

Finale Concrete Countertop System™

DIY concrete countertops the FAST, EASY and FOOLPROOF way.

INSTRUCTIONS for Laminate, Plywood & Stone

For resurfacing existing concrete countertops using Finale, see https://concretecountertopinstitute.com/free-training/how-to-restore-or-resurface-a-concrete-countertop-with-finale/

Version 3.0

IMPORTANT: Watch all instructional videos at www.ConcreteCountertopInstitute.com/Finale

Planning

When planning your project, here are some things to keep in mind:

- Finale is for use in indoor applications such as kitchen and bathroom countertops, furniture and fireplace surrounds. It cannot be used outdoors or in continuously wet areas such as shower panels and inside sinks.
- Apply Finale at 60-90° F with relative humidity between 35% and 60%. Higher temperatures speed curing.
- A full kit of Finale will cover approximately 45 square feet with three thin coats.
- 2.75 cups of mixed Finale (2 cups Concrete plus 180 mL liquid) will cover approximately 9 square feet.
- The most Finale that can realistically be mixed in a mixing bowl with a cake mixer is 8.25 cups (27 square feet).
- Finale has about a 1 hour working time.
- Backsplashes and edges take a lot more time to cover than large, flat surfaces.
- Each contiguous section of countertop should be covered as quickly as possible. Do not cover part of a section and let that coat dry before proceeding with the rest of the section.
- You must wait until each coat (except the last) is completely dry before proceeding. Typical drying time is 3-6 hours, but it could be longer in very cold, damp environments or when the coats are too thick.

Evaluate the square footage and layout of your project and develop a plan for which sections you will cover with each batch. For example:

- If your entire countertop surface is less than about 27 square feet, you can realistically cover the entire surface with a single batch.
- If you have more than about 27 square feet, but the countertops are broken up into sections, you could cover part of the sections with one batch and part with other batch(es).
- If you have long runs of backsplashes, you might want to cover all backsplashes first, and then cover the flat surfaces and edges.
- Your plan for working alone will be different than your plan for working with a helper. If you have a helper and a very large contiguous section of countertop to cover, you could mix up a 27 square foot batch, and when you get about halfway through applying that batch, have your helper mix up another batch.

0 Gather Tools and Materials

See www.ConcreteCountertopInstitute.com/FinaleAccessories for links to purchase many of these items.

- Personal protection
 - Rubber gloves
 - Safety glasses
 - Dust mask (N95)
- Cleaning products
 - o Household all-purpose detergent/cleaner such as Windex, Simple Green or similar
 - Paper towels
 - Microfiber cloths
 - Vacuum cleaner/shop vacuum
 - o Isopropyl (rubbing) alcohol, at least 70% concentration
- Prep tools
 - Screwdrivers, adjustable wrenches, pliers (to remove sink)
 - Utility knife or box cutter (to cut caulk from wall and to score damaged laminate)
 - Putty knife or metal scraper (to scrape off caulk)
 - o For granite: Spray bottle for water
- Repair materials (if you need to fill chips, gaps, holes, seams)
 - Kneadable epoxy putty stick or exterior grade wood filler
 - 80 or 120 grit sandpaper for electric sander, to smooth hardened epoxy
 - o For granite: 2 part epoxy adhesive if you need to fill cracks or seams
- Replacement materials (necessary only if part of laminate countertop needs replacing)
 - Oscillating multitool
 - o Plywood
 - Exterior deck screws
- Surface preparation materials
 - CCI 60 grit diamond hand pad (included in Kit)
 - Handheld electric sander (palm or random orbit) with 60 grit sandpaper
 - If you have granite or glossy laminate: A CCI 5" 100 grit diamond pad and 5" random orbit sander will be required
- Masking materials
 - Painter's tape for back wall
 - Plastic sheeting
 - Tarps/floor protectant
- Priming
 - 1/4" or 3/8" nap roller
 - o 1" paint brush
- Concrete mixing
 - Mixing bowl (2 to 3 quarts/liters)
 - Rubber/silicone spatula
 - Handheld cake mixer
 - Measuring spoons
 - o 60mL plastic syringe (included in Kit)
 - Measuring cups (1 cup for Concrete)
 - Sponge or towel
 - Measuring cup for mix water (4-8 cups)
 - Bucket for rinse water (2 quarts/liters or larger)
- Concrete application
 - Silicone kitchen spatula or 2" plastic putty knife

