



Installation and Care Manual

For Epoxy Resin Worksurfaces, Sinks & Outlets

Preparation: *A brief word before you begin*

This information is intended to help you do your best work with reduced labor.

Once the tops have reached the job site please handle them with great care. Dropping or dragging could result in irreparable damage.

Epoxy resin worksurfaces should be installed in the final stages of construction. This will reduce the risk of damage by tradesmen using the countertops as workbenches or scaffolding. Be sure to store all worksurfaces and sinks according to the guidelines provided with each shipment.

The materials you will need

To make your installation go as smoothly as possible be sure you have the necessary materials (listed right) before you begin

- ◇ Safety glasses
- ◇ Putty knives
- ◇ A level
- ◇ 4 or more C-clamps
- ◇ 2 inch wide masking tape
- ◇ 2-part [A & B] epoxy adhesive
- ◇ 4 or more equal size applicator sticks
- ◇ Lacquer thinner
- ◇ Silicone sealant (lab grade)
- ◇ Several pieces of hardwood blocking
- ◇ Tapered shims made of wood or other suitable material
- ◇ Several pieces of cardboard in varying sizes
- ◇ 2 or 3 pieces of lumber at least 1-1/2 times the width of the cabinet
- ◇ Scotchbrite® Light Duty white finishing pads
- ◇ Distilled water
- ◇ Several clean rags

Leveling the cabinets

To avoid problems later in the installation, take the time to check all cabinet runs to insure that they are level.

“Dry-checking” the worksurfaces, curbs and sinks

Study the worksurface layout included with your shipment to properly place all the pieces. Each piece is labeled as marked in the layout.

Caution: *Epoxy resin worksurfaces are heavy. Always have assistance when moving and placing them and always use proper lifting techniques.*

- ◇ Place the worksurface pieces on the cabinets and slide them into place.

Note: *Great care should be taken to prevent anything abrasive from coming into contact with worksurfaces.*

- ◇ When installing worksurfaces with undermount sinks, line the sinks up below the proper cutouts with an even overhang on all sides.
- ◇ Put the curbs in place and make sure they are the correct length.

Note: *If you find any damaged, incorrect fitting or missing pieces, notify LOC immediately. Inspect each section of top before applying adhesive. LOC will not be responsible for removal of defective tops.*

- ◇ After you have checked the cabinets and inspected the sinks and worksurfaces you are ready to begin .

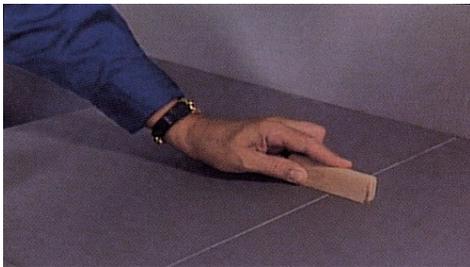
Mixing epoxy adhesive

The 2-part epoxy adhesive is the most important material you will use to install epoxy resin worksurfaces. It is vital that you mix it properly

- ◇ Always use a separate stick to scoop each part of the epoxy adhesive and use the same stick each time to avoid “mixing” and contaminating the unused portion.
- ◇ Mix on a clean piece of cardboard only what you need for the number of pieces at hand.
- ◇ Mix the two parts of epoxy thoroughly
- ◇ Spread the mixed epoxy adhesive about 1/4” thick on the cardboard to prevent it from generating its own heat and drying too quickly.

Installing Worksurfaces

Setting the worktops



- ◇ Using a straight edge or level, be sure that the two worksurface pieces form a flat surface. Use shims if necessary to adjust the height of either piece.

- ◇ Lift and prop up the first two worksurface pieces.
- ◇ Place small dabs of epoxy adhesive at 24” [610 mm] intervals along the front and back edges of the cabinet top below the first worksurface piece, remove the wood prop and lower the worksurface into place.
- ◇ Put a few dabs of epoxy adhesive along the lower edge of the first worksurface piece where the next worksurface piece will abut.
- ◇ Repeat the above steps for the second worksurface piece and carefully lower it into place leaving a 1/8” [3 mm] to 1/16” [1.5 mm] seam between pieces.
- ◇ Repeat this process for the remaining worksurface pieces in each run.

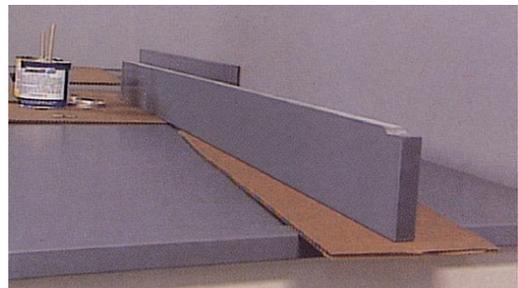
Filling the seams

- ◇ Apply a length of 2” [50 mm] wide masking tape to each side of the seam directly on the edge of the joint.
- ◇ Using a putty knife, press the epoxy adhesive down and into the seam. Using too much adhesive is better than not using enough.
- ◇ Beginning at the back of the worksurface, drag the putty knife toward you holding it at a 45° angle.
- ◇ Scrape the excess epoxy adhesive off of the masking tape approximately 1/16” [1.5 mm] from the center of the seam on both sides.
- ◇ Drag a clean putty knife across the masking tape one more time and then remove the tape.
- ◇ Use lacquer thinner on a clean rag to smooth out the epoxy adhesive for finished seams.
- ◇ Use a separate clean (damp or dry) rag to wipe away any excess adhesive.

