Countertop Epoxy Instructions

Tools required:

- ☐ Two large mixing containers
- ☐ Smaller mixing containers for accent colors if desired
- ☐ Spray bottles (one with just isopropyl alcohol; additional accent colors should have their own)
- ☐ Temperature gun aka Infrared gun
- ☐ Mixing sticks
- ☐ Power Drill and plastic paddle mixers (for 2+ gallon mixtures)
- ☐ Chip Paint Brushes
- ☐ Foam Roller
- ☐ Propane Torch (Bernzomatic T53500 or better; avoid butane or MAPP gas)
- ☐ 99% Isopropyl Alcohol
- ☐ Disposable nitrile gloves
- ☐ Tape & Drape
- ☐ Box of Rags
- ☐ Painters Tape
- ☐ A timer of some sort
- ☐ Fire extinguisher… just in case!

Key Terms:

- ❖ **Skim coat** - A thin application of clear epoxy used to seal a porous substrate. Skim coats are often referred to as 'seal coats,' they are one in the same.
- ❖ **Flood coat** - The thick aesthetic epoxy pour that is poured out onto your substrate; clear or colored.
- ❖ **Working time frame** - The amount of working time you have once instructions have been followed and product is *immediately* poured out of the containers.
- ❖ **Pot life -** The amount of time mixed product can sit in the container - also a word we typically *never* use when working with countertop epoxies. We encourage you to follow instructions and keep track of your temperatures with a Temperature gun.
- ❖ **Flash cure** - When mixed epoxy sits in a container too long OR when environmental/product temperatures were too high to begin with, resulting in quickly increasing temperatures that solidify the epoxy making the product unusable. Be cautious as flash cures can result in burning of the skin and smoking in the container.
- ❖ **Fish eyes** - When product is pulled thinner than the recommended amount for a Flood coat leaving divots.
- ❖ **Granular** - A speckled 'design' commonly seen in granite, quartz and similar natural stone countertops that can be mimicked with our Metallic powders.
- ❖ **Veining** - A fractured mineral deposit 'design' commonly seen in natural stones such as granite, marble and quartz.
- ❖ **Dirty pour** - A 'design' where a batch (or multiple batches) of various colors of epoxy are poured out of the container onto a substrate.
- ❖ **Marble floor** - A 'design' where two or more colors are sporadically distributed throughout the project and very lightly blended together.
- ❖ **Dual coat** - A clear Flood coat poured on top of your first Flood coat. This process adds durability and dimension to your project! Often one will lightly add accents in the clear Flood coat as well.

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Bear in mind temperatures

Temperatures matter! Start by ensuring that the ambient temperature of the room is in the goldilocks temperature zone between 70°-75° degrees Fahrenheit (21°-24° celcius). We advise the room be at this setting about 24 before and after the start of your project.

Product temperatures can drastically vary during transit throughout certain times of the year. With our infrared **Temperature gun**, temp your epoxy to ensure it is in the goldilocks temperature zone as well. Do not assume that because it has sat in the same room for a couple hours that it will be the same temperature. Epoxy is of a thicker consistency than water and will take time to acclimate to its surroundings. While allowing the product to acclimate naturally, please note that if the epoxy sits along a furnace, cold wall or window - this can drastically affect the performance of the epoxy.

- We do not recommend any type of temperature acclimating methods - let it adjust naturally.
- Lower temperatures below 70° can result in a softer cure with an extended cure time.
- Higher temperatures above 75° can result in the epoxy setting up quicker thus cutting back on your working time and making it difficult for the epoxy to evenly level itself.

Step 1: Prep Work

Declutter the working area. Shut off any airflow. Limit traffic in the area in order to prevent debris from landing in your project. Clean your substrate with household cleaning products free from oil or water. Isopropyl alcohol works just fine.

Use DAP spackling to fill small holes, cracks, and seams. Do not leave any excess of spackling on surfaces that will be coated with epoxy. Use a sanding block to smooth those repairs and clean up dust afterwards.