- Plastic trowel (included in Kit)
- Small plastic container with handle
- CCI 60 grit diamond hand pad (included in Kit)
- o 220 grit sandpaper or drywall sanding block

1a Surface Preparation

1. Disconnect/remove appliances

- Clear everything off the countertops.
- Disconnect and remove the kitchen sink and all drop-in appliances (like a cook top). Move freestanding appliances out of the way.
- Always turn off water and power before working on plumbing or electrical appliances. Hire a licensed professional if you are uncomfortable or incapable of doing this yourself.
- Drop-in sinks and cooktops must be removed so they are re-installed over the sealed Finale surface. Leaving the sink in place and applying Finale around it will result in a lower quality job that is more difficult to do, and there is a greater chance of Finale chipping around the appliances.

2. Remove caulk:

- Use a utility knife to cut caulk away from walls.
- Use a putty knife to scrape all traces of caulk and caulk residue off the old countertop surfaces. The primer will not bond to old caulk, which can lead to future delamination and chipping.
- Areas commonly caulked are around and under the sink, under drop-in cook tops, and along walls and backsplashes.

3. Clean countertops:

- It's imperative that the surface is spotlessly clean before it is honed. This applies for both laminate and granite.
- Use a degreasing detergent such as Windex or Greased Lightning to completely remove all traces of oil and grease residue, and other dirt from existing laminate surfaces. It's very important that the surface is completely free of all oil, grease and dirt. Scrubbing with a green abrasive scrubbing pad helps.
- Rinse with clear water and let surface dry.

Normally you can proceed to the following step 5. However, if the laminate or stone is damaged and needs to be repaired or replaced, use the following instructions for step 4 before proceeding to the next step of preparing edges and scuffing the surface.

4a. (Laminate) Optional: Repair damaged laminate:

- Remove loose and damaged laminate.
 - Scratched and burned (with no blistering, bubbling or delamination) laminate does not need to be removed.
 - Bubbled laminate that has lifted and become loose can be detected by tapping on the surface. Areas
 that are loose sound tinny and hollow when tapped; often movement can be felt where those areas are
 pressed. All loose, unbonded and bubbled laminate must be cut away and removed.
 - Use a sharp utility knife to repeatedly score the laminate in the same line around the damage, ensuring only sound, well bonded laminate remains. Peel up the damaged laminate.
- In the next steps, you will repair any areas where you had to remove laminate, as well as ensure a smooth and flat surface. It is important to get the surface as smooth and flat as possible because ridges, dips, holes, and bumps will telegraph through the concrete finish. You can use a kneadable epoxy putty stick or exterior grade wood filler. We recommend epoxy because it cures much faster to a very hard surface.

- Put on gloves. Fill deep chips, gaps, and holes with kneadable epoxy putty or exterior grade wood filler. Sand flush once hardened. You can use a 60 grit diamond hand pad, but 80 or 120 grit sandpaper on a handheld electric sander will be faster and easier.
- Fill seams and cut edges of laminate with epoxy putty or exterior grade wood filler. Eliminate gaps, openings, uneven surfaces, and abrupt thickness changes. Let dry completely and sand flush with existing laminate surface using a 60 grit diamond hand pad or 80 or 120 grit sandpaper on a palm sander.

Optional: If part of the countertop is so damaged that it needs replacing, you can use exterior grade plywood:

- Cut away and remove all traces of soggy, swollen, or rotted wood substrate and replace with exterior grade plywood, ensuring the plywood's top surface is flush with existing laminate surface.
 - 2 layers of sanded ¾" plywood are often close to the same thickness as the original laminate countertop.
 Screw the plywood sheets together, and to the cabinets, with exterior grade deck screws that won't rust.
 - Ensure the surfaces of the new plywood very closely match that of the adjacent laminate. Variations in height will telegraph through Finale.

