

Thermo Scientific Epoxyn Products

Receiving, Installation and Care Instructions

Thank you for purchasing our epoxy resin products. In order to ensure you receive many years of service from your investment, follow these instructions. It is important that you read and familiarize yourself with the steps and to avoid damage while receiving and handling, properly installing, and caring for the products

For questions related to these instructions, please 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 shipment, the following steps should be followed:

1. Inspect all pieces for damage caused during shipment. If packaging material is damaged, 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 may be cumbersome to handle due to their weight and size. They are susceptible to breakage if dropped. Leaning resin work surfaces 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 exceed 50 lbs.
To avoid personal injury and property damage, adequate manpower is required to unload and handle resin products.

4. Once the products are unloaded, care should be used in distributing materials to the rooms/areas of installation. Damage to the products or damage to the interior finishes of the building can occur if careful distribution is not exercised.
5. After distribution, products should be checked for conformance with your order in accordance to 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.*** To report discrepancies, contact our Customer Service Department at 870. 425.4321 and request a Shortage & Breakage Form. The form must be completed in full 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. Work surfaces should be stored flat and fully supported along their entire length and width. To prevent warping or twisting, epoxy resin products should not be stored outside without cover. 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® wood cleaner or similar product
- Clean cloths
- Rubbing alcohol

Installation of sinks and work surfaces 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 work surfaces 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 work surfaces 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. Silicon does not visually match the resin work surfaces, sometimes resulting in a less than acceptable installation.

For this reason, we provide and recommend the use of epoxy cement for installing work surfaces and sinks, except in those instances where the end-user requires flexibility and movement on a frequent basis. Use of epoxy cement provides 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.

INSTALLATION OF PRODUCTS – continued

I. Cupsink Installation

- a. Oval and rectangular cupsinks are installed in the same manner
 - b. Cupsinks are installed from the top of the work surface and cemented in place in a permanent location.
 - c. Place the cupsink in the factory-cutout to ensure proper fit
1. Remove the cupsink. Using a clean cloth and alcohol, wipe cutout in work surface and lip of cupsink to remove any excess fabrication dust/oil.
 2. Mix two-part epoxy cement carefully following instructions on container.
 3. Carefully apply cement on bottom edges of cupsink and in work surface cutout. Press cupsink into cutout until lip of sink is flush with work surface 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 work surfaces and building surfaces since it cannot be removed once cured.

4. Leave cement cure overnight before attaching any plumbing to avoid misalignment of the cupsink.
5. If cement around cupsink shrinks after curing for 24-hours, grout seam until smooth. Ensure excess cement is removed as noted in Step 3 above.

II. Tub Sink Installation

Tub sinks are installed from below the work surface, usually within a cabinet or under an apron.

1. Following cabinet manufacturer's instructions, install tub sink "cradle" in cabinet or apron, ensuring cradle is extended to the lowest possible position.
2. Using a clean cloth and alcohol, wipe the top rim of the tub sink and bottom surface of the work surface at the cutout 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.
5. Adjust the cradle until the tub sink is pressed tightly against the underneath of the work surface.

NOTE: Avoid over-tightening the sink cradle as excessive pressure will cause the work surface to push up and possibly cause damage to the cabinet, work surface and/or tub sink.

6. Looking through the sink cutout in the work surface, wipe any excess cement from the interior walls of the tub sink using a clean cloth dampened with clean water. Excess cement must be removed prior to 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.

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

III. Work surface Installation

Proper installation of work surfaces is dependent on the quality installation of casework which supports the resin products. Prior to installing work surfaces, an inspection of the casework is required. In order to ensure a quality installation of work surfaces, the following should be reviewed:

- Ensure casework is installed plumb and level. If it is not, casework must be corrected.
- Inspect top rails of the casework to ensure alignment between units is smooth. If misalignment is detected, casework must be corrected.
- Inspect top rails of the casework to ensure 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 casework to remove any dust/dirt to allow for proper adhesion of adhesives during work surface installation.
- If plumbing or electrical service runs have been roughed-in prior to installation of work surfaces, check to ensure piping and/or conduit does not interfere with the bottom side of work surfaces and/or sinks. If interference is detected, have piping and/or conduit moved.

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

1. Starting with the corner pieces of work surface (if applicable), begin laying complete assemblies of work surfaces on top of the casework as shown on drawings (provided by others).
 - Arrange work surfaces to allow for a joint approximately 1/16” – 1/8” wide.
 - Work surfaces should overhang the cabinets in front and at the end of an assembly in accordance with installation drawings provided by others.
 - Check to ensure fixture holes and sink cutouts 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 work surfaces be placed in their correct location to ensure adequate joint width and acceptable installation.

2. After dry-fitting an assembly, remove pieces of work surfaces and carefully place to the side.
3. Starting with the corner of a work surface assembly, wipe the edges to be joined to adjacent pieces of work surface with a clean cloth dampened with alcohol to remove any excess fabrication dust/oil.
4. Wipe the bottom of the pieces of work surface with a clean cloth 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 work surface immediately adjacent to the joint.
6. Mix the two-part epoxy cement following the instruction label on the container.
7. Tip the work surface piece up from the front. Using a putty knife, apply a small dab of cement over 12" – 24" on 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 work surface 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 work surface together. Work the pieces back and forth to the desired joint width and to ensure proper adhesion of cement to both pieces. Ensure 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 work surface 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 work surface by wiping the surface of the work surface with a cloth 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 work surfaces and causing permanent stains.

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

Installation of remaining work surface pieces should follow in accordance with the steps listed above.

