or Rottenstone polishing powder and a wet sponge. Lightly wet the Polymer Coating surface, then sprinkle with polishing powder. Apply a firm, slightly wet sponge and move in small circles until the entire surface gloss has been removed. Wipe surface clean and polish with paste type polish.