

# **Epoxy Products L.L.C.**

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Customer Service

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## **Receiving, Installation & Care Instructions**

## **RECEIVING, INSTALLATION & CARE INSTRUCTIONS**

Thank you for purchasing our epoxy resin products. In order to insure you receive many years of service from your investment, we are providing these Receiving, Installation and Care Instructions. It is important that you read and familiarize yourself with the steps and procedures outlined in these instructions to avoid damage while receiving/handling the products, properly installing the products, and caring for the products in the coming years.

Should you have any questions concerning the receiving, installation, and/or care of your resin products, feel free to call our Customer Service Department at (870) 425-4321.

### **RECEIVING PRODUCTS**

Products are typically shipped via common carrier. All products are packaged for protection during transit. Upon receipt of a shipment, the following steps should be followed:

1. Inspect all pieces for damage caused during shipment. If packaging material is damaged, be sure to immediately inspect the products inside the carton and/or crate. Any damage must be noted on the carrier's shipping paperwork and initialed by the driver before departure.
2. Compare the number of pieces received with the packing list provided. Any discrepancies must be noted on the carrier's shipping paperwork and initialed by the driver prior to departure.
3. Resin products are awkward and cumbersome to handle due to their weight and size. They are susceptible to breakage if dropped. Leaning resin counter tops against a sheet rock wall, finished or otherwise, can leave permanent indentations and should be avoided.

**WARNING:** Resin products are very heavy! Weights for typical pieces can easily exceed 50 lbs. *Adequate manpower is required to unload and handle resin products to avoid personal injury and property damage.*

4. Once the products are unloaded, care should be used in distributing materials to the rooms/areas installation will take place. Damage to the products or damage to the interior finishes of the building can occur if care during distribution is not exercised.
5. After distribution, products should be checked for conformance with your order using paperwork provided with the shipment. ***Any discrepancy involving products as compared to your original order must be reported within 7 calendar days after receipt of shipment.*** Discrepancies should be reported via fax (870-425-0820) to Epoxyn on the enclosed "Shortage & Breakage Form." Please be sure to completely fill out the form so as to expedite the replacement of any product.
6. If concealed shipping damage is discovered during the unpacking process, contact the carrier immediately to report the damage and request an inspection. Concealed damage must be

reported to the carrier within 14 calendar days after receipt of shipment if the carrier is to be held responsible for replacement product. Do not dispose of any packing material until after the carrier performs an inspection and authorizes its disposal.

7. If products are to be stored for an extended period of time (longer than 30 days), special care must be taken to prevent damage. Counter tops should be stored flat, fully supported along the entire length and width of the counter top. Epoxy resin products should not be stored outside without cover. This will prevent warpage or twisting from occurring. Resin products should be stored in a conditioned facility.

### **INSTALLATION OF PRODUCTS**

Installing epoxy resin products does not require any special tools or skills beyond what is normally expected of experienced maintenance personnel. Tools and supplies (not included) typically require:

- Tape Measure
- 4' Level
- Putty Knife
- Assorted Sizes of C-Clamps
- Metal Shims
- Masking Tape
- Scott's Liquid Gold Household Cleaner or Similar Product
- Clean Cloth Rags
- Rubbing Alcohol

Installation of sinks and counter tops requires the use of adhesives. Some installers prefer to use silicon adhesive, others prefer to use two-part epoxy cement. Silicon provides flexibility for removal and replacement of sinks and counter tops at a later date, but is not as resistant as epoxy cement to reagents and chemicals typically found in the laboratory environment. Silicon can also require additional time to install counter tops since it does not have the adhesive properties of epoxy cement and extra care must be taken when finishing joints to obtain an acceptable result. Also, silicon does not visually match the resin counter tops, sometimes resulting in a less than acceptable installation.

For this reason, Epoxyn Products L.L.C. recommends the use of, and only provides, epoxy cement for use when installing counter tops and sinks, except in those instances where the end-user requires flexibility and movement on a frequent basis. Use of epoxy cement will provide for the best possible appearance and longevity, resulting in a quality installation.

