Crystal Sheen®

Crystal Sheen® is a reactive polymer compound.

It cures to a thick, glossy coating in about 8 hours at 70° 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, *also known as a flood 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 rubbing alcohol prior to re-coating.

PREPARATION: SOME THINGS TO KNOW BEFORE USING CRYSTAL SHEEN®: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.

Tools Required.

Disposable rubber or vinyl gloves and protective eye wear are recommended. Graduated measure/mixing cups, stir sticks and brushes are generally available where this product is sold. Mixing containers must have smooth, flat walls and a flat bottom. *Do not use wax coated containers as the wax will break off during mixing and will contaminate your coating.* 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. A disposable nylon brush works well to coat edges and apply product to curved surfaces. ***Large projects:*** A small hand-held propane torch works well to remove bubbles from mixing.

New and Previously Finished Surfaces.

For new surfaces, see "Seal Coats" in addition to the following information. For existing surfaces previously finished with products such as polyurethane, the surface must be lightly sanded and wiped clean with rubbing alcohol. All surfaces must be free of wax, grease or oil. Coverage will vary according to surface and method of application. 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. The unique self-leveling qualities of Crystal Sheen® 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 Crystal Sheen® as you can pour and spread at one time. Unmixed components should remain in original containers. After pouring you have about 15 minutes working time before Crystal Sheen® begins to harden. **Crystal Sheen® IS NOT RECOMMENDED FOR EXTERIOR USE.**

Coverage.

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

Warning: Do not pour more than 1/8" thick at one time. Thick pours should be done in successive pours, allowing each pour time to cure.

Storage.

For best results, Crystal Sheen® 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. Crystal Sheen® has been developed and formulated in such a way that its reaction to humidity is minimized. Using Crystal Sheen® in a room where humidity is under 50% will give best results.

APPLICATION:

IMPORTANT: Crystal Sheen® performs best at 75° F. Crystal Sheen® bottles should feel slightly warm to the touch, if they feel cool, they must be warmed by placing them in warm tap water (not hot) for 5 to 10 minutes prior to using. If bottles become overheated, allow them to cool before using. Never mix hot resin and hardener together! Mixing Crystal Sheen® when cold can result in cloudy pours with microscopic bubbles.

1. Measure.

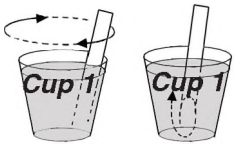
Carefully measure equal amounts of resin and hardener into a straight sided, flat bottom, wax free measuring container. **WARNING: Do not vary the 1 to 1 ratio for any reason!** *Failure to measure equal amounts of resin and hardener will result in soft or sticky surface.* ***Do not simply pour the contents of both bottles and expect properly measured amounts, always measure!***

EXACTLY 1 part Resin.

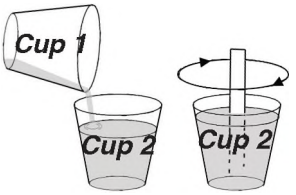
Then add to that EXACTLY 1 part Hardener by volume (not weight).

2. Double Mixing (required).

For Crystal Sheen® to chemically blend, it must be mixed together in two stages. With the resin and hardener measured, use a stir stick and mix together for two full minutes. During mixing, use the stir stick to scrape the sides and bottom of your mixing container. Occasionally scrape the mixture from your stir stick back into the solution.



After two full minutes of mixing, pour the contents from the first container into a second container. Using a new stir stick, mix the contents of this second container another minute, again scraping sides of container and stir stick. Immediately pour from the second container onto your project. ***Note:*** *Inadequate measuring and mixing is the most common reason for soft or sticky spots.*



Warning: *Never use an electric drill with a mixing attachment to mix product. Also, due to rapid heat build up with large mixes, do not attempt to mix more than one gallon per mix!*

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. Brush edges occasionally until material has set firm enough not to "sag". **Caution:** *If Crystal Sheen® is left in mixing container, it will become hot and set up rapidly.*