4b. (Stone) Optional: Repair damaged stone:

- In the next steps, you will repair any areas where the stone surface is chipped or cracked. It is important to get the surface as smooth and flat as possible because ridges, dips, holes, and bumps will telegraph through the concrete finish. Use a kneadable epoxy putty, because it bonds well and cures much faster to a very hard surface. Cracks can be filled with high strength epoxy glue.
- Put on gloves. Fill deep chips, gaps, and holes with kneadable epoxy. Sand flush once hardened. You can use a 60 grit diamond hand pad, but 80 or 120 grit sandpaper on a handheld electric sander will be faster and easier.

5a. (Laminate) Prepare edges and scuff sand laminate:

- Wear eye and dust protection
- Round over all sharp edges and corners
 - Sharp edges and corners are prone to chipping. They must be rounded over to ensure a good bond with the concrete.
 - Use an electric sander with 60 grit or coarser sandpaper to create a 1/8" (3mm) or greater radius on all corners and edges. Well rounded edges help make the corners less chip prone.
 - It is possible to use a 60 grit diamond hand pad, however it will take a lot longer and require a lot of "elbow grease".
- Thoroughly scuff and de-gloss the entire laminate surface that will be coated with concrete, including backsplashes and edges.
 - o For older or matte laminate, use a 60 grit diamond hand pad.
 - For glossy laminate, a 100 grit diamond pad on a random orbit sander is required. Do not try to use sandpaper. Diamonds are required to scuff glossy laminate properly. Use firm pressure. Dust should form, and the entire surface should look scuffed and slightly dull.

5b. (Stone) Prepare edges and damp hone the stone surface:

- Wear eye and dust protection
- Round over all sharp edges and corners
 - Sharp edges and corners are prone to chipping. They must be rounded over to ensure a good bond with the concrete.
 - Use a 5" random-orbit electric sander with 100 grit diamond pad to create a 1/8" (3mm) or greater radius on all corners and edges. Well rounded edges help make the corners less chip prone.
 - It is possible to use a 60 grit diamond hand pad, however it will take a lot longer and require a lot of "elbow grease".

- Thoroughly hone to dull the entire polished surface that will be coated with concrete, including backsplashes and edges.
 - Use a 100 grit diamond pad on an electric sander and use a 60 grit diamond hand pad in hard to reach areas. Do not try to use sandpaper. Only diamonds can scuff polished stone properly.
 - Use firm pressure and spray a small amount of water on the surface while sanding to prevent dust from forming.
 - The surface should look completely scuffed and dull. It is *extremely important that 100% of the surface is honed, dulled, and no longer has any shiny areas*.

6. Clean countertops again:

- If you have any plywood surfaces, do not wash or get them wet. Vacuum them off and wipe down with a damp microfiber cloth to remove sanding dust.
- For laminate and stone surfaces:
 - Wipe up dust or slurry with a damp, clean cloth.
 - o Wash them again with a household cleaner, then rinse thoroughly with clear water.
 - Wipe down with 70% or higher isopropyl alcohol (rubbing alcohol) using a lint-free microfiber cloth to ensure surface is completely free of all grease, dirt, and dust.

