



## Granite Chemical Properties

Granite is primarily composed of feldspar, quartz along with various other minerals in varying percentage, which are stated as follows:

Nominal chemical composition of various oxides

Silica( $\text{SiO}_2$ )	70-77%
Alumina( $\text{Al}_2\text{O}_3$ )	11- 14%
Potassium Oxide( $\text{P}_2\text{O}_5$ )	3 – 5%
Soda( $\text{Na}_2\text{O}$ )	3 – 5%
Lime	1.00%
Iron( $\text{Fe}_2\text{O}_3$ )	1-2%
Iron( $\text{FeO}$ )	1 – 3%
Magnesia( $\text{MgO}$ )	.5 – 1%
Titina	Less than 1%(.38%)
Water( $\text{H}_2\text{O}$ )	0.03%

## **Granite Physical Properties**

In terms of its physical properties granite is a unique material. These properties lending uniqueness to granite are:

### ***Porosity/permeability***

Granite has almost negligible porosity ranging between 0.2 to 4%.

### ***Thermal Stability***

Granite is highly stable thermally, therefore shows no changes with the change in temperature. Granite is impervious to weathering from temperature and even from the air borne chemicals. It is the high resistance to chemical erosion that makes granite useful for making tanks to store highly caustic material.

### ***Co-efficient of expansion***

The co-efficient of expansion for granite varies from  $4.7 \times 10^{-6}$  –  $9.0 \times 10^{-6}$  (inch x inch).

### ***Variation***

Granite shows consistency in color and texture.

### ***Hardness***

It is the hardest building stone and hardness of granite that lends it excellent wear.

## **Granite Composition**

Granite, the hard natural igneous rock having visible crystalline texture is formed essentially of quartz and orthoclase or microcline. The principal constituents of granite are feldspar, quartz and Biotite. However the percentage composition of each varies and accordingly impart different color and texture to the final product. The percentage composition of feldspar varies between 65-90% , of quartz can extend from 10 to 60% and that of biotite lies between 10 to 15%.

## **Granite Applications**

### ***Granite Floorings***

Available in highly polished finish and a plethora of colors, Granite is also used for laying floor. With wide range of colors it is easier to choose the granite that suits the projects most. The flooring is done by engraving the slabs, tiles or the blocks of granite. The size of slabs and tiles varies and are used as per requirements.

With granite flooring tiles, bathrooms, kitchens and other rooms can be designed intricately. Granite is also widely used in office setup, halls for public gatherings, and big building and monuments.

### ***Granite Furniture***

Granite has been used for the past many years to create innumerable pieces of furniture. Tables are made in a huge range of styles and finishes, utilizing the unique physical properties of granite, supplemented by appropriate smoothing and polishing. The exquisite granite furniture has exotic and rustic appeal.

The typical granite furniture items include tables, bed, benches, bathing tub, side tables, stools and garden furniture. The furniture can be made in any size and design suiting the requirement of the end user. The granite furniture is available in a vast variety of colors ranging from black, white, brown, red, buff, gray, mauve to pink.

### ***Granite Counter Tops***

#### **About granite**

Granite is a felsic, irruptive, plutonic and igneous rock formed from magma. Having medium to coarse texture, granite is larger than the ground mass forming a rock known as porphyry. Depending on chemistry and mineralogy, granite colors vary from pink to dark gray or even black.

## **About counter tops**

Counter top is generally a horizontal work surface used in kitchens, other food preparation areas and workrooms. It is installed above and supported by cabinets. Counter top is made from various materials such as limestone, marble, soapstone, gabbro, wood, butcher block, stainless steel, granite and many more.

## **Granite counter tops**

Granite counter tops are the slabs of granite. While installing them, more character and depth of granite's natural beauty and elegance is added, mostly used in kitchen, bars, bathroom and counters of the shops. Available in various colors and textures, granite counter tops give an elegant and impressive look to any home or commercial establishment.

## **Features**

Granite counter top specializes in embellishing and beautifying your home with using fine quality granite, its vanities and fireplace surrounds. Granite tops are perfect and ideal for all kitchen and bathroom needs. Due to granite strength, high durability, availability of more color, they have become the material of choice for homeowners. Granite counter tops are one of the most valuable accession which add beauty as well as functionality in your home.

## ***Granite Monument***

Granite, primarily used as a building stone has been a part of various monuments for over many years.

Granite, by reason of its massive nature and homogeneous grain, is eminently adapted for monumental and architectural work as well as for massive masonries. The wide range in appearance and color renders the stones highly ornamental and effective for a variety of decorative uses. The capacity of taking on good polish gives a pleasing appearance. Its quality of resistance to weathering surpasses it over marble, which makes it all the more suitable for monumental purposes.

## **Granite Table Tops**

Granite is an igneous rock naturally resistant to the types of wear table tops likely to endure on a daily basis such as :

- Durability
- Sense of permanence
- Moisture resistance
- Heat resistance
- Abrasion resistance
- Higher resale value for properties

### **Granite table tops**

Making of table tops is yet another area of application of granite. The tabletops are made of the slabs of granite.

### **Reasons for popularity**

Choosing granite for table top is an excellent choice because of the many reasons, primary ones being attractiveness and durability of granite (is long lasting due to its hardness, and resistance towards stain, scratch, and heat). Being easily available in many colors, textures and designs granite table tops are gaining popularity.

In different variations of thickness and sizes table tops are available. Granite table tops are also customized i.e according to the customer specification, they can be made. Table tops made from granite help in enhancing the beauty, look and charisma of any home which will be cherished forever. Reflecting elegance and style of any table deco, they are available in different shapes.

### **Application areas**

Granite table tops are mostly used for outdoor dining tables and pool sides. They resemble as a plane of reference due to their toughness and polished surface. The perception of a granite tabletop is that is expensive. Table tops of granite are light weight, affordable, fill needs and helps in turning customers into repeating of them. The indoor and outdoor granite table tops are ideal for outside homes, restaurants, hotels, clubs and even office break rooms which rank very high in:

- Scratch resistance
- Impact resistance
- Stain resistance
- Heat resistance
- Fire resistance
- Finish retention
- Sanitary properties

## **Granite Steps**

Granite steps add quality, beauty and value to your home. The steps made of granite are gaining immense popularity for they impart a completely new look to the surroundings. These popular steps, are made by cutting granite slabs into appropriate sizes. The granite steps are either pre-cut or they are available in custom sizes. Being available in multiple colors the steps can be chosen in accordance with the rest of interiors.

## **Application areas**

Since granite is highly slippery, granite stairs are not a common feature in residences. It is however found in hotels, offices, halls for public gathering and monuments.

## **Popularity**

Granite steps everlasting beauty had occupied a special place that is incomparable. They can really dress up the front of a home. Compared to other doorsteps, granite steps are the excellent alternative due to their natural look, ruggedness and low maintenance. Their strength, durability & safety are recognized world over. Generally polished or honed finishes are available in them.