*Installation should not occur if the building temperature does not remain above 60° F. during the entire period of installation and cement curing.*

## **I. Cupsink Installation**

(Oval and Rectangular Cupsinks are installed in the same fashion)

Cupsinks are installed from the top of the counter top, cemented in place in a permanent location.

1. Place the cupsink in the hole cut at the factory to insure a proper fit.
2. Remove the cupsink. Using clean cloth and alcohol, wipe cut-out in counter top and lip of cupsink to remove any excess fabrication dust/oil.
3. Mix two-part epoxy cement carefully following instructions on container.
4. Carefully apply cement on bottom edges of cupsink and in counter top cut-out. Press cupsink into cut-out until lip of sink is flush with counter top surface. Shim cupsink to prevent movement prior to cement fully curing. Wipe off any excess cement immediately using a clean cloth dampened with clean water. ***Excess cement and residue must be removed prior to curing.***

**WARNING:** The cement is a permanent adhesive. Avoid getting excess cement on adjacent counter tops and building surfaces since it cannot be removed once cured.

5. Leave cement cure overnight before attaching any plumbing to avoid misalignment of the cupsink.
6. If cement around cupsink shrinks after curing for 24-hours, grout seam until smooth, being sure to remove any excess cement as noted in Step 4 above.

## **II. Tub Sink Installation:**

Tub sinks are installed from below the counter top, usually within a cabinet or under an apron of some type.

1. Following cabinet manufacturer's instructions, install tub sink "cradle" in cabinet or apron, making sure cradle is extended to the lowest possible position.
2. Using a clean cloth rag and alcohol, wipe the top rim of the tub sink and bottom surface of the counter top at the cut-out to remove any excess fabrication dust/oil.
3. Mix the two-part epoxy cement carefully following the instructions on the container. Apply a bead of cement along the entire top rim of the tub sink.
4. Slide the tub sink onto the sink cradle in the cabinet or under the apron.

- Adjust the cradle until the tub sink is pressed tightly against the underneath of the counter top.

**NOTE:** Avoid over tightening the sink cradle since excessive pressure will cause the counter top to push up and possibly cause damage to the cabinet, counter top and/or tub sink.

- Looking through the sink cut-out in the counter top, wipe any excess cement from the interior walls of the tub sink using a clean cloth rag dampened with clean water. Excess cement must be removed prior to it curing.

**WARNING:** The cement is a permanent adhesive. Avoid getting excess cement on adjacent surfaces or allowing to dry on tub sink since it cannot be removed once cured.

- Sink plugs (sometimes referred to as “strainers”) are installed in the same fashion as a cupsink. Refer to instructions for Cupsink Installation to complete this task.

### **III. Counter Top Installation:**

Proper installation of counter tops is dependent on the quality installation of cabinetry which support the resin products. Prior to installing counter tops, an inspection of the cabinetry is required. In order to insure a quality installation of counter tops, the following should be reviewed:

- Be sure the cabinetry is installed plumb and level. If it is not, cabinetry must be corrected.
- Inspect the top rails of the cabinetry to be sure the alignment between units is smooth. If misalignment is detected, cabinetry must be corrected.
- Inspect the top rails of the cabinetry to be sure there are no fasteners extending above the top surface of the cabinets. If fasteners are too high, rework cabinets to eliminate the problem.
- Clean top of cabinetry to remove any dust/dirt to allow for proper adhesion of adhesives during counter top installation.
- If plumbing or electrical service runs have been roughed-in prior to the installation of counter tops, check to be sure piping and/or conduit does not interfere with the bottom side of counter tops and/or sinks. If interference is detected, have piping and/or conduit moved.

Once this inspection is complete, counter tops should be set on the cabinetry in their correct locations to check for proper fit **prior to cementing anything in place.**

- Starting with the corner pieces of counter top (if applicable), begin laying complete assemblies of counter tops on top of the cabinetry as shown on drawings (provided by

others).