Note: *Never attempt to sand seams or scratches.*

- ◇ Allow adhesive to harden overnight (at +77°).

Installing the Curbs



- ◇ Cover the worksurfaces with cardboard to protect the top surfaces from scratching. Place the curbs upside down on the cardboard.
- ◇ Fill a putty knife with epoxy adhesive and use a smooth stroking motion to run a bead along the bottom of the curb and along the edge that abuts another curb.
- ◇ Set the curbs in their proper location and press in place.

Note: If you have uneven walls you will need to shim the curbs to have an even front. If you have a bow in the wall you can eliminate the problem with a prop and clamp

- ◇ Wipe off excess epoxy adhesive at the bottom of the curbs with a rag wet with lacquer thinner.
- ◇ To insure that the worksurfaces and curbs will stay in place, block and clamp the seams and allow the adhesive to harden overnight (at +77°).

Installing Sinks

Installing a Dropln® Sink



- ◇ Using a rag wet with lacquer thinner, clean the rim of the Dropln Sink and the area around and inside the rabbeted worksurface cutout.
- ◇ Lower the sink into the cutout and inspect the fit.
- ◇ Remove the sink and apply epoxy adhesive around the surface of the rabbeted cutout.
- ◇ Carefully lower the sink back into the cutout.
- ◇ Gently press the sink rim until it is level with the bottom of the 1/8" [3 mm] cutout bevel.
- ◇ Use a wet rag with lacquer thinner to wipe away excess adhesive.
- ◇ Allow epoxy adhesive to harden overnight (at +77°).
- ◇ After the dabs of epoxy adhesive harden, fill the seam with epoxy adhesive.
- ◇ Using a rag wet with lacquer thinner, smooth off the seam.
- ◇ Use a separate clean (damp or dry) rag to wipe away any excess adhesive.
- ◇ Allow epoxy adhesive to harden overnight (at +77°).

Installing a cupsink

- ◇ Clean the rim of the Cupsink and the area around and inside the worksurface or fume hood base cutout with lacquer thinner.

Note: If installing Polypropylene Cupsinks, scuff the contact surfaces under the sink rim to increase adhesion.

- ◇ Position the blocking mechanism that will be used to hold the cupsink in place.

Note: Create a blocking mechanism by using wire to connect a large wood block and a smaller wood block through the cupsink outlet. Twist the smaller block to achieve enough tension to hold the cupsink level with the worksurface top when in place.

- ◇ Apply a dab of epoxy adhesive on all four sides of the cutout in the worksurface.
- ◇ Position the cupsink directly over the worksurface cutout and lower it into position.
- ◇ Center the sink (the blocks will hold it level) and allow the epoxy adhesive to harden overnight (at +77°).
- ◇ After the epoxy adhesive has hardened, remove the support blocks and carefully fill in the sealant seam with adhesive.
- ◇ Using a wet rag with lacquer thinner, smooth off the seam. Use a separate clean (damp or dry) rag to wipe away any excess adhesive and allow to harden overnight.

Installing Undermount Sinks

Setting an undermount sink

Note: Check to see that the sink fits properly on the sink supports provided by your cabinet supplier.

- ◇ Using a level, check to make sure the top of the undermount sink is flush with the top edge of the cabinet.
- ◇ Adjust sink supports if necessary from under the sink.
- ◇ After the sink is positioned be careful not to move it as you set the worksurface.
- ◇ Wipe the rim of the sink and the contact points on the bottom of the worksurface with a wet rag soaked with lacquer thinner.
- ◇ Apply a small bead of silicone sealant to the top edge of the sink.
- ◇ Apply a dab of epoxy adhesive at each corner of the sink cabinet.
- ◇ Carefully lower the sink worksurface into place.
- ◇ Follow the steps outlined on pages 2 and 3 for installing worksurfaces, filling the seams and installing curbs.

Installing Sink Outlets

Installing an epoxy sink outlet

- ◇ Clean both the outlet and the recessed hole in the sink with lacquer thinner.
- ◇ Apply silicone or epoxy adhesive to the outlet in a 1/4" [6 mm] bead around the bottom edge.
- ◇ Insert the outlet directly into the recessed hole in the sink.
- ◇ Give the outlet a 1/4 turn after you make contact.
- ◇ Be sure the outlet is centered in the hole.
- ◇ From under the sink, thread the retaining nut all the way up and carefully hand tighten until the upper outlet flange is flush with the sink basin.