Mask off areas in which you want to protect the epoxy from falling onto (ie: cabinets, floors, trimmings, ect). Make sure there is more than enough masking on the surrounding floor where you will be moving around as you may accidentally step on a dripping and spread it around without realizing it.

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- **Attached roll up backsplash up to 4”** - Mask above the backsplash to prevent any epoxy from splashing upward onto the wall. Ensure the masking tape sits high enough so that the epoxy does not bond to it when it cures. Ensure there are no gaps between the backsplash and back walls as epoxy can ooze down behind it.
- **Installing an epoxy Backsplash** - Lay pre-cut 1/4th” MDF on saw horses (or elevated off floor) and pour your epoxy design. Let it cure for 24 hours then install with liquid nails. Pour your epoxy design onto the countertop. Pull epoxy slowly against the 90 angle to prevent an upspalsh of epoxy. This process will yield a seamless finish!


Step 2: Mixing Epoxy

Our Countertop Epoxy is a two part system at an equal 1:1 ratio whether you are using our **Premium FX Epoxy** or our more high end **Black Label Epoxy**. Pour your Part B Hardener into an empty and clean mixing container. Then pour equal amounts of Part A Resin into the same container. Mix thoroughly, not vigorously, for 3 minutes. While mixing be sure to periodically run the mixing stick along the walls and bottom of the container and off the stick - and continue to mix.

After 3 minutes is up, pour the mixed epoxy into a second mixing container. *Only at this time* will you add the appropriate amount of colorant to your batch. Keep it clear if your intention is to use this batch for a Skim coat or a clear Flood coat. With a brand new stir stick, continue to mix for an additional 3 minutes while ensuring you run the mixing stick along the walls and bottom of the container and off the stick again.

If adding color, conduct a stick test! With a sharpie draw a shape/letter on your wooden stir stick. Once you've added color *(ratios in Step 4)*, mix thoroughly then pull that stick out to see how transparent or opaque your epoxy is at that time. If you can see the sharpie shape/letter then you have a somewhat transparent epoxy; if you cannot see it then that indicates a full color blocking epoxy. Most people want a color blocking epoxy Flood coat as they do not want to see the previous substrate underneath.

- Please note that running the stick along the interior of the containers in addition to switching containers will help ensure all of the epoxy gets thoroughly mixed together. Unmixed product can result in tacky spots throughout your epoxy pour.
- A plastic paddle mixer can be used for 2+ gallons at a time however this must be conducted at a consistent slow enough speed to avoid creating microbubbles or a vortex which will incorporate bubbles. Turn on only when fully submerged; shut off prior to removing. A stir stick is still recommended for the walls and floor of the containers.

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Immediately pour out all of the product onto your substrate! So long as temperatures and mixing time frames were within the recommended thresholds you should have roughly 20 minutes (give or take) of a working time frame when working with our **Premium FX Epoxy**; and about 45 minutes (give or take) of a working time from when working with our high end **Black Label Epoxy**.

- **Never** leave mixed products unattended as the product will continue to increase in temperature and will flash cure!
- Experienced epoxy enthusiasts can **Temperature gun** their product and pour it out at a hotter temperature. Again this is recommended for individuals well versed with our products as this process will cut back on your working time while helping achieve a slightly harder cure and decrease the amount of time babysitting any vertical applications.

Countertop Epoxy Instructions

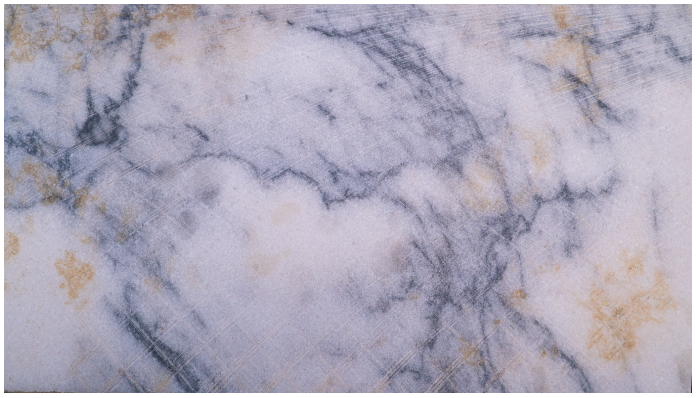
Step 3: Skim Coat

The purpose of a Skim coat is to seal the substrate. This prevents air bubbles from rising into your final pour yielding a smooth flawless finish. On average we use about 1-2 ounces of clear mixed epoxy per square foot to seal a substrate. Once the batch of epoxy is mixed and ready to go, we slowly pull the product across the substrate with a firm putty knife. Your substrate should simply appear, 'wet'.