- Arrange counter tops to allow for a joint approximately 1/16" – 1/8" wide.
- Counter tops should overhang the cabinets in front and at the end of an assembly in accordance with installation drawings provided by others.
- Check to be sure fixture holes and sink cut-outs match the requirements of the assembly.
- Integral backsplash tops should be set by aligning the backsplash to be even.

**NOTE:** It is important that the proper pieces of counter tops be placed in their correct location to insure adequate joint width and acceptable installation.

2. After dry-fitting an assembly, remove pieces of counter tops and carefully place to the side.
3. Starting with the corner of a counter top assembly, wipe the edges to be joined to adjacent pieces of counter top with a clean cloth rag dampened with alcohol to remove any excess fabrication dust/oil.
4. Wipe the bottom of the pieces of counter top with a clean cloth rag dampened with clean water to remove any dust or dirt that would prevent proper adhesion of cement.
5. Apply masking tape to the top surface of the counter top immediately adjacent to the joint.
6. Mix the two-part epoxy cement following the instruction label on the container.
7. Tip the counter top piece up from the front. Using a putty knife, apply a small dab of cement over 12" – 24" on the top rail of the cabinet, then set the piece back down aligned in its proper location.
8. Apply a liberal amount of cement to both edges of counter top pieces to be joined prior to pressing them together. Cement should be applied evenly and consistently along the entire joint.
9. Press the two pieces of counter top together. Work the pieces back and forth to the desired joint width and to insure proper adhesion of cement to both pieces. Make sure the two edges of the joint are aligned with each other, shim and clamp as necessary to obtain a smooth, level working surface upon completion.

**HINT:** If conditions permit, carefully use bar clamps to draw two pieces together.

10. Once the proper joint width is achieved, clamp the counter top pieces in place using C-

Clamps.

11. Using a putty knife, remove excess amounts of cement by running the knife along the entire length of the joint.
12. Cement residue must be removed from the counter top by wiping the surface of the counter top with a cloth rag dampened with clean water. ***Excess cement and residue must be removed before it cures.***

**WARNING:** Cement is a permanent adhesive. Avoid getting cement on any other surfaces or materials since it will be impossible to remove once cured.

**NOTE:** Water used to wipe off cement residue must remain clean. After wiping several joints, fresh water must be used to avoid smearing cement on surface of counter tops and causing permanent stains.

13. Allow 10-15 minutes for the cement to initially set-up, wipe joints with clean water, and remove masking tape. Lightly wipe joint again to insure all excess cement and residue have been removed.

*Installation of remaining counter top pieces should follow in accordance with the steps listed above.*

**NOTE:** Curing time for epoxy cement is approximately 24-hours. Counter top pieces should remain clamped and undisturbed during this period of time to insure proper adhesion.

If your order included applied backsplashes (curbs) the following process should be followed:

- Dry-Fit backsplash to insure proper fit.
- Wipe bottom edge of backsplash and surface of counter top with a cloth rag dampened with alcohol to remove any excess fabrication dust/oil.
- Mix two-part epoxy cement following instructions on container.
- Apply cement to bottom edge of backsplash using a putty knife, making sure cement is evenly applied along the entire length.
- Press backsplash into place, making sure it is straight and level.
- Using a putty knife, remove excess cement.
- Allow cement to initially set for 10 – 15 minutes, then lightly wipe joint with cloth rag

dampened with clean water. *Excess cement and residue must be removed prior to curing.*

If additional fixture holes or sinks need to be added after receiving shipment of Epoxyn products, the following steps should be followed.

#### IV. Fixture Holes:

1. Determine the proper size hole for the fixture by referring to the manufacturer's literature or contacting a local distributor.
2. Mark the center of the hole on the counter top in pencil. If the counter top is already installed, be sure to check underneath and confirm clear space for piping and fixture installation.

