



Direct Colors has everything for the amateur or professional to construct beautiful and functional concrete countertops. As with all of our products, we have designed the Direct Colors Concrete Countertop line with our customers in mind. We take pride in creating and distributing products that are easy to use without sacrificing durability or quality.

Direct Colors Inc. offers the following concrete countertop products:

- DCI Concrete Countertop Mix – White and Gray
- DCI Concrete Countertop Admix
- High Zirconia Alkali-Resistant Fiberglass Net and Chopped Fibers
- DCI Natural Countertop Wax
- Concrete Acid Stain
- Concrete Pigment
- Deco Gel™ Gelled Acid Stain
- Countertop Polishing Kit
- Countertop Polishing Pads
- Concrete Countertop Sealers
- Glass and Stone Aggregates

What You'll Need to Begin

To construct a Glass Fiber Reinforced Concrete Countertop, you'll need the following products:

- DCI Countertop Mix
- High Zirconia Alkali-Resistant Fiberglass Net
- Colorant (ie. concrete pigment, acid stain, etc.)
- Glass or Natural Aggregate (polished countertops only)
- Concrete Countertop Polishing Kit (polished countertops only)
- Concrete Sealer (Food Grade/Countertop Certified Acrylic or Penetrating)
- Natural Concrete Countertop Wax (indoor countertops only)
- Padco Smoother Sealer Applicator

Pro's & Con's of Poured-in-Place vs. Pre-Cast Concrete Countertops

The advantages of a poured-in-place countertop are:

- Concrete countertops are very heavy; pouring in place eliminates the need to move the countertop from one place to another.
- Air bubbles are only a problem around the edges of poured-in-place countertops minimizing the need for vibrating.
- Decorative aggregate – glass or natural stone – can be broadcast on the surface and troweled in.
- Easier to install the fiberglass net required for reinforcement.
- Great for outdoor countertops.

The disadvantages of a poured-in-place countertop are:

- Construction is often messy and equipment can damage flooring or other areas in home
- Construction and curing time can take up to 30 days making for a challenging and lengthy intrusion in your home.
- Trowel finished poured-in-place countertops are not as smooth as pre-cast without polishing.

The advantages of a pre-cast concrete countertop:

- Pre-cast countertops are constructed off-site eliminating the mess for the home/business owner and potential time constraints.
- Countertops can be constructed on a slick surface such as Plexiglas or melamine to create an extra-smooth surface with minimal polishing.
- Pre-cast countertops offer more opportunity for creativity
- Decorative aggregate – glass or natural stone – can be broadcast on the surface of the form before pouring the countertop mix and revealed later by polishing.
- Countertop forms can be set up on a vibrating table reducing voids or air bubbles on the countertop surface.
- Great for indoor countertops.
- Easy to polish.

The disadvantages of pre-cast concrete countertops:

- Concrete countertops are very heavy; moving the countertop from one place to another can be difficult and damage in transit can occur.
- Pre-cast countertops often cannot be poured in one piece.
- Countertops with cut-outs for sinks can be prone to damage in transit and during installation.
- Vibrating tables can be expensive to buy or construct but are necessary to eliminate voids and air bubbles in pre-cast countertops.

Getting Started

After deciding between a pre-cast or poured-in-place countertop, it's time to determine how much countertop mix will be needed for the job. At a depth of 1.5 inches, each box of DCI Concrete Countertop Mix will cover 2.5 sq. ft. Our countertop mix is an "add water only" product which includes all the necessary fibers, polymers and reducers to provide maximum tensile strength per square inch.

DCI Countertop Mix is available in both white and gray. When combined with concrete pigment or acid stain, the color possibilities are endless. If using concrete pigment, add the pigment to your mix dry to reduce streaking. Combine thoroughly until the mix color looks consistent throughout. If acid staining, allow the countertop to cure for 12-15 days before applying the stain to ensure proper coloration.



Either natural stone or glass aggregate can also be added to the polished countertop. For pre-cast countertops, set up forms and trowel in a thin layer of countertop mix on the surface of the form. Broadcast the desired amount of aggregate onto the mix and press into place with a trowel or float. Apply an additional ~ ¼ in. of countertop mix, vibrate and add reinforcement. For poured-in-place countertops after pouring and floating, broadcast the desired amount of aggregate onto the

surface and trowel in. After waiting for the necessary curing period, begin polishing with a 100-grit pad to expose the aggregate and continue working the surface with up to a 3000-grit pad for the smoothest possible appearance.

Constructing Your Poured-In-Place Concrete Countertop

Begin by reinforcing your cabinetry to bear the added countertop weight. The average concrete countertop can weigh up to 900 lbs. or more. Most countertops have a plywood base attached to the cabinetry. Firmly affix concrete backerboard of no less than ¼ in. thickness to the plywood base. Attach edge forms (commercial or custom-made) and spray with release agent, such as Direct Colors Liquid Release Agent, to assure easy form removal. Lay one cut-to-fit sheet of glass fiber re- enforcement screen on the surface of the backerboard.



