



A Guide to Concrete Countertops

Where can I use concrete in my home?

- ▶ Kennedy's Craft Concrete makes concrete kitchen countertops, backsplashes, bathroom vanity tops, concrete sinks, showers, fireplaces, tables, desks, chairs and more.
- ▶ Concrete countertops can be straight, curved, notched, multi-level, etc. Unlike granite and quartz, which would drastically increase in cost for curved shapes, creating curved concrete shapes simply involves some extra complexity and labor in forming.
- ▶ Concrete can also be used in vertical applications such as backsplashes, shower surrounds and fireplace surrounds.
- ▶ Integral and vessel sinks are possible. See the section on sinks for more information.
- ▶ Concrete can be used both indoors and outdoors.
- ▶ Concrete floors are a different application. Kennedy's Craft Concrete can recommend companies who specialize in various types of concrete floors.

Who would want concrete countertops?

Concrete countertops the most unique, personal countertop option because they are made from scratch for each client. To determine whether concrete is right for you, think about whether you believe that:

- ▶ you want something unique and personalized
- ▶ you want something that looks natural and has character
- ▶ you appreciate high-quality, hand-crafted items
- ▶ you think granite and quartz are too shiny, too formal, too common
- ▶ you think synthetic solid surface materials look and feel like plastic
- ▶ you need a color or visual texture that's not available with other materials

If so, concrete countertops may be right for you.

What are the advantages and disadvantages of concrete compared to other countertop materials?

Advantages:

- ▶ Custom: Concrete's biggest advantage is that it is completely custom. Your countertop will be unique to you and highly personalized.
- ▶ Versatile: Concrete is extremely versatile. It can enhance any style, from French Country to Contemporary. From Arts and Crafts to Industrial. From Traditional to Modern. The possibilities are endless.
- ▶ Practical: Kennedy's Craft Concrete uses a sealer that is extremely stain-resistant and low-maintenance. Most common food items will not stain it even if left on for 24 hours. The sealer does not degrade, and therefore does not need to be reapplied every year like many other sealers. The sealer also exhibits great heat resistance.
- ▶ Imperfections: We believe that this is an advantage. Concrete countertops are handmade and hand finished. Since concrete is a heterogeneous mixture of many different ingredients, subtle variations in color, shade, texture and overall appearance should be expected. All concrete is susceptible to harmless hairline cracks. They will sometimes appear months or years after installation, and are generally a result of seasonal movement of the cabinets and the house itself. These should be considered part of the aesthetic charm of concrete, and not a defect. Concrete exhibits natural beauty rather than plastic perfection.

Disadvantages:

- ▶ Staining: Concrete countertops actually behave similar to granite in this regard. Granite countertops are also porous and have to be sealed and maintained. Most people don't realize this, because granite is usually too dark and patterned to show stains. Food, acids and oil will not stain your countertop if left on for less than 24 hours, and if left on for a longer period of time, they may cause only a light spot whose appearance can be bleached out using the instructions in your Owner's Guide.

- **Scratching:** While the sealer is very durable, it is possible to scratch it. For example, in kitchens, you should use cutting boards and not cut directly on your countertops. Your Scratch Repair guide includes easy instructions for repairing any scratches that occur.
- **Lead time:** Because concrete countertops are completely hand made from scratch for each client, they take longer than sheet goods that are simply cut by a machine. See the section on lead time for more details.

How much do they cost?

Even though it is a completely custom material, concrete is competitive in price with standard countertop materials. The price is competitive with high end granite, ranging from \$80 to over \$100 per square foot. We are happy to work with you and your designer to give you an estimate on your project, and we can help you with options to fit your budget.

What colors are available?

Any color! Concrete can be made in hundreds of colors including every color on the spectrum. Any color can be produced in a solid, speckled or variegated pattern. And, you can specify embedded stone, glass, or other objects. You can specify the color, size and density of embedments. Coupled with the many color choices, you have myriad design options.

What is the process for custom colors?

Kennedy's Craft Concrete specializes in custom color development. We can customize existing colors or match the color of an item such as a paint chip or fabric. The process takes about 3 weeks. We produce two or more 6" x 6" samples and submit them for your approval.

How much color variation can occur?

Concrete is a natural, handmade material. Many factors such as humidity, sand lot and cement lot can affect the final appearance of the concrete. All of our color formulas record the type of sand, type of cement, and exact measurements of pigments to 1/10th of a gram, and we use specially developed software to calculate mix design. However, colors can still vary because of the aforementioned factors.

