

STONE CARE GUIDE

THE PERFECTLY SIMPLE GUIDE TO KEEPING YOUR COUNTER SPARKLING



GRANITE AND MARBLE CARE AND MAINTENANCE

Sealing your Natural Stone

Natural stone has been formed over millions of years. But improper care can ruin nature's beauty. Although we usually think of stone as a "hard" material, it is a porous material that can absorb spills and stains if left untreated. *Sealing your stone with a quality impregnating sealer will prevent most spills from damaging your investment.*

There are a wide variety of sealers available, so you need to select one for your specific needs and natural stone type. Impregnating sealers, with new, advanced fluorochemical technology, penetrate the stone and help protect it against water and oil-based stains. Industry professionals recognize that natural stone is best protected with a fluorochemical-based sealer. We recommend sealing your new stone with DuPont StoneTech Professional™ Heavy Duty Stone Sealer formulated with the latest in Fluorochemical technology.

If your stone is less porous or semi-porous, then DuPont StoneTech Professional™ Heavy Duty Stone Sealer is the recommended sealer. If your stone is very porous, such as some veined granites, then DuPont StoneTech Professional™ BulletProof™ Stone Sealer may be your best choice. For color enhancing and other special considerations, consult your stone supplier or stone care professional. StoneTech Professional™ has a complete line of sealers for your natural stone. Once sealed properly (every 3 to 4 months depending on the stone type), your stone is protected against everyday dirt and spills. Proper cleaning will help the sealer last longer and keep your stone protected without damaging your stone's natural beauty.

How Countertops Sealers Work

Granite countertop sealers all work essentially the same and can be used on any natural stone that needs sealing; however, there's plenty of misunderstanding about what sealers actually do. The common perception is that granite sealers protect, shield or otherwise prevent stone from being stained. Your countertops can still be stained even when sealed. Granite countertop sealers simply help decrease the absorbency rate of the stone, so it won't stain as easily. Sealers don't absolutely prevent a stone from being stained; they just make it a lot harder to do.

How Sealers Work

Sealers, also called "impregnators" are composed of a resin dissolved in water or a petroleum-based solvent. The granite sealer is applied to the stone with a paint brush or pad and left on the surface long enough for it to be absorbed into the pores of the stone (i.e. below the surface). Excess sealer is wiped off the surface and the rest evaporates leaving the resin to clog up the pores, hence the term impregnator.

Once cured a sealer keeps spilled substances on the surface of the stone giving you more time to clean it up, so that it is not absorbed into the stone causing a stain. However, if coffee, wine, oil or other substances are left on the stone long enough, stains may occur even when the stone is "sealed."

Why?

All stones are porous. Some readily absorb virtually anything spilled on them while others are so dense that essentially nothing is absorbed or it takes a very long time.

Logic tells us that the more porous the stone, the faster and deeper it will absorb any spilled substance. An impregnating granite countertop sealer will clog up the pores preventing a deep stain, but sealers work below the surface, thus staining can still occur at the surface level.

Highly porous/absorbent stones, like most marble, need to be sealed and periodically re-sealed to adequately control absorbency and the tendency to stain. Thus, such stones are not the best choice for used and abused areas like the kitchen.

And some granite types (and other stone types) are so dense that they really don't need a sealer, soapstone for instance.

In fact, applying a sealer to dense stones (most notably black granites like Black Galaxy or Absolute Black) may only result in a build-up of sealer residue and a dull surface without any appreciable benefit or stain protection since the stone is already extremely resistant to staining.

Also, it's important to remember that not all stones in the same commercial family (granite, marble, travertine) perform exactly alike. In fact, performance can vary considerably.

Therefore, it's important to test the stone to determine if it is suitable for its intended use (kitchen countertop, bar top) and whether or not it should be sealed.

Determine Your Stone Type and Sealing Requirements

Performing **The Lemon Juice and Oil Test** will tell you both how absorbent your stone is and what type of stone you have: Specifically, is it a silicate-based stone (granite) or a calcite-based stone (marble, travertine and limestone) or possibly a mix of silicate/calcite.

Why is this important?

It will help you choose the best stone for its intended use and/or help determine the characteristics of the stone you have, say if you just purchased a home and don't really know.

Granite is the stone of choice for use in the kitchen where all kinds of substances will come in contact with the countertop. Some granites are more absorbent than others and some "granite" is actually mixed with calcite (like marble) and the surface will corrode or "etch" when exposed to acids like lemon juice, coffee, alcohol, salad dressing, etc.

Etching has nothing at all to do with sealing granite countertops or marble or travertine. Sealing will not prevent etching. It is a chemical reaction between the acid and the calcite that physically alters the stone, which is especially noticeable on polished surfaces.

All marble, travertine and limestone will etch and most are also prone to staining, which is why these stones are typically not recommended in the kitchen, unless you are willing to let them age naturally (spots and all).

But some of these stones are very dense and won't absorb a thing or stain at all, especially when polished, which helps decrease absorption rates for any stone.

You want a stone that won't do either (won't etch or stain) for the kitchen. Therefore, this test is most useful to determine the best granite for your kitchen, wet bar or heavily used bathroom.