Porous substrates such as untreated concrete or wood and some natural stones - *will* require a Skim coat. Note that some substrates are more porous than others and can require more than one application.

Non-porous substrates such as MDF, laminate, fiberglass, and metals are not considered porous and do not require a Skim coat - meaning you can proceed straight to your flood coat! Be advised some substrates claim to be sealed or were sealed years ago. Conduct a water test to see how absorbent the substrate is. If unsure - better safe than sorry!

- Tiles aren't porous but grout lines are! We would recommend using our **Non-Sag Wall Epoxy** to trowel a smooth and leveled surface and then sand any high spots the following day before pouring your Flood coat. Otherwise you can do multiple Skim coats until the countertop is leveled.
- We recommend working with kiln dried wood or wood with less than an 8% moisture content.
- We recommend working with concrete that is at least a month old.
- For exceptionally slick surfaces, you can conduct a very light non-abrasive sanding being careful not to expose any porous materials underneath. This will help your Flood coat adhere.



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Nothing is needed to pop bubbles a Skim coat as the application should be thin enough to allow air bubbles to easily pass through. There should not be any excess epoxy puddling on the surface.

- When working on more textured surfaces you can use a chip paint brush to get into those nooks and crannies. Do not overwork the product otherwise it can become frothy.
- Skim coats should cure within 6-12 hours.

Step 4: Flood Coat

On average we utilize about 7-9 ounces of mixed epoxy per square foot. With this information in mind, don't be frugal! Add extra epoxy to your total calculation as we want to ensure you have enough to address your edges (especially if they're higher than an average countertop) and have the product flow off the counter onto the floor as it is intended to do.

We color our epoxy with our liquid pigments and metallic powders. Our color line is color stable, UV resistant, and designed to cure with our epoxy. We would encourage you to stick with our product line to ensure the best long lasting results possible.

- 1 x 12 ounce **Liquid Pigment** can color block an entire 2 gallon kit.
- 1 x 175g bag of a specifically selected **Metallic Powder** can color block an entire 2 gallon kit.
- Ultra fine glitters, glitters, and translucent colors will **not** color block - these are typically used for accents.
- Review the product description of your desired colors or call the office to inquire.
- Use glitters in clear coats for optimal results!

Once your mix is complete and has been poured out onto the substrate, use your foam roller to guide the epoxy to the edges, but don't let it roll off just yet! Ensure there is enough product evenly distributed throughout the substrate so that you don't end up picking up globs of epoxy from the floor to cover bare spots on the tabletop.

If everything looks good, you can quickly conduct a technique called **breaking the surface tension** by introducing those vertical edges to the existing epoxy already on the foam roller. Guide the epoxy off the edge by holding your foam roller at about a 45° angle and gently pulling it parallel to the edge, allowing the product to cascade off those edges!

Give the epoxy some time to allow any natural bubbles from the mixing process to surface and pop. Afterwards you can assist popping those bubbles with a bottle of just 99% isopropyl alcohol and light usage from a torch if needed. Use a torch sparingly to avoid making the product so fluid that it runs off the counter resulting in a very thin coating on the surface and verticals. Conduct quick passes back and forth with your torch to avoid burning it.

- Countertop Epoxy has a height built in its formula. Flood coats want to level out at 1/8th of an inch; pour the recommended amounts and do not pull thinner than suggested otherwise you will get Fish Eyes.
- Remember, alcohol is flammable so wait for alcohol to evaporate before torching.
- **Never** torch verticals!

