

Kit Includes:

- □ 2-25lb Envision Concrete Countertop Mix
- □ 2-Liquid Admixture/Hand Pack Vials
- □ 2-Powdered Admixture/Casting Packets
- □ 8-Color Pigments
- Envision Filler/Hardener

- □ Envision Sealer-Part A & Part B
- □ Reinforcing Mesh
- Polishing Pad
- □ 2-Foam Faucet Knock-outs
- □ Measuring Cup

Tools Needed:

- Tape Measure
- Pencil
- Rubber Gloves
- White Rags
- Caulk & Gun
- Double Sided Tape
- Adjustable Razor Knife
- Scale
- Mixing Drill with Paddle
- Metal Trowel
- 2"- 4" Drywall or Putty Knife
- Acetone
- Orbital Sander
- 80-220 grit Sand Paper
- Orbital Polisher 3000rpm+
- Plastic Sheeting

Envision Concrete Countertop Fabrication Instructions:

1) Measurement and Mold Layout

- a) Take lots of measurements. Make a drawing of the countertop showing size, shape, and seams. Account for variations in walls and cabinets. It is recommended that a template is made from furring strips, cardboard, or packaging paper replicating the exact shape.
- b) There are many different surfaces that can be used for the mold deck. Melamine, H.D.O., or any coated wood surface will work. Melamine is the easiest to find and the least expensive. Remember, whatever surface texture you have on your mold deck will transfer to your countertop face.
- c) Draw out countertop dimensions on mold deck. Using foam, coated wood, or rubber; create mold edge in desired thickness. Use caulk, hot glue gun, double-sided tape, or screws to attach mold edges to mold deck. Minimum countertop thickness is 1"solid. Standard thickness is 2" with a 1" foam core. With Envisions lightweight system 3" or 4" thick countertops can be achieved by adding a thicker foam core.
- d) If installing a sink, get dimensions of sink or use template that comes in sink box to make a sink knock out. Use foam to cut out shape of sink. Mount foam knockout in desired sink location using caulk, hot glue gun, or double sided tape. If foam is porous use packaging tape on sides to create a smooth edge or the porous texture will come through. Do not use wood as a knockout.
- e) If using a sink mold to create an integrated sink, place in mold at desired location and adhere using caulk. Make sure to caulk a tight bead as excess caulk will make mold removal more difficult and leave caulk lines. For mold ideas and catalog visit: www.envisionconcretecountertops.com
- f) It is important that you know your faucets hole pattern when you are creating the mold. Use the foam faucet knockouts provided in the kit to create holes for hot and cold water lines, soap dispenser, spray nozzle, etc. Install the sink knockouts using caulk, hot glue gun, or double sided tape. If the faucet has not been previously selected holes may be drilled using standard masonry bits.

- g) **REMEMBER** you need to be thinking in reverse, everything you do in the mold is going to be reversed when you flip the countertop over.
- h) Concrete allows for creativity. Add something to make your countertop different. A radius, a custom edge, a uniquely shaped sink, inlay, etc.
- Make sure that you use caulk to seal up any holes where mix might leak out of the mold. After mold construction is completed apply mold release. WD40 wiped onto mold face with a clean rag is quick and easy. Cover mold with plastic until application begins.

2) Mixing

a) Veined / Hand-Packed Finish

- i) Using (2) two- 5 gallon Envision buckets, weigh 3.6 lbs. of water into each bucket. (1 ¼" of water in a 5 gallon bucket.)
- ii) Add (1) one vial labeled "Liquid Admixture" to each bucket of water.
- iii) Refer to color chart to determine desired color. For the two-tone color variations chose two shades of the same color from the chart, or create your own custom colors. Add one color to one bucket and the other color to the next and mix color gently into water.
- iv) Add (1) one- 25 lb. bag of Envision Concrete Countertop Mix to each bucket and blend thoroughly with drill and mixing paddle. Mix until consistency of play dough.
- v) Combine the two colors one handful at a time into clean bucket and mix gently. The more you mix the less variation you will have in your two colors. Only combine 8 to 10 handfuls at a time. This is very important because once the two colors are combined you cannot add more water or you will blend the colors. If the colors are separate you can still add small amounts of water to keep the mix workable.
- vi) For backing mix, blend the same way you would for Polished or Sanded Finish. If you have 25 lbs. of mix or more left in your bucket after hand packing, open and pour in (1) one packet labeled "Powdered Ad Mixture" to left over material and mix for approximately 3 min. You may need to add a little more water until the mix becomes fluid enough to pour.

