

CHEMICALS

CHEMICALS are used for preparing metals for soldering, changing the color of your solder & lead, for cleaning up, polishing, weatherproofing and strengthening your panels and more. All have been specifically designed for use in Stained Glass.

Flux

Flux allows solder to bond to copper foil or lead. Good flux will create a solid bond with a minimum of unpleasantness. Both paste and liquid fluxes work well on lead, foil, zinc, brass and steel.

PASTE FLUX:

- **GLASSWORKS FLUX (#0771)** is fast acting; use sparingly. Works well on oxidized lead. This is a special preparation in a light, easy to apply paste base. 2 oz. jar.
- **LA-CO ZINC CHLORIDE FREE PASTE FLUX (#07725)** Formulated to work with all alloys of solder, including lead free. Detergent action ingredients clean your metals as you solder, doing a good job on clean or tarnished metals. **Non-toxic, non-acid, no zinc chloride fumes!** 2 oz jar.
- **COPPER MATE PASTE FLUX (#07777)** from Canfield is the answer to those looking for a quick acting paste flux. As with all fluxes, use sparingly to minimize cleanup. Sold in an generous 4 oz tub.



ZINC CHLORIDE BASED LIQUID FLUX:

- **GLASFLEX (4 oz bottle - #0770; 1 gal bottle - #07701)** is a heavy liquid flux by Glastar which is easy to apply, stays without running, and cleans up in a flash.
- **NOVACAN OLD MASTERS STAINED GLASS FLUX (8 oz bottle - #0772; 2 gal bottle - #07722)** is an all purpose, water soluble flux. Low fuming and easy water cleanup.
- **CANFIELD BLU-GLASS FLUX (#0774)** is billed by Canfield as being super-safe. It is a low fuming flux, made especially for the stained glass industry. 8 oz bottle.
- **CANFIELD SOLDER MATE 11 LIQUID FLUX (#07775)** is Canfield's best selling flux. This is an all purpose, water soluble flux, perfect for all stained glass soldering applications. Sold in an 8 oz bottle.
- **CANFIELD SOLDER-MATE SOLEIC LIQUID FLUX (4 oz bottle - #07770 ; 16 oz bottle - #07772)** is Canfield's oleic acid based flux used primarily for soldering lead came. Not recommended for copper foil work as the organic acid base doesn't have the activity that copper requires. This is the preferred solder flux in many large studios specializing in lead came work and restoration work. **Contains NO zinc chloride.**



Patina

Patina alters the color of your lead, zinc or solder. Before applying patina, clean your work using The Solution flux cleaner (#0773) or CJ's Flux and Patina Remover (#0695). After applying patina, use Liva Stained Glass Polish (#0992) to polish and wax your finish.



COPPER PATINA:

- **SUPERBRITE COPPER PATINA (#0791)**, by Novacan gives you a nice even antique copper finish, but can be buffed up with Finishing Compound for a bright shiny penny look. Sold in 8 oz bottles.

BLACK PATINA:

- **BLACK MAGIC BLACK PATINA (#0793)** by Novacan gives a deep, satin black finish on lead and solder. Use Finishing Compound for a glossy black finish. Sold in 8oz bottles.
- **BLACK MAGIC FOR ZINC (#0788)** is Novacan's special formulation made for zinc came. Follow directions on bottle for dark satin black finish. Sold in 8 oz bottles.

PATINA PAL (#07890) – Clean your solder seams with the brass patina buddy with a neutralizing cleaner (see p. E-2) before applying your patina. The brass pad scrubs your solder clean helping to remove any oxidation while leaving behind no residue (unlike steel wool).



SOLDER MAGIC ACTION TIN (#0678) is perfect for tinning vase caps, copper or brass filigrees, copper foil overlays and more. Solder Magic Action Tin is powdered solder suspended in a thin paste flux. Simply stir, apply with flux brush and hit it with your iron. Your piece is instantly tinned and ready to go! Sold in an 8 oz jar.



HELPFUL HINT: NEVER use too much flux! Excess flux trapped in your solder seams will corrode your solder from the inside out, leaving a white, powdery residue. It doesn't matter how often you scrape this corrosion, it always returns because the flux is INSIDE the solder bead. An extra harsh (ie. industrial or sheet metal) flux will give you this problem, no matter how little you use. The answer is to **use your flux as sparingly as possible.** Apply with a Q-tip, if need be! When used properly, the fluxes on this page won't corrode if promptly washed off your work. Use #0773, The Solution, #0695, CJ's Flux and Patina Remover, or #0697 Kwik Clean for removing and neutralizing flux residue.