**WARNING:** Drilling resin counter tops will cause a very fine black dust to become airborne. Be sure to utilize adequate personal protective equipment as well as being sure to cover any other equipment or finished surfaces in the room. Whenever possible, drill resin materials outside the building in a well ventilated area.

3. Using a diamond or carbide tipped drill bit or hole saw, drill the required hole.
4. Lightly sand or file any rough or sharp edges after drilling to complete process.

#### V. Sink Cut-Outs:

Cupsink cut-outs and drop-in sink cut-outs are very difficult to do in the field. *Only trained, experienced resin installers should attempt to field cut a cupsink cut-out.*

Undermount tub sink cut-outs are performed as follows:

1. Measure the inside dimensions of the sink to be installed.
2. Subtract one inch from the inside dimensions of the sink, mark the hole on the counter top in pencil.
3. Using a diamond tipped or carbide hole saw 1/2" less than the radius of the tub sink, drill the four corners of the sink cut-out.

**WARNING:** Drilling/Cutting resin counter tops will cause a very fine black dust to become airborne. Be sure to utilize adequate personal protective equipment as well as being sure to cover any other equipment or finished surfaces in the room. Whenever possible, drill/cut resin materials outside the building in a well ventilated area.

4. Using a diamond tipped or carborundum circular saw blade, cut along the straight sections of the sink cut-out. Make 3 – 4 shallow cuts with each pass.
5. Lightly sand or file any rough or sharp edges to complete process.
6. Freshly cut edges must be lightly sanded and Epoxyn Edge Dressing must be applied. The edge dressing comes prepackaged in a kit.

## **VI. Field Fabrication:**

If you need to cut counter tops to fit a specific field condition, the following process should be followed:

1. Transfer the necessary measurements to the counter top to be cut.
2. Always use a straight edge when cutting a counter top to insure a proper joint during installation.
3. Always cut the side of the counter top that will be joined with another piece of counter top, or that will abut with a wall whenever possible.
4. Using a diamond tipped or carborundum circular saw blade, make 3 –4 passes using a shallow cut.
5. Once cut, be sure to wipe off the edge with a clean cloth rag dampened with alcohol to remove dust/oil.

## **VII. Installation Completion:**

Once installation of all counter tops is complete, and cement is allowed to cure for 24 hours, the following should be performed:

- Remove all clamps, shims, etc.
- Using clean water and a clean cloth rag, wipe off any construction dust/dirt.
- Inspect joints to see if the cement shrank and/or if voids in cement are detectable. If so, apply masking tape to counter top surface and grout joint using epoxy cement. Be sure to clean counter tops after using cement as noted throughout these instructions.
- If additional construction activity is still taking place around the counter tops, it is recommended that they be covered with corrugated cardboard. Cardboard should then be covered with 3 – 5 mil plastic and taped in place to prevent any damage to counter tops.

**NOTE:** Be sure to warn other contractors/trades of the potential damage that can

be caused if they use counter tops as work-benches or scaffolding to perform their work.

- Just prior to occupancy, after all construction activity has been completed, wipe the counter tops with a clean cloth rag dampened with Scott's Liquid Gold, Old English Lemon Oil, or similar commercially available product. This will provide a dark, consistent sheen to the resin counter tops.

**NOTE:** Do not over apply these cleaners since they will leave an oily build up. If too much is applied, immediately wipe off excess.

### **VIII. CARE OF EPOXYN PRODUCTS RESIN COUNTER TOPS AND SINKS:**

Epoxy resin products are nearly chemically inert, thus resisting stains and damage from a wide variety of reagents and chemicals if properly installed and cared for. However, an end-user must be aware that there are certain reagents and/or chemicals that will stain or otherwise damage resin. *Caution should be used when using any type of acid such as nitric acid, sulfuric acid, chromic acid, hydrofluoric acid, etc.* Concentrated amounts of these acids, if spilled on resin counter tops or in resin sinks, will cause stains or permanent etching of the resin surface. Any spills must be immediately cleaned to avoid damage to your resin products, as well as avoid any danger to your workers.