b) Polished or Sanded Finish

- i) Add 3.6 lbs. water per 25 lbs. of Envision Concrete Countertop Mix. (1 1/4" of water in a 5 gallon bucket.)
- ii) Add (1) one packet labeled "Powdered Admixture" per 25lb. of mix to water and mix gently.
- iii) Refer to color chart to determine desired color, or create your own custom color, add selected color to water and mix gently.
- iv) Add mix to water slowly and mix thoroughly for approximately 3 minutes. Mix should be about the consistency of cake batter.
- v) Be consistent in water ratio through entire project, as variations can cause color differences.

3) Application- Veined / Hand-Packed Finish

- a) Pull a large handful of mix from bucket and start pressing mix gently into mold face. The harder you press the less texture or voids you will have on the face of your countertop, the lighter you press the more texture or voids you'll have, there is no right or wrong. Your face mix thickness after hand packing should be between 3/16" to 3/8".
- b) To create the veined effect form the mix into lines/veins in the shape or form that is desired. Work mix up against lines/veins leaving a small void or opening through which mold face can be seen.

- c) Hand pack mold until mold face is completely covered except for veined areas, hand pack mold edges so they are completely covered. Come back and gently apply thin layer of hand pack mix over veined areas, being careful not to push mix all the way to mold face. If pressed to hard veins will fill and disappear. Gauge mold thickness making sure your face coat is between 3/16" to 3/8" thick.
- d) After covering all the veins with a thin layer of hand pack mix add (1) one packet labeled "Powdered Ad- mixture" to leftover hand pack mix. Blend with mixing drill and paddle until mix is fluid enough to pour. If necessary, up to ½ pound of water may be added. Depending on time, temperature, and humidity mix may become too dry to re-blend. It's to dry if mix remains clumpy after blending.
- e) Cast 1/8" of mix into mold and use trowel to spread mix evenly across mold. Layout mesh on top of mix and trowel mesh until it's completely covered with mix. Gauge mold depth to make sure thickness is at least 1/2"-5/8".
- f) Gently press 1" foam core into mix and move slowly side to side to remove majority of air. Make sure foam core is cut at least 1 ½" from all sides of mold. Wait 30-60 minutes before pouring mix over the back of the foam. This will insure that the foam is adhered to the mix and will reduce the risk of having the foam float.
- g) Cast mix over the foam until mold is full. Use a straight edge to screed off excess material.
- h) If using a sink mold to create an integrated sink follow same directions listed above except increase hand pack thickness to 1/2" 5/8" over sink mold. Increase material in mesh and cast application so that final sink thickness is ³/₄" to 1" thick. Keep in mind drain location and opening and use a foam knockout. Spread Envision 1" AR Glass Fiber onto back of bowl and use hand to smooth out and lay down the glass. Put enough AR Glass down to cover the entire bowl as well as across the return.
- i) To completely finish backside wait 45 minutes to 1 hour and hard trowel. Trowel as level as possible as this is what will sit on the cabinets.
- j) Cover countertop with plastic. Your environment will effect curing, room temperature is ideal. The drier and hotter your climate the faster the countertop will dry or cure. The cooler the temperature and higher the humidity the slower it will cure, slower is better. Drying too fast can curl the countertop. If your countertop curls simply flip it over and recover with plastic. The longer you leave it covered the less curling you will experience. Add moisture if you live in a dry climate and heat if it's below 40 degrees to aid in curing process. Do not allow temperature to go below 40 degrees. Waiting 3-7 days before uncovering will ensure the countertop has had the proper time to cure.

