DURCON®
A WILSONART COMPANY

EPOXY WORKSURFACES INSTALLATION MANUAL

Installation & care guide for Durcon epoxy worksurfaces, sinks and outlets

INDEX OF MANUAL & STEPS

INTRODUCTION AND PREPARATION

This manual provides instruction on general installation, as well as common care & maintenance. For more detailed instruction on specific aspects of the installation process, we encourage a visit online to Durcon's YouTube page to view our library of informative "How-to" video guides.

Once the tops have reached the job site, handle them with great care as dropping or dragging the material can result in irreparable damage. If tops are damaged when received, contact your provider.

It is best practice to install epoxy worktops in the final stages of construction, and cover with a cloth for protection. This reduces the risk of damage by tradesmen, who have been known to use tops as workbenches or scaffolding. Be sure to store all worksurfaces flat and protected, do not lean against the wall as warpage may occur.

Before beginning, you will want to have the following items on-hand and ready in order to make your installation go as smoothly as possible:

- ☐ Safety glasses
- ☐ Putty knives
- ☐ Level
- ☐ 4 or more C-clamps
- ☐ 2 inch wide masking tape
- ☐ 2-part (A & B) epoxy adhesive (other sealants such as lab grade silicone, are acceptable)
- ☐ 4 or more equal size applicator sticks
- ☐ Lacquer thinner
- ☐ Silicone sealant (lab grade)
- ☐ Several pieces of hardwood blocking
- ☐ Tapered shims made of wood or similar material
- ☐ Several pieces of cardboard, in varying sizes
- ☐ 2 or 3 pieces of lumber at least 1.5x the width of the cabinet
- ☐ Scotchbrite® Light Duty white finishing pads
- ☐ Distilled water
- ☐ Several clean rags

LEVEL THE CABINETS

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

Dry-checking the worksurfaces, curbs and sinks

- Study the worksurface layout included with the shipment and properly place all the pieces. Each piece is labeled to correspond with the layout.
- Caution: Epoxy resin worksurfaces are heavy. Always have assistance and use proper lifting techniques when moving worksurfaces.
- Place the worksurface pieces on the cabinets and slide them into place slowly without slamming pieces together to prevent chipping and be cautious to prevent anything abrasive from coming into contact with the worksurface.
- 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 en sure they are the correct length. Note: In the case of damaged, malformed or missing pieces, please notify Durcon immediately. Inspect each section of the worktop before applying adhesive. Durcon will not be responsible for removal of adhered defective tops.
- After you have checked the cabinets and inspected the pieces, you are ready to begin installing.

Mixing epoxy adhesive

- Two-part epoxy adhesive is the most important material used in installing epoxy resin worksurfaces, and properly mixing it together is a critical step.
- Always use a separate stick to scoop each part of the epoxy adhesive, and use the same stick each time to avoid contaminating the unused portion.
- Mix only what you need for the number of pieces at hand, using a clean piece of cardboard.
- Begin with the dark pigment epoxy and mix the white material in thoroughly until achieving a 50/50 ratio.
- Spread the mixed epoxy adhesive in a layer about 0.25" thick on the cardboard to prevent it from generating its own heat and drying too quickly.

INSTALL DURCON WORKSURFACES

Set the worksurfaces

- With two worksurface pieces, form a flat surface using a straight edge or level.
- Use shims to adjust the height of either piece if necessary.
- Lift and prop up the first two pieces.
- Place small dabs of epoxy adhesive in intervals every 24" [610 mm] along the front and back edges of the cabinet top below the first worksurface piece. Then 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 adjoin.
- Repeat the above steps for the second worksurface piece and carefully lower it into place leaving a 0.125" [3 mm] to 0.0625" [1.5 mm] seam between pieces.
- Repeat this process for the remaining worksurface pieces in each run.

Fill 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.
- The seam should be filled with adhesive up to half of the thickness of the material, i.e. a 1" countertop should have 0.5" fill across the seam.
- 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 the masking tape approximately 0.0625" [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 a rag dipped in lacquer thinner or distilled water to smooth out the epoxy adhesive for finished seams.
- Use a separate clean (damp or dry) rag to wipe away any excess adhesive, making sure the surface near the seams is properly cleaned as residue can leave a haze that is difficult to remove.
- Note: Never attempt to sand seams or scratches. Allow adhesive to harden overnight (at +77°F).

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. 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 dipped in lacquer thinner.
- To ensure worksurfaces and curbs are secured in place, block and clamp the seams and allow the adhesive to harden overnight (at 77°F).

INSTALLING DURCON SINKS

Installing a Durcon DropIn® Sink

- Using a rag dipped in lacquer thinner, clean the rim of the Durcon DropIn Sink and 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 0.125" [3 mm] cutout bevel.
- Use a rag dipped in lacquer thinner or distilled water to wipe away excess adhesive.
- Allow epoxy adhesive to harden overnight (at 77°F).
- After the dabs of epoxy adhesive harden, fill the seam with epoxy adhesive.
- Using a rag dipped in lacquer thinner or distilled water, smooth off the seam. Seams should be 0.06" to 0.12".
- Use a new, clean rag (damp or dry) to wipe away excess adhesive.
- Allow epoxy adhesive to harden overnight (at 77°F).