Want to give your Countertop added dimension and durability?! Pour a clear Flood coat, also known as a Dual coat. You can add some accents for maximum dimension. Bear in mind, you can always add another Flood coat weeks, months, or even years later if you decide to enhance the appearance or simply regloss the countertop. Just remember if it's been longer than a week since that first Flood coat was poured, consider a light sanding cleaned up by alcohol, to help that new layer get the best mechanical bond possible.

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Another tip: Sometimes accidents happen and a bug, debris, or cat print ends up on your project. If it's not something you can or want buff out for fear of losing your high gloss or the accents sprayed on top - simply pour a clear and add some light veining or accents on top in order to camouflage the error underneath.

- Flood coats should be firm to the touch within 24 hours and ready for light usage within 48 hours!
- Flood coats can receive a second Flood coat application or sanding within 12-24 hours.
- Conduct a wet sanding if you'd like to keep the debris from floating in the air and/or if the epoxy is still pretty fresh and begins to get gummy.
- It is advised, with a dominantly white coating, to take extra caution with direct heat, including slow-cookers, pressure cookers, or anything that might produce direct heat to the surface for longer periods of time. We recommend using a hot pad for extra protection to prevent any discoloring.

Step 5: Accent colors in your Flood Coat

Accent colors must be added to your Flood coat prior to it curing - this may go without saying but, let's make sure we're all on the same page.

There are a couple designs in which we add accent colors:

1) For a more **granular** look we add metallic powder to a spray bottle with 99% isopropyl alcohol:

   Our commonly used metallic powders come in 25g baggies and are usually more than sufficient for average sized kitchens. In terms of powder and alcohol ratio's - you can't mess this up. Typically a pint of isopropyl alcohol is sufficient per accent color. Add some powder to the alcohol bottle then conduct a spray test. If the spray is too sparse - add more metallic powder. If the spray is too condensed - add more alcohol. A methodical design technique would involve spraying more heavily in certain areas and lighter in others. Make sure you give the spray bottle a good shake every so often. Remember, glitters are just that, they are not metallic powders and they will clog your nozzle.

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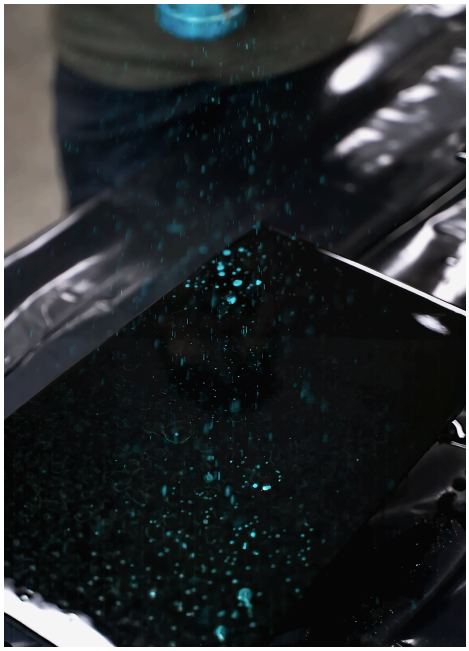
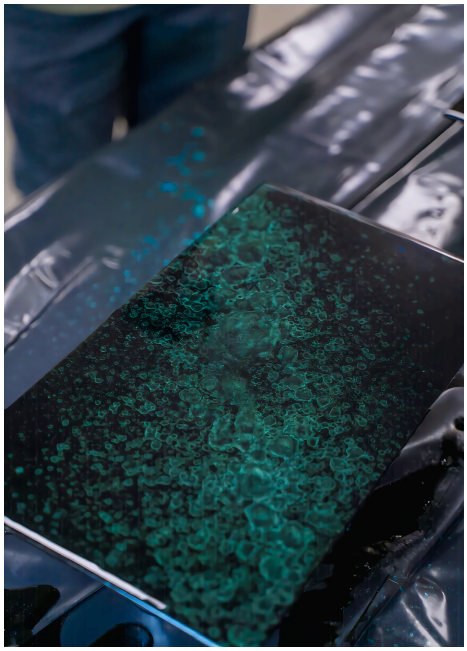
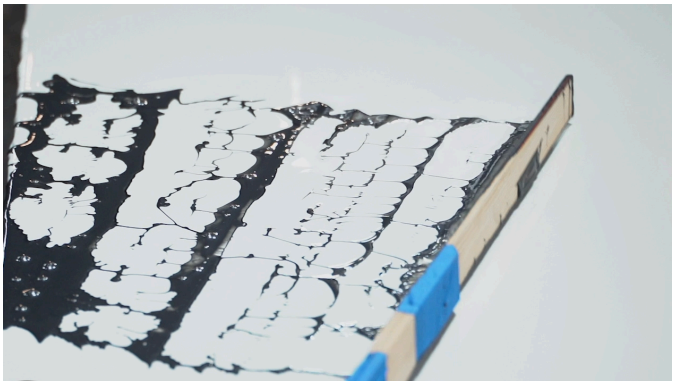
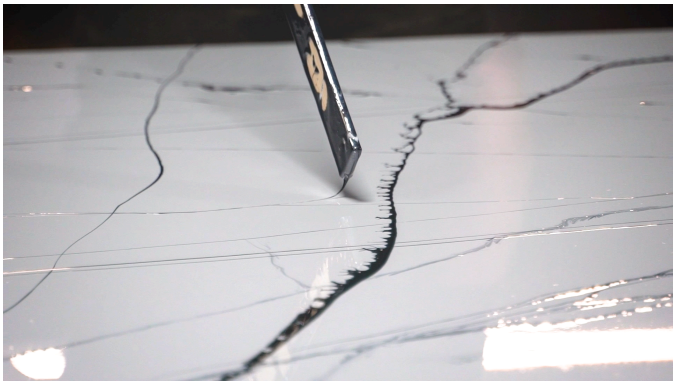