4) Application- Sanded/ Polished Finish

- a) Cast mix into mold until it is approximately 5/8" thick. Brush mix up sides or edges of mold until they are completely covered with mix. Vibration helps to eliminate bug holds. Vibco Pneumatic Ball Vibrator placed on mold deck as mix is being poured into mold works best. A reciprocating saw with the blade removed can be used to create vibration.
- b) Lay mesh down and trowel into mix. Press 1" foam core on top of mix and move gently side to side to release any trapped air. Make sure foam core is cut at least 1 ½" from all sides of mold.
- c) The foam should remain 1/2" to 5/8" from mold face. Use cross brace to keep foam from floating to surface or wait 30-60 minutes before pouring mix over the back of the foam. This will insure that the foam is adhered to the mix and will reduce the risk of having the foam float. Cast mix over foam until mold is full.
- d) Use a straight edge to screed excess mix from back of part.
- e) If using a sink mold to create an integrated sink apply a face coat of mix 1/16" to 1/8" thick over sink by hand with a paint brush or sprayed with a drywall hopper. Wait 45-60 minutes for material to stiffen up and then apply thin coat by hand over face mix, cut mesh to fit and cover sink, apply final coat over mesh so that sink thickness is ³/₄" to 1" thick. Spread Envision 1" AR Glass Fiber onto back of bowl and use hand to smooth out and lay down the glass. Put enough AR Glass down to cover the entire bowl as well as across the return. Keep in mind drain location and opening and use a foam knockout.

- f) To completely finish backside wait 45 minutes to 1 hour and hard trowel. Trowel as level as possible as this is what will sit on the cabinets.
- g) Cover countertop with plastic. Your environment will effect curing, room temperature is ideal. The drier and hotter your climate the faster the countertop will dry or cure, the cooler the temperature and higher the humidity the slower it will cure, slower is better. Drying to fast can curl the countertop. If your countertop curls simply flip it over and recover with plastic. The longer you leave it covered the less curling you will experience. Add moisture if you live in a dry climate and heat if it's below 40 degrees to aid in curing. Waiting 3-7 days before uncovering will ensure the countertop has had the proper time to cure.

5) De-molding and Touch-Up

- a) If it is necessary to de-mold and begin work before the recommended 3-7 day cure time make sure that the plastic is re-applied and moisture introduced as soon as work is completed.
- b) Before de-molding check the back of the part to make sure that it is level. If there are any high spots sand down with low grit sand paper. Slightly low spots are usually fine and do not require filling.
- c) Remove edges from mold and carefully turn countertop over. Be careful not to put excessive weight on corners and edges. Pay close attention to weak spots like the front and back of sink areas. Always transport the countertop vertically to prevent cracking. To pull a sink mold first remove all caulk between the mold and concrete. Blowing compressed air in between mold and concrete can release mold. If mold will not release, gentle tapping with a rubber mallet on the drain opening can help. Place blocks under countertop so countertop doesn't sit on sink.

6) Finishing- Veined / Hand Packed Finish

- a) Wait at least one hour before you begin filling to let some of the moisture escape the countertop.
- b) Mix Envision Filler with color pigment to achieve desired color. Filler does not change color when it dries so what you see is what you get.
- c) Add hardener from tube. You should add about a pea size of hardener to each golf ball size of filler. Your working time is between 1-5 minutes depending on how much hardener you use. It is very important that you do not try to harden everything at once. Start out with small amounts and work your way up. You do not have to coat the entire countertop in one application, do small sections at a time.
- d) Spread the filler on countertop using scraper, drywall knife, putty knife, etc. You can use anything with a metal straight edge on it.
- e) Wait until filler begins to tack up and wipe off excess filler with acetone and a clean rag. Be careful not to rub so hard that you pull filler out of veins and voids. The more you wipe the less sanding you will have to do. Do not wait more than 10 minutes before wiping it off or you may have to sand it off. Make sure you wipe it off so that the only filler left is in the veins and voids.
- f) Go over the entire countertop several times with filler and acetone until all the veins and voids are filled.
- g) Sand countertop using an electric or air dual action sander with 120 or 150 grit sandpaper. It is recommended to sand between each application of filler but not necessary. Sand enough to remove all excess filler that was left over after cleaning with acetone. A palm or vibrating sander can be used but will take longer than a dual action sander.
- h) After countertop has been completely filled and sanded with 120 or 150 grit do a final sanding using 220 grit sandpaper to remove any small flaws or scratches.
- i) Polish the entire countertop using supplied polishing pad. The higher the speed of your polisher the better the finish, anything higher than 3000 RPM will work. For example, a car polisher will work better than an orbital sander.