4. Bubbles.

After about 15 minutes, air bubbles created while mixing will rise to the surface. They can be easily and effectively broken by GENTLY exhaling on them until they disappear. A small hand-held propane torch can be used as an aid in removing bubbles from a freshly coated surface. Hold a torch approximately 6 inches away from the coating and use a gentle sweeping motion 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. The torch should never be held in one place for long, as this can permanently damage surface and coating. Care should be taken to avoid over torching. If wooden objects are not sufficiently seal coated prior to torching, heat from torching the surface can cause the wood to "bleed" air into a fresh coat of Crystal Sheen®, and these bubbles are difficult to stop. Use a swift, even sweeping motion when torching and never hold torch closer than six inches from surface. Do not use a torch on surfaces that may be flammable, such as paper and dried flowers. ***NOTE:*** *It is carbon dioxide, not heat, which removes bubbles.*

5. Cure.

For best results, coat at temperatures between 70° F and 80° F. 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. Elevate a plastic drop sheet over your project to prevent dust particles from settling on the surface while curing.

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.

SKIN: Use warm water and liquid soap to remove from skin. *NEVER USE SOLVENTS OR ALCOHOL.*

TOOLS: While liquid, the material can be cleaned from tools with alcohol or solvent. Once cured, sand or scrape material from tools.

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 rubbing alcohol, then re-coat with Crystal Sheen®. This additional coat will remove all surface blemishes. Crystal Sheen® is heat resistant, however, if should not be intentionally subjected to high temperatures such as cigarettes, cooking utensils, etc. Crystal Sheen® is water and alcohol proof. Objects, when left on the surface for a period of time, may leave impressions on an Crystal Sheen® 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° F - to - 75° F room temperatures. The warmer the environment, the quicker impressions will appear and after items are removed, will disappear. This characteristic, coupled with outstanding moisture and chemical resistance, makes Crystal Sheen® an ideal coating for bar tops, coffee and dining tables.

CREATIVE IDEAS:

General Surface Coating. Crystal Sheen® may be applied over most surfaces including - Wood, Metal, Glass, Sea Shells, Painted Surfaces, Decals, Dried Flowers, Oil Paint, Pine Cones, Dried Bread Dough, Seeds, Rocks, Straw Flowers, Figurines, Bisque, Styrofoam, Paper, Models, Plaster, Fabric and found objects.

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 Crystal Sheen®. 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.

TECHNIQUES:

Decoupage/Photographs/Newspaper Clippings. Crystal Sheen has revolutionized the art of decoupage with its one-coat application. Use white craft glue to mount items to your plaque. While glue is wet, use a hard rubber roller or a smooth round bottle on its side to squeegee air bubbles out from under the print. Start in the center of your work and roll outward. If working with paper, avoid "blotching" by sealing paper with white craft glue. If glue appears thick, use a solution of four parts white craft glue to one part water. Two seal coats are recommended, fabric may require three seal coats. Glue must be thoroughly dry before coating with Crystal Sheen®.

Seal Coats. Open-grain woods such as oak, walnut or mahogany require two, sometimes three thin seal coats of Crystal Sheen® prior to flood coating. This prevents air from escaping from the wood into the thick fluid. To seal coat, mix one to two ounces per square foot and spread it thinly over the entire surface using a plastic spatula or stiff pieces of paper . This puts a thin film down over air passages, and seals them off. Allow the seal coat to cure for at least 5 hours. Repeat this process until you have a uniform gloss over the entire surface. Flat or dull spots are an indication that you need to repeat this process. Once you have a uniform gloss over the entire surface, you are ready to flood coat the object. Porous fabric or paper should be sealed with one or two coats of 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 re-coat over paper or wood and "stiffens" soft items such as dried flowers or fabrics.

Satin Finish. The following method may be used to create a satin finish with Crystal Sheen® once cured.

a. To remove gloss, wrap 600 grit wet/dry sandpaper around a sanding block, chalk board eraser or felt block. Wet the cured surface and sandpaper lightly, then rub the surface in small consistent circles until the surface appears dull, wipe the sanded surface occasionally to check for this.

b. Once the surface has a uniform dull appearance, wipe the entire surface clean. Then, using a soft cloth, apply paste wax with a carnauba wax base. *Carnauba wax products can be found in the automotive and hardware section of most retail outlets. Follow the manufactures directions for applying and buffing. Do not apply wax products containing silicone, which may react with the new finish.*

Note: If you decide to change the satin finish back to a high gloss, clean the surface thoroughly with rubbing alcohol (to remove all wax and dirt) and re-coat with Crystal Sheen®. It will cure once again to a beautiful glossy surface.