2) For **veining** we add metallic powders or liquid pigments to a batch of epoxy:

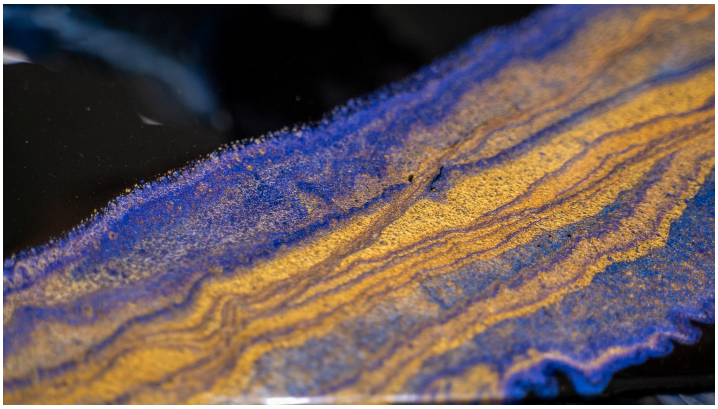
   The amount of accent epoxy you decide to use is up to you! Please reverent to Step 4 to see epoxy-to-color ratios. Remember, not all colors are color blocking, so ensure that you read the description or call the office to inquire. When veining, typically we like to use a wide flat surface (a piece of cardboard or dust pan) to pour the accent into, we spray isopropyl alcohol on the surface of where we're about to pour, and then distribute a wide yet thin consistent layer of epoxy. Begin your pour off the countertop so that the first large dollop doesn't land on your project. The alcohol applied prior to the vein and the alcohol sprayed afterwards should help the veins separate and spread out. For more singular veins simply use a small container of epoxy, a paint brush or stir stick with a dollop of epoxy and strive to lay the design across the table; do not do zigzags or circles.

3) For **dirty pours** we add metallic powders or liquid pigments to a singular or multiple batches of epoxy:

Countertop Epoxy Instructions

The amount of accent epoxy you decide to use is up to you! Please reverent to Step 4 to see epoxy-to-color ratios. Remember, not all colors are color blocking, so ensure that you read the description or call the office to inquire. When adding multiple colors to a project, remember that you must work within the working time frame of your Flood coat application and never leave product in a mixing container longer than recommended otherwise it can **flashcure**! When working with multiple colors it is advised to have a helper mix colors. Also consider working with our **Black Label Epoxy** as that product naturally has a longer working time frame.