7. Mask walls, cabinets, and floor.

1b Priming

Apply an even layer of primer using a ¼" nap roller:

- Put on gloves and eye protection.
- Shake primer well. It is thick and gelled.
- Pour out some primer onto the laminate and spread with a ¼" nap roller.
 - o Pour about ¼ cup at a time. If you try to spread too much, the roller will not roll.
- Roll or brush out to a thin, even coat. Treat it like a heavy coat of paint, and ensure full, 100% coverage.
 - Make sure there are no drips, puddles, or bubbles in the finish. You will see roller texture.
 - o A brush makes priming corners and tight areas easy.
- The primer is transparent pink, so expect to see the underlying surface through the primer.
- Allow to dry. The primer goes on light pink and will darken to a coral color as it dries.
- If you missed some spots or want to apply more, wait until the primer is fully dry and there are no damp or wet primer areas. This usually takes about 1 hour or so.
- Laminate and granite surfaces should have 1 coat applied. Bare wood or bare particle board should have at least 3 primer coats applied.
- You may proceed with applying Finale concrete topping as soon as the primer layer is completely dry, in about 1 to 2 hours. It will feel slightly tacky when dry but will not transfer to your fingers.
- It is best to apply the first coat of Finale within 2 hours after the last primer coat was applied.

Clean threads of Primer bottle with water thoroughly before replacing cap. Clean roller thoroughly with water.

2a Measuring and Mixing

Cleaning and disposal:

- As you work with Finale Concrete mix, be sure to clean all tools promptly, then dry them before using again.
 Dried, hardened concrete mix cannot be removed. It does not just dry, it undergoes an irreversible chemical reaction.
- Rinsing small amounts of concrete residue from tools down the drain is fine. If you have larger quantities of
 concrete left over, DO NOT pour down the drain. Scrape the excess into a sturdy plastic bag and dispose of in
 the trash.

Measure ingredients:

- Be precise and consistent. Color consistency depends upon every batch being as identical as possible to all others. Variations in the amount of pigment, dry Finale mix, and even the amount of water can affect the shade or intensity of the color you create.
- 2.75 cups of mixed Finale (2 cups Concrete plus 180 mL liquid) will cover approximately 9 square feet. The instructions below are for 9 square feet. Adjust as needed for your square footage.
- Put on gloves and eye protection.
- Measure your water, color and Finale dry concrete mix. Take care to follow the mix order below:
 - Measure 180 mL of cool tap water using the large plastic syringe. Do not use warm or hot water.
 - o Adjust the amount of water to account for the amount of liquid color.
 - First measure and pour 180 mL of water into a container, then remove the same amount of water as you will measure out for the liquid color. For example, if your color requires 2 Tbsp (30 mL) of color per 180 mL of water, remove 2 Tbsp (30 mL) of water from the container.
 - o Shake color well for at least 2 minutes.
 - Measure your color into the mixing bowl (for example, 2 Tbsp).
 - Slowly pour the water into the mixing bowl, pouring it over the measuring spoon used for the color, so that you rinse off the spoon completely.
 - o Put on a dust mask.
 - Measure 2 level cups of dry concrete mix. Use the same technique you would use to measure flour. Carefully add each cup to the mixing bowl, taking care not to generate too much dust. Gently fold the powder into the mix using a spatula until it is wetted out. Make sure that NO powder remains on the sides of the bowl.

Mix, then let rest 5 minutes:

- Mix thoroughly.
 - Use a handheld cake mixer to blend the mixture for at least 60 seconds after all the ingredients are combined. Mix at the highest speed possible without splashing the mixture.
 - White specks in the surface indicate inadequate mixing. You can mix for more than 60 seconds if required.
- Let rest for at least 5 minutes after the mix is completely blended. Do not skip this step. It is essential to the chemical reaction and the consistency of the concrete.
- Once mixed you have about an hour to use up the material. The mix will be smooth, thick, and creamy at first, and then thicken a bit over time. That is OK. The consistency will start out like butter cream frosting, and gradually thicken. **DO NOT ADD WATER.** Take care when rinsing tools that you dry them before using again.
- Do not use any mixed material that is more than 1 hour old.

2b Application

Put on gloves and eye protection.

You will apply at least 3 layers of Finale. All coats of Finale will be applied mainly with a trowel; a silicone spatula may be used on edges and backsplashes.

