MURANO
COLLECTION

THE LOOK OF LUXURY.

About Granite

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Physical Characteristics

Consumers who are less acquainted with granite may expect all stone from the same quarry to be identical in color. However, even a single granite slab will have color variations from one end to the other. Therefore, the pieces in stores may differ slightly in color from the colors on our web site. This lack of predictability gives the product its unique character and adds an element of nature into human-designed spaces. Indeed, each specimen is an original artwork. Granite is not recommended to customers who prefer surfaces that are perfectly uniform in color and pattern, those that are totally free of blemishes. For those individuals, engineered stone would be the preferred choice.

In addition, granite slabs are not always of a uniform thickness. Customers should be aware that their slab may vary in thickness as much as an eighth inch over the length of the slab. The installer must compensate for these variations with additional support, as needed, at the time the granite is installed.

Granite is crystalline in structure, so it always has tiny pits or spaces between the various mineral crystals. They are not visible prior to polishing, and usually remain unobtrusive on finished pieces once the surface is highly polished. Granite also contains natural fissures that may appear to be cracks, but they are not structural defects and will not impair the function or durability of the material. They occur naturally and are considered to be part of the beauty of stone.

Although granite is very durable when it's installed properly, it's not unbreakable. It can be chipped or cracked if it's struck a sharp blow by a heavy object. It can also break if it's dropped during installation. It is not flexible, and will crack if it is forced to twist or bend. Therefore, granite must always be adequately supported by proper framing or cabinetry.

Granite is the least susceptible of all natural products to scratches. If not abused, it will hold its luster forever. However, harsh chemicals and abrasive cleaners will dull the surface over time.

Granite will not scorch or burn through ordinary use. It's also resistant to stains. However, granite may absorb some moisture with prolonged contact. Usually, no evidence remains when the liquid is removed and the granite dries, but this could be a problem with dark pigmented liquids or oils. A stone sealer should be applied to its surface after installation.

Granite, being an igneous rock (formed from volcanic activity), differs from marble, limestone, and travertine in that those are sedimentary stones composed mostly of calcite, a relatively soft and common mineral derived from animal skeletons and shells. Millions of years of compression and heat below the earth's surface turned them into stone.

Granite is one of the hardest stones available, having a rating of 7 on the Moh's Measurement of Hardness Scale. In contrast, marble is rated only a 3. And since their main component is calcium, marble and the others are more susceptible to damage by acids such as vinegar and citrus beverages.

Bacterial Resistance

If bacterial contamination of the kitchen countertop is a concern, granite or stainless steel are good choices according to a recent study. This study was conducted by the Hospitality Institute of Technology and Management, a St. Paul, Minnesota-based organization that develops educational materials and research for the retail food industry.

The study measured the bacteria-resistance capacity of several common countertop materials. Each surface was contaminated with E. coli (nearly 2 billion of the microorganisms), washed and rinsed with soap and water and then sanitized with a vinegar-and-water solution. The results are shown in the table below.

Surface Microorganisms Eliminated by Cleaning	
Stainless Steel	85,113,804
Granite	79,432,823
Ceramic Tile	498,884
Concrete	293,765
Wood	2,080

Origins and Sources

Granite is believed to have been formed as long ago as 300 million years. It began as a mass of molten rock, estimated at 1300 -1400 degrees F., formed by volcanic activity about 11-12 miles underground. Forces of nature caused the magma to gradually rise to the surface where it began to cool very slowly over the next million years or so, solidifying into granite.

Over time, the land above it eroded, leaving a scattering of granite quarries all over the world. Aside from the traditional sources, such as Italy, USA, and Canada, popular granite producing areas now include India, China, many African nations, much of mountainous South America, and the northern European countries.

Granite is composed primarily of feldspar, quartz, and mica. It may also contain hints of muscovite, biotite, hornblende, and pyroxene and other minerals. These minerals are what give it its various colors. The white mineral grains in granite are feldspar, our planet's most abundant rock, which makes up about 60% of the earth's surface. The light gray, glass-like veins are quartz, and the black, flake-like veins are biotite or black mica.

Other minerals imbue the stone with a rainbow of colors, depending on their source, and these varieties are often given unique names. One coarse grained type, for example, is called pegmatite, which is often rich in rare elements such as uranium, tungsten, and tantalum.

Granite is drilled and blasted from the quarry in large blocks, cut into slabs by a gang saw, and polished to uniform thickness by automatic polishing machines. The size of the slabs will vary from quarry to quarry, but are rarely more than 10 ft. long. It is cut and fabricated into countertops using diamond saw blades or drill bits.