4) For a more **marbled** appearance we add metallic powders or liquid pigments to batches epoxy:

This design calls for at least two colors although more can be added - just remember with multiple different colors that need tended to, one should have help and proper planning. Typically these floors have an equal percentage of colors throughout the project (ex: 33% blue, 33% green, 33% white). Those percentages can vary if desired. Take your first batch of colored epoxy and do dollops throughout the project. Grab your second batch of color and do dollops in the remaining bare spots of the project. Continue this process with each additional color. With your foam roller, begin to lightly blend your dollops ensuring all bare spots are covered. Do not over mix the blends otherwise it will appear more muddled than marbled. Be prepared with an extra foam roller if you've overblended and want to eliminate the transfer of overblended colors.

- Glitters - We encourage applying glitters to clear batches of epoxy so that it sits within the depths of the epoxy. Glitter broadcasted on the surface will yield a textured surface.
- There are certainly many other techniques out there! Check out our **YouTube Channel** for more inspiration.

Step 6: The final touches!

Drips

As the epoxy begins to set up, take a stir stick or putty knife and run it underneath the edges to remove any excess drips. Repeat this process until the drips have significantly slowed down leaving you with a slightly saggy-epoxy lip on the edge. With a gloved hand, saturate your fingertips with isopropyl alcohol and rub the drips smoothly onto the underbelly of the countertop edge. When the epoxy has stopped dripping but is still pliable - this is the time to act.

If you are not able to babysit these drips for whatever purpose, no worries! Within 12-24 hours the epoxy will be cured enough to either use your torch with a razor blade or if it's quite cured at this point use an oscillating tool to remove these drips.

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Dual coat and FX Shield

Typically we like to apply a clear Flood coat on top of our aesthetic finish to not only protect the design but also to give some added dimension by spraying some of our metallic powders in the clear coat as well! This is not required, but it is something we strongly encourage.

Here's a great tip: If you did a flawless finish but there is an imperfection such as a bug falling in your countertop; your cat leaves a footprint; or there's one tiny tacky spot on the horizontal substrate but everything else cured fine; etc - we have the solution. In your clear coat application, you can lay down some veining or spray those metallic powders on top of those imperfections to hide or camouflage them! Dual coats aren't required but they will also help add an additional look of quality and dimension to your project.

Additionally, you can apply our **FX Shield** to your top coat. This product is a nano coating that you buff into your countertop for added protection to temporarily raise the heat resistance of your countertops while preventing a build up of dirt or grime. It is to be applied annually depending on the amount of traffic your tabletops receive. Read the description for proper application.

Matte Finish

Typically we sand anywhere from a 320 (very matte finish) - 1000 (semi-gloss finish) grit paper. You certainly can go into the high grits for a more reflective finish but be advised that going above 1000 grit does take time and knowledge of proper sanding. Do your research prior to taking on this endeavor.

Please note that clear applications will appear like frosted glass and will likely block visibility of your designs from underneath. For light colored applications that receive a matte sanding, we strongly encourage the application of the **FX Shield** for additional protection.

Clean Up

Once your pours are complete, start cleaning up the utilized tools. Be mindful of epoxy on the floor as it can easily be tracked throughout the working space. Keep all masking there until the job is complete.

Use regular household cleaning products moving forward to clean your countertops! Stay away from strong dyes or harsh chemicals as this can satin and damage the surface. Remember, although very stain/heat/and UV resistant - epoxy is not indestructible. Luckily due to the nature of epoxy, if any minimal damage occurs in the future that you are wanting to correct, simply doing a light buffing can possibly remove those imperfections. Bear in mind buffing can remove the high gloss finish. If the damage is not able to be fixed with a light buffing or if you simply want that high gloss back - conduct a clear Flood coat on top and have it looking brand new again.