**NOTE:** Epoxy resin products are the material of choice for the laboratory environment but can be sensitive to rapid changes of extreme hot and extreme cold temperatures. Improper use of liquid nitrogen or dry ice may cause cracking and potential sink failure. Product failures resulting from the use of liquid nitrogen or dry ice are not covered under the warranty.

Epoxy Products L.L.C. recommends the following process/intervals for basic care and housekeeping of counter tops and sinks:

1. In normal laboratory applications, counter tops and sinks should be wiped clean at the end of every day if possible. At a minimum, a weekly cleaning regiment must be implemented to insure the lasting beauty and durability of your resin products.
- To clean counter tops and sinks to remove dirt, dust and chemical residues, simply use a sponge, clean water and a sudsing cleanser (i.e.: Soft Scrub). Lightly wipe the surfaces until the dirt and residue is removed.

**WARNING:** Do not use an abrasive cleaner or abrasive sponge/brush so that the surface of the resin is not damaged.

2. Sinks should be inspected on a monthly basis to insure the seal between the sink and counter top, and the seal between tub sink and sink plug (sink strainer), is still good. Specifically, look for voids or cracks in the cement at seams. If cracks or voids are detected, repair should

occur immediately.

3. Counter tops should be inspected every six months. Review of current housekeeping practices should be conducted, especially in any area that staining occurs on a frequent basis. Inspection of the counter tops must include a review of the joints to insure they are still sealed and solid. Look specifically for any cracks or voids in the cement at joints. If cracks or voids are detected, repair should occur immediately.

### **Repairing Resin Counter Tops**

Although the resin materials used to form counter tops are very hard and durable, they can be damaged if care is not taken. Should damage be identified during normal daily operations or through routine inspections as recommended, the following processes should be used to make repairs.

#### **Scratches**

Counter tops can be scratched if heavy items/equipment are slid across their surface, sharp objects are run along the surface such as cutting, or something is dropped on the counter top. Scratches can be categorized in two types: 1) Surface Scratches and 2) Deep Scratches.

Surface scratches can be easily repaired by following these steps:

1. Many light surface abrasions can be handled by simply wiping the counter tops with a clean cloth dampened with Scott's Liquid Gold, Old English Lemon Oil, or other similar commercially available product.
2. If surface abrasions are not removed using this process, the deeper scratches will need to be addressed individually as follows:
  - Using 660 grit or finer wet/dry sand paper, hand sand the area of the scratch parallel to the scratch using light, uniform passes until the depth of the scratch is reached.
  - Using a 50/50 mixture of Soft Scrub and commercial cleanser on a clean cloth rag, use a circular motion and clean/buff the sanded area.
  - Wipe the area with clean water to remove all grit and cleaners.
  - Using Epoxyn Edge Dressing Kit, apply a light coating to refurbish the color and luster of the resin counter top.
  - Wipe the entire counter top with a light coating of Scott's Liquid Gold, Old English lemon Oil, or other similar commercially available product.

Should the counter top sustain minor chips at the edges or corners, the following steps should be

followed:

1. Using a clean cloth rag dampened with alcohol, clean the area of the chip and surrounding counter top.
2. Mix two-part epoxy cement in accordance with instructions on container.
3. Using a putty knife, apply cement to chip working into the crevice and shaping to match contour of edge/corner.
4. Remove excess cement using a putty knife, but allow cement to remain slightly raised above surface of counter top.

**WARNING:** Cement is a permanent adhesive. Avoid getting cement on any other surfaces or materials since it will be impossible to remove once cured.