Cleaners And Polishers

KWIK CLEAN FLUX AND PATINA REMOVER is a non-toxic, biodegradable, non-corrosive cleaner that removes all flux and patina from your glass projects. All residue is quickly neutralized and your piece is left clean and shiny. Use it to remove sticky foil glue from your foiling machines, too. You'll love it!

- 16 oz bottles (#0697)
- 1 gal bottle (#06971)



CJ'S FLUX AND PATINA REMOVER gets rid of the greasy mess and residues from all types of flux. It prevents the oxidation crust on lead and foil which forms as a result of improper cleaning. It also helps to remove patina stains from glass. Use CJ's before you patina your work to allow patina to work properly. Available in:

- 8 oz bottles (#0695)
- 16 oz bottles (#06951)
- 1 gal bottle (#06952)



LIVA STAINED GLASS POLISH is the finishing touch for your stained glass piece. Formulated to be the perfect cleaning, waxing and polishing agent for stained glass work. It polishes your patinated work (gives copper patina the look of a shiny penny) and leaves a wax finish to prevent tarnishing. Available in:

- 12 oz bottle (#0992)
- 1 gal bottle (#09921)



D-LEAD HEAVY METAL HAND SOAP uses a special formula containing abrasives to quickly cut through heavy metal residue to allow it to simply rinse away. Non-toxic and biodegradable, and safe for use with wastewater treatment systems. Rinses clean with no greasy after-feel. Pleasant orange smell. Effective in removing the residue of heavy metals including: Lead, Copper Zinc, Nickel, Cobalt, Cadmium, Aluminum, Mercury and Galium.

- 8 oz bottle (#06990)
- 16 oz bottle (#06991)
- 1 gal bottle (#06992)
- Pump for gallon bottle (#06993)



Misc Chemicals

GRINDER COOLANT (#0159) makes your diamond grinding bits last longer. Your grinding bit will run cooler, last longer, grind more smoothly. Add a cap full when you change the water. NONTOXIC. 8 oz. plastic bottle. Really works!



GLUE CHIPPING GLUE (#0784) lets you make your own glue chip glass. You can chip selected areas on your sheet for special effects. 1 lb. bag.



SAL AMMONIAC BLOCK (#0679) is used to clean and tin your iron tip. Rub a drop of solder on top of the block with a hot iron to get a bright, shiny silver tip. 1/2 lb block.



CUTTER OIL keeps cutters well lubricated and facilitates scoring. Novacan specifically developed this cutter oil for the stained glass industry. It is nontoxic, noncorrosive and nonflammable. Cleans up with dish detergent or The Solution. This product is universally used in oil feed cutters.

- 8 oz. bottles (#0778)
- 2 oz. bottles (#07782)



Aerosols

Unique aerosol products for use in the Stained Glass field. These products contain NO ozone depleting chemicals.

MIRROR EDGE SEALANT (#0686) protects the cut mirror edge from blackening. This clear spray resists moisture, chemical fumes, salt air and cleaning compounds. Just spray on edge, allow to dry and foil or lead into place. 10.5 fl oz.

HELPFUL HINT: Silver Protector (#0790) is for anyone doing a project using mirror. The corrosion may not show up for several days or weeks after the project is done. Save the time and trouble of doing a project over again by using Silver Protector the first time! For spray on convenience, try **Mirror Edge Sealant (#0686)**.



Armour Etch

Armour Products has a complete line of etching products including the popular Armour Etch creme, instructional books and more!

ARMOUR ETCH applies easily and works in 1 minute. The ammonium bifluoride formula is easy to work with and very safe when used according to directions. Spoon on with a plastic spoon, and wash off. Gives even, clean results.

- **ARMOUR ETCH, 3 oz (#0200)** is the perfect size to start out with. There's plenty of etching cream to do several projects.
- **ARMOUR ETCH, 10 oz (#0199)** gives you an economical quantity to buy.
- **ARMOUR ETCH, 22 oz (#0198)** For heavy users!



Glazing Cement

Windows made with lead, zinc, brass or copper comes need to be "cemented" with putty or cement to be strengthened and weatherproofed.