DCI Concrete Countertop Mix can be mixed in a 5 gallon pail with a hand mixer and a birdcage paddle. We recommend the Collomix KR-120 S paddle offered on the Decorative Concrete Tools page of our website. Add one gallon of water to the pail, pour in $\frac{1}{4}$ of the mix, and blend with the hand mixer. Continue until all the mix and water are thoroughly combined. The material can also be mixed using several units or boxes at a time in a drum or mortar mixer. Add the appropriate amount of water for the batch to the mixer first, and pour in

the mix slowly. Blend for a minimum of 10 minutes. Remember to follow the earlier instructions for adding concrete pigment to the countertop mix prior to pouring.

For a $1\frac{1}{2}$ in. countertop, pour $1\frac{1}{4}$ in. of countertop mix into forms, lay an additional cut-to-fit sheet of fiberglass netting onto the surface and press evenly into place. To avoid a “shadowing effect” caused by the fiberglass netting, the screen should be at least $\frac{1}{4}$ in. from the countertop surface. Pour the remaining countertop mix into the forms and vibrate the form edges to remove voids and air bubbles. Float the surface, add any aggregates if desired, and trowel smooth with a pool trowel. Allow 12-15 days curing time before removing the forms and wait 30 days from the pour before polishing. Acid Stain can be applied anytime after 12-15 days.

Constructing Your Pre-Cast Concrete Countertop

Begin by reinforcing your cabinetry to bear the added countertop weight. The average concrete countertop can weigh up to 900 lbs. or more. Construct the forms and place on a vibrating table. Depending on the desired finish, pour countertop on a Plexiglas or melamine sheet to create an extra-smooth surface with minimal polishing. DCI Concrete Countertop Mix can be mixed in a 5 gallon pail with a hand mixer and a birdcage paddle. We recommend the Collomix KR-120 S paddle offered on the Decorative Concrete Tools page of our website. Add one gallon of water to the pail, pour in $\frac{1}{4}$ of the mix, and blend with the hand mixer. Continue until all the mix and water are thoroughly combined. The material can also be mixed using several units or boxes at a time in a drum or mortar mixer. Add the appropriate amount of water for the batch to the mixer or pail first, and add the mix slowly.



Blend for a minimum of 10 minutes. Remember to follow the earlier instructions for adding concrete pigment to the countertop mix prior to pouring.

For a polished countertop with aggregate, pour a skim coat of countertop mix into the forms and broadcast the aggregate onto the surface. Press into place with a trowel. Add an additional ¼ in. of mix, vibrate, lay in a cut-to-fit sheet of fiberglass netting and lightly press into place. To avoid a “shadowing effect” caused by the fiberglass netting, the screen should be at least ¼ in. from the countertop surface. Pour the remaining mix into the forms and float the surface. Lay the final cut-to-fit fiberglass netting sheet onto the surface and vibrate. While vibrating, press the sheeting into the surface of the countertop until completely covered by concrete. Keep in mind this side will be the bottom of the countertop. For countertops without aggregate, pour 3/8 in. of countertop mix into the forms and press the first layer of fiberglass netting into place as indicated above. Allow 12-15 days curing time before removing the forms and wait 30 days from the pour before polishing. Acid Stain can be applied anytime after 12-15 days.

Acid Staining Concrete Countertops



If planning to acid stain an unpolished countertop, remove from forms and clean the surface thoroughly. Once dry apply either Acid Stain or Deco Gel™ Gelled Acid Stain to the surface, allow for the appropriate activation time, neutralize, clean and leave to dry. For polished countertops, polish the surface to a 200-grit level before applying the acid stain. Neutralize, clean and continue polishing with a 400-grit pad. Reapply acid stain to surface if required. Repeat polishing process until desired finish is achieved.

Sealing, Polishing and Waxing Concrete Countertops

Working with Acrylic Sealers

If planning to polish the countertop, polish to the desired finish before sealing with an acrylic topcoat. For best results, dilute the project appropriate amount of Krystal Kote Water-based Sealer - 2 parts water to 1 part sealer. On smooth surfaces, Krystal Kote will cover up to 350 sq. ft. per gallon undiluted. Make certain the countertop is clean and free of debris before sealing. Wet the surface of the countertop and wipe off all excess water. Using a cotton pad (folded t-shirt material or cotton knit cloth will work) spread the diluted sealer evenly over the surface. Let the sealer dry for about an hour or until dry to the touch. Repeat this process at least three times.



For the final coat, use a Padco Smoother that has been soaked in warm water and shake out the excess water. Using a plastic paint pan to hold the sealer, apply a thin coat of undiluted Krystal Kote to the dry surface. This application technique will give you good color depth and excellent bonding strength.

Working with a Penetrating Sealer



If polishing the countertop, polish the surface with a 200-grit pad. Apply Lithium-based Sealer/Hardener with a pump-up sprayer, spray bottle or foam brush according to the application instructions. Allow to dry for up to 24 hours prior to additional polishing. Polish to desired finish using a diamond polishing system. If desired, apply a second coat of sealer, allow to dry and buff with 3000-grit polishing pad.

Natural Concrete Countertop Wax can be applied according to instructions to countertops sealed with either an acrylic or penetrating sealer. However, countertops sealed with Lithium-based Sealer/Hardener do not require wax for best performance. Indoor acrylic-sealed surfaces require wax to prevent normal wear and tear. Wax should only be applied to indoor concrete countertops.

For technical assistance with concrete countertop construction or for more information about our products, contact us at 877-255-2656 or by email at info@directcolors.com. Thanks for your business!