

# CSGX Industrial Instructions

Large areas, tables & bar tops often require special application procedures when applying CSGX. 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 CSGX 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 CSGX 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 100° 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 CSGX is applied to should be:

1. Dry and free from dust, dirt, oil, grease, etc.
2. Level
3. Elevated to allow the CSGX to flow freely off the sides of the item to be coated. Use paper or plastic cups to elevate the item. Place cups 2" 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 CSGX 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 beat up the wood surface resulting in the release of more bubbles. Instead, scrape off all excess CSGX so that the bubbles can freely break on their own! Allow the seal coat to cure for 4 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 CSGX.**

**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 CSGX. 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 1/4" cove bit. The result of this will be a smooth professional looking edge requiring fewer coats of CSGX.

## Application:

Before measuring CSGX, ensure that the resin & hardener bottles are slightly warm to the touch (70° F). If not, place both bottles in warm, not hot water for 5-to-10 minutes prior to using. As a result, the resin and hardener will measure easier and mix better with fewer bubbles

1. **Measure the CSGX 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 CSGX per square foot. CSGX will not level correctly if spread too thin!

2. **Mix measured resin and hardener in a clean, straight sided, flat 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 in a circular pattern.** Start close to the edge and work towards the center of your work. This will allow

the CSGX 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 CSGX is left in the mixing container, it will become hot and set up rapidly!

**4. Working time with CSGX:** If you pour immediately after mixing, you will have approximately 15 minutes of working time at 70° F, 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 CSGX 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 CSGX 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 CSGX sets.

**7. Flat straight edges:** After a number of CSGX 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 CSGX 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 CSGX 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 CSGX 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.

#### **Trouble Shooting Guide!**

**1. Soft & Sticky Spots:** These spots are the result of unmixed CSGX that has been scraped from the mixing container. Cure: All soft, sticky material must be removed! Use a paint scraper or chisel, then wipe area clean with solvent and lint free cloth. Use the two-container mix method and re-pour entire area. Prevention: Pay closer attention to scraping sides and bottom of mixing container while mixing. For a thorough mix, double mix in two containers. Never scrape out last few drops!

**2. Soft Tacky Surface:** Is a result of improper measurements of resin and hardener. Cure: All soft tacky material must be removed! A paint scraper works well for this, then clean area with solvent and lint free cloth. Re-pour with properly measured and double mixed CSGX. Prevention: Do not guess at the proper ratio or just empty the two bottles into your mixing container. Use a proper measuring device and measure equal portions of resin and hardener.

**3. Thick, frothy bubbles when mixing.** This is a result of trying to mix cold CSGX. Prevention: Store CSGX in warm area, or warm prior to using.

**4. Cloudy Resin:** Due to the purity of CSGX resin, 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. Allow to cool before using. *Prevention: Store in warm area off cold floor.*

**5. Wavy, Uneven Surface:** Is the result of spreading CSGX too thin or over torching. Cure: Flood coat with enough CSGX to properly cover areas.

**6. Small Clear Lumps in surface:** These lumps are often the result of reusing a brush that was previously used with CSGX. Although you may have attempted to clean all residue from your brush with solvent, a brush used with CSGX can never be completely cleaned. If the brush is used again, clear hardened particles still in the bristles will break free and travel into your fresh coating. These particles usually go undetected until the next day, when you notice small clear lumps in the surface. Cure: Sand surface, recoat with CSGX and use a new disposable brush.

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