Note: Do not use tools or over-tighten the plastic retaining nut.

- ◇ Wipe off the excess epoxy adhesive in the sink. Using a rag wet with lacquer thinner, smooth out the edges of the sealant seam.
- ◇ Clean excess sealant with a clean rag (wet or dry).

Installing a polypropylene sink outlet

- ◇ Scuff the contact surfaces under the outlet flange to increase adhesion.
- ◇ Follow the procedure shown above using silicone or epoxy resin adhesive.

Care and Maintenance

of Epoxy Resin Laboratory Work Surfaces

Epoxy Resin work surfaces are durable, non-porous, man-made stone products that are relatively unaffected by most chemicals, heat, flame and moisture. These super-tough surfaces' physical properties are seldom compromised; however, they do require periodic care and maintenance throughout the life of the lab or school room to keep the surfaces looking like new. Whether you are a facility owner, manager, custodian or lab user, it is helpful to know how to maintain the good appearance of your lab's work surfaces.



Chemical Resistant • Non Absorbant • Self Extinguishing

Regular Care Procedures

LOC recommends instituting a regimen of monthly or quarterly inspections of all surfaces, sinks and joints, plus daily or weekly cleanings to maintain your epoxy resin's original finish and to help ensure a safe, uncontaminated working environment. The following list contains items you may wish to have on-hand for regular cleaning and to handle most problems that may occur.

- ◇ Acetone or Paint Thinner
- ◇ Crystal Simple Green®
- ◇ White Scotch Brite® Pads (always use moist or wet)
- ◇ Finish Oil (Mineral Oil)
- ◇ Murphy's Oil
- ◇ Clean Rags or Sponges
- ◇ Chamois Cloth
- ◇ Mild Soap or Household Cleaner
- ◇ Two-part Smooth-On® Epoxy Grout

Note: *Never use wax or polish containing wax on epoxy resin work surfaces or sinks. Also, never use abrasive pads, powders or liquids (such as Soft Scrub) as dulling of the surface will result.*

Work Surface Care

Promptly wipe up all spills. Acetone should be used (where allowed) to thoroughly clean surfaces. Apply and wipe away with a paper towel or a clean rag. As an alternative, Crystal Simple Green® (or comparable household cleaning product) can be used to clean surfaces. An occasional application of finish oil or Murphy's Oil® can restore the luster to the surface, but remember; too much oil can cloud the surface.

- ◇ Apply oil by pouring the minimum amount of oil necessary to cover the surface area onto a clean rag.
- ◇ Thoroughly rub in oil using a circular motion.
- ◇ Wipe away excess oil with a clean rag.
- ◇ A chamois can be used to buff the surface to the desired sheen.

Epoxy Resin Sink Care

Laboratory sink areas usually present the greatest cleaning and maintenance challenges. Sinks are a collection point for dirty and wet lab ware which leaves liquids, residue and chemicals on the surface for extended periods of time. Sink areas will require a more thorough cleaning regimen than dry bench tops as well as more frequent inspections. Sink inspections should include all sink surfaces and joints in sink the area including the outlet joint and the sink rim joint above and below the work surface. Cracked or pitted joints should be filled immediately with two-part Smooth-On® epoxy grout to prevent leaking and damage to the supporting casework.

If there is a more serious cleaning issue it is important to identify the problem before trying to remedy it.

Marring

Most metals are softer than the work surface and can leave a mar if pulled across the top. Marring is matter left on the surface that appears as a line and remains smooth to the touch. Marring can almost always be removed with acetone or with mild cleaning products and elbow grease.

Always try the softest cloth and the weakest solution (soap and water) first.

If marring persists, progress to a white Light Duty Scotchbrite® Pad moistened with stronger solutions. Never use a dry Scotchbrite pad or a more abrasive pad and always apply the minimum amount of pressure required on the surface to remove the mar.

Scratches

Harder metals, abrasives and heavy or sharp items can dig into the surface resulting in a scratch. Scratches usually appear as a lighter shade of the surface and will be rough to the touch. Scratches in epoxy resin are permanent but will not affect work surface performance.

An aesthetic remedy for scratches is coloring in the void with a permanent marker. This option will never perfectly match the color and gloss of the surrounding surface.

Stained Surfaces

Staining can be caused by chemicals left to dry on the surface. Chemical stains usually lighten or bleach the surface but can also roughen and even crack the top. Like scratches, chemical stains are permanent and, if they have caused too much damage, you may need to replace of the top.

Special Care Issues

Epoxy resin products (especially glued in sinks) are subject to thermal shock and are not warranted against damage from liquid nitrogen or dry ice. Possible effects caused by the improper disposal of these materials include joint failure and/or sink fractures.

By following these simple guidelines your laboratory work surfaces will look good for the life of the lab. Please take time to share this document with your lab workers and cleaning personnel and institute a maintenance program to help ensure the safety and beauty of your lab. If you have further questions, please contact LOC Scientific, Inc.