7) Finishing- Polished Finish

- a) After waiting prescribed curing time and de-molding countertop wait at least 24 for hours before polishing. The longer you wait before polishing the better your finish will be.
- b) Go over countertop with provided polishing pad until desired sheen is achieved.
- c) If bug holes are present, and are not desired, you can tint Envision Filler to match countertop and fill and finish as described above.

8) Finishing- Sanded Finish

- a) After waiting prescribed curing time and de-molding countertop start sanding as soon as possible. The sooner you begin sanding the easier it will be to expose the limestone aggregate.
- b) Sand with 80-180 grit sandpaper to expose limestone aggregate, the lower the grit of the sandpaper the more aggregate will be exposed. Diamond pads may also be used, but are not necessary.
- c) If bug holes are present, and are not desired, you can tint Envision Filler to match countertop and fill and finish as described above.
- d) Sand with 220 grit sandpaper and then polish using provided pad until desired finish is achieved. If a smoother finish is desired you can sand with higher grit sandpaper.

9) Sealing

- a) The longer you wait the better, seven days from the time you poured your countertop to the time you seal it is optimum.
- b) Pour contents from Envision Sealer "B" into Envision Sealer "A" container and shake vigorously, let sit 3-5 minutes before beginning application.
- c) Massage sealer into countertop using a clean white rag or cheesecloth, wait 5 to 10 minutes and then wipe off. Repeat process of rubbing in and wiping off at least twice. Look over countertop and wipe down any remaining streaks. Care should be taken so that you're not wiping all the sealer back off. The more applications the better the countertop will be sealed. Increased applications will build up a gloss finish. A roller can be used to easily achieve the built up, or gloss finish.
- d) Wait 48 hours for initial cure to set before using countertop. Sealer will continue to cure for up to 28 days, care should be taken to avoid scratching sealer during curing. If there are any spots or streaks on the countertop after sealer has cured use a fine Scotch-Brite pad or 800 grit plus sandpaper to remove any imperfections.

10) Installation

- a) Always move, carry and transport countertop vertically. Concrete countertops should be handled the same way as granite countertops.
- b) Dry test fit. Any fit issues can be solved by sanding, grinding or shimming problem area until the proper fit is achieved.
- c) Using caulk or construction adhesive lay a few beads on cabinet surface and set countertop in place. With Envisions lightweight system standard cabinetry will support countertop, no additional supports are required.
- d) If joining a backsplash or more than one countertop together use Envision Filler tinted to desired color to adhere pieces together. Finish joints with filler the same way you would veins and voids.

11) Care and Maintenance

 a) Cleaning of your Envision Concrete Countertop is quite simple. The Envision Sealer will stand up to most any household cleaning agent including bleach or ammonia, though heavy abrasives and Scotch-Brite style pads should be avoided.

- b) Don't cut directly on your countertop, besides dulling the knife you can cut into the sealer. A cutting board should always be used.
- c) Envision Sealer is rated up to 200 degrees, but as a precaution you should always use a hot pad or hot plate when setting hot pots or pans on it.
- d) Envision Sealer should protect against most any stain, but it is always a good idea to wipe up spills right away. If you were to get a stain or scratch simply buff out using 320grit sandpaper and reseal.
- e) Reseal you countertop with Envision Sealer every 10 years. Waxing is not necessary. Should your countertop somehow chip, or a piece get broken off, Envision Filler can be tinted the matching color and used to repair it.

Enjoy your Envision Concrete Countertop.

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Tuscan Stoneworx USA, LLC 165 N. 1330 W., Ste. C-4 Orem, Utah 84057 (888) 368-9494 www.tuscanstoneworx.com