

Choosing Kitchen Countertop Surfaces

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There are a wide variety of surfacing products available today for kitchens. Here is an overview of three of the more popular ones—granite, quartz composite and solid surfacing.

Polished and honed granite countertops are a popular element of up-scale kitchens and bathrooms. A natural stone countertop conveys a sense of beauty and warmth that is combined with a durable work surface that can withstand the expected high use of the new space.

Granite begins as the liquid magma (hot molten stone) in the center of the earth. It is a type of stone called “igneous.” Due to extreme pressure within the Earth, and the absence of atmosphere, granite is formed very dense with no pores. Granite is really a host of ingredients including common minerals like feldspar, quartz and mica. Feldspar is the major mineral component of granite, comprising 60 to 80 percent of the stone.

Granite is not as subject to staining as marble because of an extremely low absorption rate. The stone is less prone than marble to scratching. Its coarse grain also makes it more slip-resistant than marble.

Granites vary widely in shade, clarity and movement of pattern. There will be variations from slab to slab because of mineral content and veining, which adds to the character of the natural stone. Therefore, most granite selections are made at the stone yard, allowing the client to reserve their stone slabs for a project underway.

Granite is available in three different finishes: a highly polished surface, which is appropriate for most countertop applications; a flamed finish, which has a rough-textured touch; and a honed finish, which provides a matte surface ideal for kitchen and bathroom floor applications.

Fabrication

Granite countertops are templated at the jobsite and fabricated at the yard (stone fabrication facility) before final installation at the jobsite. For some projects, measuring the countertop for installation can be completed when the cabinets are ordered. Working from the design layout and using newly developed measuring techniques to calculate exact dimensions, fabricators can prefabricate and deliver granite tops to the job site ready for installation.

Sizing

For most countertops, the optimum thickness is 1-1/4-in. The difference in cost over more fragile 3/4-in. slabs is minimal and the added thickness gives more strength for extensions and cutouts, while reducing the risk of breakage during transport and installation. This thickness also eliminates the need for a built-up edge. For example, a 1-1/4-in. granite slab can support 12-in. of overhang. Keep in mind the weight of these tops as you schedule the installation crews.

Granite slabs for countertops are available in a variety of sizes. Should more than one piece be necessary, the slabs can be matched to another in the sequence for color and grain consistency and then cut to butt squarely against each other. For this type of installation, locate seams in the most inconspicuous location, around cutouts or back corners.

Quartz Composite

Quartz composite captures the hard durability of stone in a man-made surfacing material. Manufacturers claim it is more resilient than granite and more stain-resistant than solid surfacing. But the feature that is attracting designers and homeowners is the polished elegant look that is attainable with color and pattern consistency.

Quartz composite (also known as engineered stone) is a stone-synthetic composite made of quartz particles mixed with an acrylic or epoxy binder. Since the composites are man-made, they do not have the variations in color and texture of granite or marble. And because they are non-porous, they do not have to be sealed. It is also more stain-resistant than natural stone, and resins add a flexibility that prevents chipping. The composites also have a color consistency that saves homeowners from having to carefully choose slabs to assure they match.

The slabs are 3/8-in. to 1-1/8-in. thick and 10-ft. long. Widths range from 52-in. to 55-in., slightly larger than the European standard of 48-in. Because United States kitchen counters are typically 25-in. deep, the increased width allows fabricators to cut two lengths from one slab.

Solid Surfacing

Today, the designer has many solid surfacing materials to choose from. The designer should compare these new materials against the guidelines detailed in the following review of the major products to ascertain their level of quality and durability. Although the major product offerings vary in composition and breadth of product line, there are some common features.

- All solid surfacing material is stain resistant because it is non-porous, and repairable because the color runs through the material.
- All manufacturers recommend cleaning with a damp cloth or sponge and ordinary household soap or mild cleanser.
- The color-through feature of these materials means severe stains (including cigarette burns) can be removed with a Scotchbrite pad and cleanser. Deeper scratches can be removed with 320 to 400 grit sandpaper, steel wool and/or a buffing pad. Deeper scratches or damage should be repaired by a certified fabricator.
- While most products have excellent resistance to household chemicals, paint removers and oven cleaners can sometimes cause damage.
- All of the manufacturers offer solid surfaces with a factory finish that may be sanded to a matte finish or can be buffed or polished to a high gloss. None of the manufacturers recommend high-gloss finishes on dark colors in heavy use areas, such as countertop surfaces.
- When properly fabricated, the seam between two pieces of all the solid surfacing materials is almost imperceptible. However, you should never perceive an invisible seam.
- Solid surfacing is “fabricator sensitive” and all manufacturers stress the need to retain qualified and/or certified fabricators.
- Companies offer sheet goods in 1/2-in. and 3/4-in. thicknesses. Other thicknesses are available and vary by company. The availability of molded sinks also varies by company.
- Manufacturers recommend that unsupported overhangs should not exceed 12-in. with 3/4-in. sheets and 6-in. with 1/2-in. sheets.
- Manufacturers recommend the material “float” on the substrate; most recommend perimeter frames and a web support system rather than a full substrate.
- Although solid surfacing is considered more durable than laminates, it is not impervious to heat. Because solid surface materials expand when heated, all manufacturers recommend at least 1/8-in. clearance on wall-to-wall installation.
- Most manufacturers recommend these materials for interior use only. Potential problems with exterior use include shrinkage and expansion, as well as color changes with exposure to direct sunlight. Some products can be used in exterior applications.



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