Another factor that contributes to perceived variation is simply the size of samples. A 6" x 6" sample will look different than a whole countertop simply because the small sample does not capture all of the natural, random variations that will occur over a large surface. The color in a 6" x 6" sample may appear completely uniform, but a whole countertop in that exact same color will not appear as uniform. The same situation occurs with other natural materials such as granite. If you are looking for perfect uniformity, you might not be right for concrete, and you should choose solid surface instead.

What kind of sinks can be used with concrete countertops?

Kennedy's Craft Concrete countertops can accommodate all types of sinks including drop-in, undermount and apron front.

The minimum lip of concrete around all sides of sinks is 3". Concrete can also accommodate drop-in cooktops. The minimum lip of concrete in the front of a cooktop is 3". We recommend 3" for the back also, but 2" will suffice.

Kennedy's Craft Concrete can make integral concrete sinks of almost any shape. Bathroom vanity tops are an excellent application of integral concrete sinks.

We do not recommend integral concrete kitchen sinks for engineering reasons. Kitchen sinks are deep and have angles that would put large stresses on the concrete and have high potential for cracking. Also, the size of kitchen sinks generally dictates a very thick concrete bottom that would be a problem with standard plumbing and cabinetry.

Concrete vessel sinks are also possible, and concrete's versatility means that the sink can be any color and shape.

What about backsplashes?

Backsplashes are cast and finished separately and deck mounted after the countertops are installed. Backsplashes are nominally 1 inch thick and can be from 3" high to full height. Outlet openings are cast in, not cut on site.

Will concrete countertops stain?

Bare concrete is very porous and will readily stain. Virtually all concrete kitchen countertops are sealed to prevent staining; however the degree to which these sealers works varies significantly. Commonly used sealers include wax and penetrating acrylic sealer. Both of these are inexpensive and easy to apply. However, neither offer significant stain or heat resistance, and both require frequent reapplication to prevent the formation of a "patina".

Kennedy's Craft Concrete's sealer is different. We use a high-performance sealer that is exceptionally durable and provides excellent resistance to incidental contact with staining agents such as red wine, lemon juice and olive oil. Complete care instructions are included in the Owner's Guide. Touch-up of any marks that do occur is simple and easy.

Will they scratch?

While the sealer is durable, it can scratch if cut with a knife or subjected to heavy, sharp objects dragged across the surface. Cutting on the concrete may compromise the integrity of the sealer and allow stains to permeate the concrete matrix. Cutting on the concrete will also ruin knives, requiring a professional sharpening to reshape the damaged edge. Remember, concrete is made with stone, the same thing used to sharpen knives (and will therefore dull them just as easily). If you do scratch a countertop, you can easily repair it yourself using your Scratch Repair guide.

Can I put hot pots on the countertops?

As with almost all types of countertop surfaces, it is best to use trivets. Concrete can microcrack if exposed to high heat, and the sealer is not elastic enough to "absorb" these microcracks. The surface will appear "crazed". However, the Scratch Repair guide can be used to minimize the appearance of these microcracks, just like it is used to touch up scratches.

How are concrete countertops made?

All of the slabs are precast in our shop and fully finished and sealed prior to installation.

When it comes to concrete countertops, there are two basic processes: cast-in-place and precast. Cast-in-place involves building forms and pouring concrete in place, directly on the

cabinets. While this avoids the hassles of transporting heavy slabs, it does tie up the site for many days (or weeks), and it involves a messy process. In addition, cast (or pour) in place provides fewer options and less control over the finished product. Generally the only finish available is a trowelled surface, which is either acid stained or colored with pigments. The quality of the concrete, the finished appearance and ultimate performance of the countertop are all hampered by the fact that it's all being done on site under a rushed time schedule.

Precast concrete, on the other hand, moves all of the processes off site into a controlled environment. In the structural engineering community, it is well known that precast concrete is superior to cast in place concrete, mainly because tighter quality control can be exercised. Curing, which is a critical step that is commonly misunderstood, can be closely monitored. Moving the process to a shop allows greater flexibility in terms of the look of the concrete. Glass, stone and other objects can now be embedded; these require extensive wet grinding with diamond power tools to reveal the embedded objects and hone and smooth the resulting surface.

There are 2 methods of precasting: wet cast and glass fiber reinforced concrete (GFRC).