MIRACLE MUDD is an easy mixing two part cement mix. You mix what you need for the project at hand. No waste. No worry about shelf life. Add the liquid to the powder, stir to a creamy consistency and use! Clean up with whiting. Sets up in 24 hours. Try Miracle Mudd and you'll never use the premixed stuff again. Order:

- **BLACK**
 - Small kit (#06690) or
 - Large kit (#06692)
- **NATURAL (also known as gray)**
 - Small kit (#06691) or
 - Large kit (#06693)



HELPFUL HINT: A SMALL container of Miracle Mudd will cement a window approximately 3-4 sq ft. The LARGE containers will completely cement approximately 12-15 sq ft. Your coverage will vary depending on lead to glass ratio and width/height of your came.

MIRACLE MUDD EXTRA INGREDIENTS are also available. If you like your Mudd thick and stiff or possibly your preference are thin and runny. No problem, we also have the ingredients available separately.

- **BLACK POWDER ONLY**
 - Small Black Powder (#06694)
 - Large Black Powder (#06696)
- **NATURAL GRAY POWDER ONLY**
 - Small Natural Powder (#06695)
 - Large Natural Powder (#06697)
- **LIQUID ONLY**
 - Small Liquid (#06698)
 - Large Liquid (#06699)



PZAZ LUSTER BRUSHES will add *pzaz* to your finished project with a high, lustrous shine. This is the natural bristle brush that you will see Tommy G. use in his how-to DVD's. The Pzaz Brush will clean the glass and polish the lead and patinated copper foil in seconds. Use this brush with any lightweight hand held power drill (battery or corded). Hold brush at a slight angle and run it back and forth over a small area. A 12" x 12" section should take about 30 seconds to polish. Saves hours of work vs. your standard cement brushes. Complete instructions are included.

- **COMPLETE BRUSH AND HUB ASSEMBLY (#1753)** with quick and easy instructions on use, as shown at right in photo below
- **REPLACEMENT BRUSH (#1754)** as shown on left in photo below



GLASS PRO STAINED GLASS PUTTY was developed as the best combination of ease of use and suitability to purpose. Sold in plastic tubs, this product has the consistency similar to glazing putty. Black color.



- [1] REMOVE A HANDFUL FROM THE TUB and roll it around in your hands to warm it up and make it pliable.
- [2] USING YOUR THUMB force the putty between the glass and the came.
- [3] TRIM EXCESS with a pointed dowel or fid. Wad up the extra stained glass putty and return to container.
- [4] SPRINKLE PANEL WITH WHITING or sawdust
- [5] SCRUB WITH NATURAL BRISTLE BRUSH to complete cleaning the excess putty and to burnish came to a smooth, darkened finish
- [6] LET SET OVERNIGHT then flip and do the other side.
- [7] SEAL CONTAINER a piece of plastic wrap pressed over the top surface of the putty will keep it soft for the next time.

Three sizes available:

- **1/2 PINT, ABOUT 1 lb (#06680)** - sufficient to do about 2-4 sq ft of leaded glass
- **1 QUART, ABOUT 4 lb (#06681)** - for heavy duty users. Will do about 10-15 sq ft
- **1 GALLON, ABOUT 16 lb (#06682)** - This is the "studio size" and should do about 40-50 square feet of leaded window.

HELPFUL HINT: Your coverage will vary depending on lead to glass ratio and width/height of your came.

CEMENT BRUSHES are used to push cement under the leaf of the came. Comes with natural tampico bristles; available in two sizes:

- **SMALL CEMENTING BRUSH (#0670)** - 1¼ x 4½ block with ½" long bristles
- **LARGE CEMENTING BRUSH (#0671)** - 2¼ x 7¼ block with 1" long bristles



HELPFUL HINT: Don't get stuck buying a brush with plastic or nylon bristles that will react with the solvents in your glazing compound causing the bristles to soften, fall out, or even melt.

WHITING cleans flux and cement residue from came work. Sprinkle this white powder on your panel after picking off excess cement. Swirl around with a scrub brush, and sweep up the excess.



- **1 pound (#0785)**
- **5 pound (#0786)**

HORSESHOE NAILS are used for holding work in place. Flat edges go easy on the glass. 2" size with large head. Comes as:

- **BAG OF 15 (#0883)**
- **BAG OF 100 (#0884).**



LEAD & GLASS STOP BLOCKS (#08849) replace the messy scraps of lead and glass you've had to use to hold glass and lead in place when assembling leaded windows. No more chipping glass edges. No more deformed lead profiles. No more wasting lead. Simple, easy to use, and gives your workboard a polished professional look. Package of 25 - horseshoe nails NOT included.