For each layer:

- Your goal is to spread the material in a thin layer thinner than a credit card (about 1/32", or 0.8mm). The first coat can be applied a bit thicker than subsequent coats, which can be a bit thinner.
- Cover the backsplash first, from top to bottom. You may need to use your finger to even out the mix in the inside corner.
- Cover the flat countertop surface next, from one side to the other, working in narrow sections, front to back.
- Work in narrow sections on the flat surface. Do not attempt the cover the entire surface at once.
- Cover the edges last.
- Spread the material into a thin, even layer. Try not to spread too thin or too thick. Each layer should be thin and about the thickness of a credit card, or a bit thinner.
- It is okay to see ridges, trowel marks and bubbles. You may feel that the layer looks terrible. Do not attempt to make it perfect. The final layer will be hand rubbed to create a beautiful surface.
- DO NOT trowel the material once it starts to dull and dry.

Applying Finale with a trowel:

- First use a spatula or putty knife to apply Finale to the backsplash.
- Scoop about ¼ ½ cup of mix onto the flat surface.
- Use the narrow end of the trowel to spread the mix out, then use the long end of the trowel to smooth it to credit card thickness.
- Keep the entire long edge in firm contact with the surface and work in sweeping motions.
- Keep the trowel at a very shallow angle, and glide it, don't scrape it, especially on the 2nd and 3rd coats.
- Lightly spray a small amount of water on any concrete that is sticky, dull, or tearing to help spread it. Do not apply too much water, and only spray water if it's needed.
- You may need to scrape off accumulated concrete from the trowel edges from time to time.
- Cover edges last, using a spatula or putty knife. Take care to build up the corners; do not bevel or scrape them.

Let dry:

- The 1st and 2nd coats must be completely dry before sanding and applying another coat. The concrete will lighten in color as it dries.
- Drying can take 3 to 6 hours per coat, depending upon coat thickness, ambient temperature, and humidity.
- Best results occur when all but the last coat is allowed to dry for as long as possible (usually overnight, but it can be 24 hours or more).
- Do not apply another coat too soon. There must be no damp spots, or areas that feel cold and clammy.
- Temperature and humidity will significantly affect drying time. The time required in cold, damp environments will be much longer than in warm, dry environments.

Sanding high spots:

- Each application will leave an uneven surface and will have thinner and thicker areas. Sanding should only remove some of the thicker areas without removing any material from the thinner areas. Each new application builds up the thinner areas, increasing their thickness. At the same time, new thicker areas will also be created, and the process of application, sanding and reapplication is continued. The last coat should focus on filling the remaining low spots without creating a lot of thick, uneven areas. This makes creating a smooth surface much easier.
- Put on a dust mask.
- Use a 60-grit diamond hand pad for sanding. Do not use a power sander, as these are too aggressive, making it too easy to sand through thin areas and edges.
- Sand off only the high spots. Most of the surface (the low spots) actually will remain untouched. Rough shaping is sufficient for the first few coats. Take care not to sand through the layer of concrete finish. Unsanded areas represent low spots that need to be filled with more material. It is better to sand less and leave some higher spots than it is to over sand and remove too much material.
- Be very careful with edges and corners. Use gentle sweeping motions to round the edges, not long sawing motions. If some pink primer becomes visible, it can be covered up with the next coat of concrete.
- For the 1st and 2nd coats, sand only the highest spots, and do not try to make the surface flat or smooth. After going over the whole surface, about 90% of the surface should remain unsanded.
- Take care not to sand through the surface.
- Do not sand the last coat. This coat will be hand rubbed, but it can also be sanded the most to create a smooth surface that still preserves the subtle texture of a troweled surface.
- The exception to this is sanding of the edges. Sanding with the diamond hand pad before hand-rubbing helps to shape them and creates more even round overs. Hand rub the edges after sanding.