Wet cast uses a more traditional concrete mix of sand, aggregate and cement poured into forms. Our formula uses specialized admixtures to achieve the ultra-high surface quality needed for interior kitchens and bathrooms. We use local ingredients whenever possible.

Because of our education with The Concrete Countertop Institute, we are able to properly reinforce wet cast concrete to prevent cracking. Proper steel reinforcement is essential to combat the large stresses placed on a long, thin slab of concrete such as a countertop.

GFRC is concrete that is structurally reinforced with a large loading of alkali-resistant glass fibers instead of with steel. It is built up in 2 stages: a thin "mist coat" that is sprayed into the forms and provides the surface appearance, followed by a very fibrous "backer coat". GFRC is extremely strong, flexible and light compared to wet cast concrete.

Kennedy's Craft Concrete will work with you to determine which type of concrete is best for your project, depending on the look and shape you want to achieve.

What is the lead time?

Although countertops are one of the last items to be installed, concrete countertops should be selected as early as possible. Here is an outline of the process:

- Color selection: Kennedy's Craft Concrete often performs custom color matching and submits samples for your approval. Allow about 3 weeks for this process. See the section on custom colors for more information.
- Templating: Templating is done from finished and installed cabinetry, and it takes less than one day.
- Fabrication: The typical time required to fabricate most concrete countertops, depending on their size and complexity, is about 2 weeks. Note that the fabrication process may not start immediately after templating depending on how full our production schedule is. A good guideline is to contact Kennedy's Craft Concrete at the beginning of the project, or at the latest one month before cabinetry is scheduled to be installed, both to allow time for custom color samples and to secure a spot on Kennedy's Craft Concrete's production schedule.

In the case of a residential project such as a complete kitchen remodel, homeowners are usually willing to wait longer for their custom-made, handcrafted concrete countertops. However, temporary countertops can be a way to minimize inconvenience. Temporary plywood countertops are one possible solution. Or, the contractor can preserve parts of the old countertops to provide some work surfaces.

- Installation: Because Kennedy's Craft Concrete countertops are precast and prefinished, installation generally takes less than one day.

How are templates made?

Concrete countertops are templated just like quartz and granite. Templating is done after any existing countertops are removed, or after new cabinets are fully installed. Your contractor needs to arrange for existing countertops removal. Almost all concrete countertops require physical templates from the finished and installed cabinetry.

In some cases, such as small or freestanding pieces, we can fabricate from CADD drawings instead of physical templates. We will advise on templating requirements for your project, and we provide your contractor with a templating checklist to help him prepare. All fixtures that penetrate the concrete, such as sinks and faucets, must be available at templating time.

How are the countertops installed?

Concrete countertops are handled and installed just like quartz and granite. Seams are caulked with a color-matched acrylic caulk. Your contractor needs to arrange for plumbing and electrical hookup no earlier than 24 hours after the countertops installation.

Often concrete countertops can be designed without seams. Seams may be located around sinks and cooktops, or wherever required for structural reasons. Or, seams may be necessary due to the logistics of getting the slabs into the house if stairs or corners are involved. Kennedy's Craft Concrete will work with you to design seam placement that is both structurally sound and aesthetically pleasing.

Seams are typically 1/16" wide, similar to tile grout lines. However, it is important to realize that concrete countertops are handmade and hand processed; they are not machine cut, so tolerances for seams are more generous than with quartz or granite. Seam appearance is minimized by using color-matched acrylic caulk.

Are there any special structural considerations?

No. Standard precast concrete weighs about the same as quartz or granite of the same thickness, and glass fiber reinforced concrete weighs half as much. Typically, no special considerations are necessary for standard kitchen or bathroom vanity tops. Cantilevered slabs, bartops on kneewalls and similar situations sometimes require brackets or other structural supports. Kennedy's Craft Concrete can advise on support requirements.

Do you offer a warranty?

Yes. Kennedy's Craft Concrete warrants the structural integrity of the concrete for one year after installation. Concrete will of course last a lot longer than a year, but if any problems were to occur, they would occur in the first year. We subject the concrete to much larger stresses while handling it than clients ever could once it is installed. In addition, Kennedy's Craft Concrete provides each client with an Owner's Guide and a direct phone number for support from [Your Name].

Whom can I contact with questions or to discuss a project?

Contact your designer or [Your Name], at [Phone Number] or [Email]. [Your Name's] [home/showroom] is open by appointment only, and he is available nights and weekends as needed. Contact Us[link on your website] now.