NOTE: Curing time for epoxy cement is approximately 24-hours. Work surface pieces should remain clamped and undisturbed during this period of time to ensure proper adhesion.

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

- Dry-fit backsplash to ensure proper fit.
- Wipe bottom edge of backsplash and surface of work surface with a cloth 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 ensuring cement is evenly applied along the entire length.
- Press backsplash into place, ensuring it is straight and level.
- Using a putty knife, remove excess cement.
- Allow cement to initially set for 10 to 15 minutes, then lightly wipe joint with cloth 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 taken:

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 work surface in pencil. If the work surface is already installed, check underneath and confirm clear space for piping and fixture installation.

WARNING: Drilling resin work surfaces will cause a very fine black dust to become airborne. ***Utilize adequate personal protective equipment and cover 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 Cutouts

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

Undermount tub sink cutouts are performed as follows:

1. Measure the inside dimensions of the sink to be installed.
2. Subtract 1" from the inside dimensions of the sink, mark the hole on the work surface in pencil.
3. Using a diamond tipped or carbide hole saw $\frac{1}{2}$ " less than the radius of the tub sink, drill the four corners of the sink cutout.

WARNING: Drilling resin work surfaces will cause a very fine black dust to become airborne. ***Utilize adequate personal protective equipment and cover other equipment or finished surfaces in the room.*** Whenever possible, drill 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 cutout. Make 3 to 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 is prepackaged in a kit.

VI. Field Fabrication

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

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

VII. Installation Completion

Once installation of all work surfaces 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, 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 work surface surface and grout joint using epoxy cement. Clean work surfaces after using cement as noted throughout these instructions.
- If additional construction activity is still taking place around the work surfaces, it is recommended that they be covered with corrugated cardboard. Cardboard should then be covered with 3 to 5 mil plastic and taped in place to prevent any damage to work surfaces.

NOTE: Warn other contractors/trades of the potential damage that can be caused if they use work surfaces as work-benches or scaffolding to perform their work.

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

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

VIII. Care of Epoxyn Products

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. End-users must be aware that 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 products, will cause stains or permanent etching of the resin surface. Spills must be immediately cleaned to avoid damage to your resin products and avoid any danger to personnel.

We recommend the following process/intervals for basic care of Epoxyn Products:

1. In normal laboratory applications, work surfaces 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 ensure the lasting beauty and durability of your resin products.
 - To clean resin products and remove dirt, dust and chemical residues, 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 to avoid damaging the resin surface.

2. Sinks should be inspected on a monthly basis to ensure the seal between the sink and work surface, and the seal between tub sink and sink plug (sink strainer), is in good condition. Specifically look for voids or cracks in the cement at seams. If cracks or voids are detected, repair immediately.
3. Work surfaces should be inspected every six months. Review of housekeeping practices should be conducted, especially in any area that staining occurs on a frequent basis. Inspection of the work surfaces must include a review of the joints to ensure they are sealed and solid. Look specifically for cracks or voids in the cement at joints. If cracks or voids are detected, repair immediately.

IX. Repairing Resin Work surfaces

Although the resin materials used to form work surfaces are very hard and durable, they can be damaged if care is not taken. If damage is identified, the following steps should be taken to make repairs.

Scratches

Work surfaces 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 work surface. Scratches can be categorized as either **surface** scratches or **deep** scratches.

Surface scratches can be easily repaired following these steps:

1. Wipe the work surfaces with a clean cloth dampened with Scott's Liquid Gold, Old English Oil, or other similar commercially available product.
2. If surface abrasions are not removed using this process, the deeper scratches must 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, use a circular motion and clean/buff the sanded area.
 - Wipe the area with clean water to remove all grit and cleaners.
 - Using an Epoxyn Edge Dressing Kit, apply a light coating to refurbish the color and luster of the resin work surface.
 - Wipe the entire work surface with a light coating of Scott's Liquid Gold, Old English Oil, or other similar commercially available product.

Should the work surface sustain minor chips at the edges or corners, the following steps should be followed:

1. Using a clean cloth dampened with alcohol, clean the area of the chip and surrounding work surface.
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 work surface.

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 work surface.
7. Using a 50/50 mixture of Soft Scrub and a commercial cleanser on a clean cloth, apply the mixture in a circular fashion to clean/buff the repaired area.
8. Wipe the area with a clean cloth and clean water.
9. Using an 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 Oil, or other similar commercially available product to the entire work surface.

X. Care of Phenolic Resin Products

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.

Regular Cleaning

To keep phenolic work surfaces looking beautiful, clean with a damp cloth using mild non-abrasive cleaners, such as Formula 409® or other mild commercial cleaner. 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, their containers or other items contaminated with these cleaners to remain in contact with phenolic work surfaces. Examples of such cleaners include:

- Drain cleaners
- Chlorine bleach
- Toilet bowl cleaners
- Some countertop cleaners
- Oven cleaners
- Metal cleaners
- Ceramic top cleaners
- Rust removers

If you spill such cleaners on a phenolic work surface, wipe up the spill immediately and rinse the affected area thoroughly with water. Chemical testing, performed to SEFA 8 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 (methyl ethyl ketone), 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
 - Laundry bluing
 - Tannic acid
 - Mercurochrome
 - Dermatological tar
 - Povidone-iodine

To remove or minimize such stains, use full strength Pine-Sol® liquid cleaner or another mild household spray cleaner on the affected 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, etc. to clean phenolic work surfaces. These can damage the surface finish and make it susceptible to staining.