Installing a Cupsink

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

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

- Position the blocking mechanism 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 cupsink outlet. Twist smaller block to achieve enough tension to hold cupsink level with worksurface top when in place.

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

INSTALLING UNDERMOUNT SINKS

Setting an undermount sink

Note: Check to see that the sink fits properly on sink supports provided by your cabinet supplier. Durcon does not provide sink supports.

- Using a level, check to ensure top of undermount sink is flush with top edge of cabinet.
- Adjust sink supports if necessary from under the sink.
- After sink is positioned, be careful not to move it as you set the worksurface.
- Wipe rim of sink and contact points on the bottom of worksurface with a rag dipped in lacquer thinner or distilled water.
- Apply a small bead of silicone sealant to the top edge of sink.
- Apply a dab of epoxy adhesive at each corner of sink cabinet.
- Place a bead of silicone under the inside of the sink cutout and the sink.
- Carefully lower sink worksurface into place.
- Follow 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 recessed hole in the sink with lacquer thinner.
- Apply silicone or epoxy adhesive to the outlet in a 1/4" [6 mm] bead around bottom edge.
- Insert outlet directly into recessed hole in the sink.
- Give outlet a 1/4 turn after contact is made.
- Be sure the outlet is centered in the hole.
- From under the sink, thread retaining nut all the way up and hand tighten until upper outlet flange is flush with 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 dipped in lacquer thinner or distilled water, 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 Guidelines for Durcon Epoxy Worksurfaces & Sinks

Durcon epoxy worksurfaces are durable, non-porous, monolithic, lab-grade products that are relatively unaffected by most chemicals, heat, flame and moisture. Its physical properties are resilient and seldom compromised – however they do require periodic care and maintenance throughout the life of the laboratory or facility to keep the surfaces looking like new. Whether you are a facility owner, manager, custodian or lab end user, following these guidelines will maintain the aesthetic appearance of your lab's worksurfaces.

STANDARD CARE

Durcon recommends instituting a regimen of monthly close inspections of all surfaces, sinks and joints, in addition to daily or weekly cleanings, to maintain a worksurface's original finish, and to help ensure a safe, uncontaminated working environment. The following list contains approved items you may want to have on-hand for regular cleaning, care and maintenance.

- Acetone or 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, abrasive pads, powders or liquids (such as Soft Scrub) on epoxy worksurfaces or sinks, as dulling of the surface may occur.

Worksurface Care

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

- Apply a small amount of oil onto a clean rag, just enough to cover the surface area.
- Thoroughly rub the oil in, using a circular motion.
- Wipe away excess oil with a clean rag.

Durcon Epoxy Sink Care

Laboratory sinks can present the greatest challenges for cleaning and maintenance. Sink basins can be used as a collection point for dirty and wet lab ware, leaving liquids, residue and chemicals on the surface for extended periods of time. Sink areas require more frequent inspections as well as a more thorough cleaning regimen than bench worktops.

Sink inspections should assess all sink surfaces and joints in sink the area, including the outlet joint and the sink rim joint above and below the worksurface. Fill-in cracked or pitted joints immediately with two-part Smooth-On® epoxy grout to prevent leaking and damage to the supporting casework.

MARRING, SCRATCHES & STAINS

For more serious maintenance issues, it is important to first identify the problem before trying to remedy it. Below are several common issues and the recommended remedy for each.

Marring

Most metals are softer than epoxy worksurfaces, and can leave a mar if pulled across a worktop. Marring is the material from an object left on the surface that appears as a line and is smooth to the touch. Marring can almost always be removed with acetone or a mild cleaning product.

Always start with the softest cloth and weakest solution (soap and water) first, then work your way up as necessary. If marring persists, progress to a white Light Duty Scotchbrite® pad moistened with a stronger solution. Never use an abrasive pad dry, and always begin by applying a minimum amount of pressure, increasing to only what is required 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 worksurface and are rough to the touch. Scratches in epoxy resin are permanent, but do not affect the performance of a worksurface.

An aesthetic remedy a scratch is to fill-in the void with a black permanent marker. However, this option is unlikely to perfectly match the color and gloss of the surrounding worksurface.

Stained Surfaces

Staining occurs when chemicals are left to dry on a worksurface. Chemical stains usually lighten or bleach the surface, but may also roughen and even crack the surface. Like scratches, chemical stains are permanent and if too much damage has occurred, the top may need replacing.

Special Care Issues

Durcon epoxy products (especially glued-in sinks) are subject to thermal shock and may experience damage from liquid nitrogen or dry ice. Improper disposal of these materials may results in joint failure and/or sink fractures.