5. Allow cement to cure for a 24 – hour period.
6. Using an orbital sander with 660 grit or finer wet/dry sand paper, sand the repair area until the patch is flush with the surface of the counter top.
7. Using a 50/50 mixture of Soft Scrub and a commercial cleanser on a clean cloth rag, apply the mixture in a circular fashion to clean/buff the repaired area.
8. Wipe the area with a clean cloth rag and clean water.
9. Using Epoxyn Dressing Kit, wipe the area to refurbish the color and luster of the repaired area.
10. Apply a light coating of Scott's Liquid Gold, Old English Lemon Oil, or other similar commercially available product to the entire counter top.

## **IX. USE AND CARE GUIDELINES FOR PHENOLIC WORK SURFACES**

### **Surface Protection**

**Scratches and Impact:** Do not chop, slice or pound directly on a phenolic work surface. Use a

chopping block or other protective surface. Heavy impact, such as a hammer can cause gouges in the surface. Knives can leave slices or scratches. Ceramics and abrasive materials can scratch phenolic work surfaces.

**Hot Objects:** Do not place extremely hot items of phenolic work surfaces. Phenolic work surfaces can withstand heat up to 350°F. However, prolonged high temperature exposure can cause surface damage. Use an insulated hot pad or other protective device beneath hot items. Do not place hot irons or crucibles directly onto phenolic work surfaces.

### **Ordinary Cleaning**

To keep phenolic work surfaces looking beautiful, clean with a damp cloth using mild non-abrasive cleaners, e.g., 409, Fantastic, etc. Some commercial self-cleaning waxes and polishes can be used on phenolic work surfaces, but caution must be taken since others contain abrasives that will eventually damage the surface or make it susceptible to stains.

Stronger acid or alkaline-based cleaners may permanently damage or stain phenolic work surfaces. Never allow these cleaners, containers, rags or other items contaminated with these cleaners to remain in contact with phenolic work surfaces. Examples of such cleaners include:

drain cleaners	some countertop cleaners	ceramic top cleaners
chlorine bleach	oven cleaners	rust removers
toilet bowl cleaners	metal cleaners	

If you spill such cleaners on a phenolic work surface, wipe up the spill immediately and rinse the effected area thoroughly with water. Chemical testing, performed to SEFA 8-1998 test specifications, has shown that phenolic work surfaces resist most chemicals for a period of time, but there is no substitute for good housekeeping. Check your phenolic work surface specifications for chemical resistance prior to long-term exposure.

### **Disinfecting**

Phenolic work surfaces may be disinfected with common alcohol based disinfectants or with mild solutions of hydrogen peroxide.

### **Special Cleaning Recommendations**

**Residual adhesive:** Phenolic work surfaces will occasionally have a protective cover sheet used during shipping that may leave residual adhesive. Clean this adhesive with a non-abrasive cotton cloth and adhesive solvent such as lacquer thinner, MEK, or acetone. Read and follow all instructions and warnings on the labels of all solvent products.

Paint and varnish: Remove most oil based paints, varnishes and lacquers with a suitable solvent or paint remover. Read and follow all instructions and warnings on the labels and remember that most solvents are extremely flammable. Remove most water based paints with an ammonia-based household cleaner or paint remover. For stubborn paint spots, use a plastic, non-abrasive scouring pad. Never use steel wool or other metal scouring pads.

Stains: Phenolic work surfaces are resistant to most common stains. However, some materials and liquids such as certain dyes and pharmaceutical products may permanently stain phenolic if not removed quickly. Examples include:

some hair dyes  
Mercurochrome

laundry bluing  
dermatological tar

tannic acid  
povidone-iodine

To remove or minimize such stains, use full strength Pine-Sol® liquid cleaner or another mild household spray cleaner on the effected area, and allow it to draw out the stain. Blot with a damp, non-abrasive cloth, then rinse. You can also use solvents such as denatured alcohol. Follow all directions and warnings on the solvent label because many are extremely flammable.

### **Avoidance of Abrasive Cleaners/Materials**

DO NOT use abrasive cleaners, powders, scouring pads, steel wool, sandpaper, and etc. to clean phenolic work surfaces. These can damage the surface finish and make it susceptible to staining.