Drips. Excess Crystal Sheen® will drip over sides of the plaque or table as it 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, plastic or vinyl tape to the edges of the back of the project. After the Crystal Sheen® is cured, the drips can be popped off.

c. Drips can be sanded off after Crystal Sheen® is cured. A circular sanding attachment on an ordinary hand drill works well.

Large Projects. Crystal Sheen® is easy to handle, but before attempting large projects, we recommend a small one to "get the feel" of applying Crystal Sheen®. We highly recommend a helper to aid in mixing when coating large objects. A wood paint paddle and a large plastic mixing container with graduated markings work well for large mixes. These items can be found at your local paint store.

***Warning:** Never use an electric drill with a mixing attachment to mix product. Also, due to rapid heat build up with large mixes, do not attempt to mix more than one gallon per mix!*

TROUBLE SHOOTING:

SOFT & STICKY SPOTS: Is a result of improper mixing or inaccurate measurements of resin and hardener. The soft or sticky material must be removed and the area re-coated. Use a paint scraper to remove all soft sticky material, then wipe area clean with lint free cloth dampened with acetone, lacquer thinner or denatured alcohol. *Warning, do not attempt to recoat over soft or sticky spots!* ***Prevention:*** Always measure equal amounts by volume not weight, then double mix as per the instructions. Never guess the proper ratio or just empty the two bottles into your mixing container. Always use a proper measuring device and measure equal portions of resin and hardener. ***Note: Inadequate measuring and mixing is the most common reason for imperfect results.***

THICK, FROTHY BUBBLES WHEN MIXING: This is a result of trying to mix cold Crystal Sheen®. ***Prevention:*** Store Crystal Sheen® in warm area, or warm prior to using.

CURED PIECES LOOK CLOUDY: This is generally the result of mixing cold Crystal Sheen®. ***Prevention:*** Warm Crystal Sheen® as stated in the instructions prior to using.

CLOUDY RESIN: Due to the purity of Crystal Sheen®, a clouding or settling of the resin may occur from storing in cold conditions. This is a normal process and does not affect the outcome of this product. Should this occur, simply set the resin container in hot tap water until clear. This heating process may need to be repeated several times with severely cloudy resin. Allow to cool before using. ***Prevention:*** Store in warm area.

WAVY, UNEVEN SURFACE: Is the result of spreading Crystal Sheen® too thin or overtorching. ***Cure:*** Flood coat with enough Crystal Sheen® to properly cover area.

WARRANTY:

The recommendations given here serve only as a guide. Because of variables of temperature, humidity, types of molds, colorants and embedments, we cannot guarantee results. Our liability is limited to the replacement price of the product

OTHER ETI PRODUCTS TO LOOK FOR:

- Envirotex Jewelry Resin®
- Envirotex Jewelry Clay®
- Ultra-Seal® Multi-purpose Sealer Glue.

CASTIN'CRAFT® CASTING PRODUCTS:

- EasyCast® Clear Casting Epoxy.
- Opaque Pigments - Red, Yellow, Green, Blue, Brown, Black, White & Pearlescent.
- Transparent Dyes - Red, Yellow, Green, Blue & Amber.
- Mold Builder® latex rubber for making your own molds.
- Mixing Cup Set (includes 6 - 10 oz. plastic graduated measure mixing cups, 6 stir sticks and 3 craft brushes).
- Polyester Clear Casting Resin.
- Mold Release / Conditioner.
- EasyMold® Silicone Putty.
- EasyMold® Silicone Rubber.

HEALTH & SAFETY: Read warnings on resin and hardener containers before using.

Conforms to ASTM D-4236

PROJECT IDEAS: For the latest in project ideas and techniques, visit our web site: http://eti-usa.com or our blog site at http://resincrafts.blogspot.com/

Made in USA

ENVIRONMENTAL TECHNOLOGY, INC.
South Bay Depot Rd., Fields Landing, CA. 95537
Ph: (707) 443-9323 www.eti-usa.com
Email: mail@eti-usa.com