Repeat application after each sanding:

- First mix your next batch of concrete so that it can sit for 5 minutes while you clean the surface.
- Vacuum up the dust and gently wipe off sanding residue with a damp microfiber cloth. Do not scrub with the microfiber cloth, because the concrete is still very soft and chalky.
- Thoroughly pre-dampen the sanded concrete surface by spraying a mist of water over the surface. The concrete should be evenly damp and dark with moisture.
 - Spray the concrete so it's evenly dark and damp with moisture. Let this sit for about 30 seconds as the
 concrete absorbs the moisture. Spray it again if there are dry areas, to evenly moisten the surface. Let
 this sit for another 30 seconds, then begin applying Finale. <u>DO NOT apply Finale over wet concrete!</u>
 - Use a clean, dry cloth to blot-up any puddles or very wet areas. The concrete should be damp with moisture but without wet spots that are shiny with surface water.
- You should spray the surface very slightly as you work to keep it visibly dark and damp, because very dry concrete can make spreading the next layer difficult. The concrete should never be wet, however.
- Apply the next coat of concrete, focusing on filling in low spots and creating a relatively even, flat surface.
- Lightly spray a small amount of water on any concrete that is sticky, dull, or tearing. Do not apply too much water, and only spray water if it's needed.

Hand rub the final coat (typically the 3rd coat):

- After you apply the final coat, it will still have ridges, bubbles, high spots and low spots. You may think it still looks terrible. **Don't panic!** On this coat, you will carefully monitor drying and hand rub the finish before it dries out and becomes hard. Drying time for this coat can be as short as 1 hour, depending upon ambient temperature and humidity levels, or it could take several hours.
- Timing is critical! Keep an eye on the surface and don't leave the concrete to dry unattended.
- The concrete is ready for hand rubbing when the surface is completely dull and looks blotchy (lighter and darker areas), with about 50% (or a bit less) of the surface lighter in color, and the rest is slightly darker. It is best to start rubbing a little too early than to wait too long. Waiting until fully dry is too late, and you will need to apply another coat.
 - o Test a darker area by very gently rubbing it with your finger. If it softens or gets shiny, it's not ready yet.
- Put on gloves. You can use your gloved hand or the foam back of the 60 grit diamond hand pad to smooth the surface.
 - Surfaces that are very uneven benefit from first rubbing with the back of a hand pad to knock down and soften the high spots, then switching to hand-rubbing to blend and smooth the surface.
- Spray a small area with a mist of water to wet and dampen the concrete and rub high spots to smooth them down.
- The softened and rubbed concrete is malleable and will be like clay. Do not add too much water, as you don't want the concrete to soften to a slurry consistency.
- Low spots or scratches can be filled in with material from higher spots.
- Hand rub until you are satisfied with the surface. It will look slate-like and have natural variations in surface texture and shading.
- Hand rub the entire surface, so that you fill in any tiny, unseen pinholes.

3 Sealing and Care

Cure overnight then sand:

- Cure Finale overnight before proceeding.
- Put on gloves, a dust mask and eye protection.
- Lightly sand with 220 grit sandpaper or a drywall sanding block. Use very light pressure to shape edges, taking care not to sand through the concrete on the edges.

Prepare for sealing:

- Remove and replace the masking tape on the walls. Use a utility knife to cut the tape along the edge of the concrete to prevent it from flaking off when removing the tape.
- Vacuum up the dust and gently wipe off sanding residue with a damp microfiber cloth. Do not scrub with the microfiber cloth, because Finale is still soft at this point.

Seal:

- Finale can now be sealed. Ovation Concrete Countertop Sealer is recommended.
- Please see sealer instructions.

Use care for the first 7 days:

- Finale is a specialized form of concrete that continues to cure and gain strength, hardness and water resistance
 after it dries. You will notice Finale is relatively soft right after it dries, which makes sanding fast and easy. It gets
 stronger and harder over the next several days after application. Finale is concrete, and it cures and achieves full
 strength and hardness in about two to four weeks, depending upon ambient temperatures. Environments that
 are continuously warm will speed curing.
- **Do not place anything heavy or sharp on the surface for 7 days after sealing**, however the countertops may be gently used with care 24 hours after sealing.
- Sinks and drop-in cooktops may be reinstalled 24 hours after sealing.
- Caulking along the backsplash and wall may be done 24 hours after sealing.