Be advised, the finish of your stone (honed, polished, leather) will not alter its sealing requirements.

NOTE: Perform this test on samples chipped off the exact slab you are considering for installation.

Also, this test could damage the surface polish of calcite-based stones, so if you are trying to determine the nature of a stone already installed, perform this test in an inconspicuous spot (in a corner or a spot that is always covered by an appliance, etc.).

PERFORM THE LEMON JUICE AND OIL TEST

1. Line up all your samples in row.
2. Drip enough lemon juice to form a dime-sized puddle on the first sample.
3. Do the same with vegetable/olive oil.
4. Look at the surface of the stone through the puddles and note the time.
5. If you see the surface under the puddles darken right away, this stone is very absorbent and should NOT be used in the kitchen.
6. If the stone does darken, but it takes 4 or 5 minutes, then applying a granite sealer will make this stone manageable in the kitchen... it'll be reasonably stain resistant.
7. If it takes 10 to 15 minutes to darken a sealer should still be applied, but make sure it absorbs well and doesn't dry on top.
8. If the stone never darkens or it takes 30 minutes or more, then you have a near stain-proof winner that probably would not take a sealer even if you tried.
9. Wipe the sample clean and look at the spot where the lemon juice was... is it dull compared to the shiny polish on the rest of the sample or did you notice the lemon juice fizzing/bubbling when on the surface? If so, it contains calcite and should not be used in the kitchen.
10. Perform the same test procedure on each of your samples.

The Water Drop Test

If all you are trying to determine is whether sealing your natural stone countertops is necessary, you can perform the “Lemon Juice and Oil Test” using water. The reason for the lemon juice is to determine if your stone can handle contact with acidic substances. Of course, if it can't you don't want it in the kitchen, and the oil is very noticeable if absorbed. So, drip a puddle of water on your countertop, note the time and observe.

If the puddle darkens quickly, then sealing granite countertops is required. Multiple coats (about 2-3) and every 4 months is recommended. Also, be quick about wiping up spills.

If it takes 4 or 5 minutes to darken, again sealing is required (at least 2 coats); re-sealing every 4 months may be needed (possibly longer depending on quality of sealer, re-test when the time comes) and stains won't be a big issue unless something sits for a few hours.

If it darkens in 10 to 15 minutes, then apply a sealer, but follow directions carefully. Probably only one coat needed and should be longer before re-sealing is necessary.

If the puddle doesn't darken or takes 30 minutes or longer, then you have a bullet proof stone that is next to impossible to stain. Sealing granite countertops in this category is really not necessary but if you would like you can apply one coat of sealer.

Some dark granite types (especially blacks and greens) are very dense, and may not need to be sealed, however, if a sealer is applied, it will sit on the top and can noticeably dull the appearance. If this happens, the sealer must be stripped and possibly the surface re-polished.

If you have a dark, dense granite and need convincing, let a drop of oil sit on your sample overnight. No spot after you wipe it off? You will never stain this countertop.

If you notice a stain, wash it with a little soap and hot water and dry it. Is the stain gone? Your tops are essentially impervious to stains, but they will probably take one coat of sealer without issue.

Sealing is Simple

Sealing your stone countertops is a simple wipe on, wipe off procedure. No special knowledge is required except the ability to follow some simple instructions. The key is to completely remove any sealer residue from the surface after it has absorbed into the pores below the surface saturating the stone, but before it dries.

DIRECTIONS TO SEALING YOUR STONE

Read entire label of product before using. Use only as directed. Always test in a small inconspicuous area with a 24-hour cure time to determine ease of application and desired results. Allow new grout installations to cure for a minimum of 72 hours prior to application. Make sure surface is clean, and free of waxes and coatings. Sealer may be applied to damp surfaces 1 hour after standing water is removed. Ensure that the area is well-ventilated during application and until the surface is dry. Keep children and pets out of the area until foot traffic resumes.

1. Mask any surfaces not intended to be treated.
2. Apply sealer evenly and liberally using a paint pad, roller or brush.
3. Allow sealer to penetrate the surface for 15–30 minutes while spreading excess sealer over entire area for even penetration. Remove excess sealer by wiping surface thoroughly with clean, dry towels.
4. Apply second coat as needed for porous, absorbent surfaces 30–40 minutes after first coat, following directions in steps 2–3.
5. 15–30 minutes after final application, wipe entire surface with clean, dry towels to remove any excess sealer. To remove any residue, reapply a thin coat of sealer, wait 2–3 minutes, then rub lightly with a white nylon pad. Wipe again thoroughly with clean, dry towels.
6. A full cure is achieved after 24–72 hours. Foot traffic may begin in 6–8 hours. If needed sooner, cover floor with red rosin paper to protect it until full cure is achieved.
7. Clean tools used during application with water.

Granite & Marble Cleaning Procedures & Recommendations

Keeping your stone dry, free of dust and sandy soil, will minimize the scratches and wear-patterns that can develop from everyday use of some natural stone, such as marble, limestone and sandstone. Sweep or dust all natural stone surfaces regularly to remove loose soil and dust.

Clean your natural stone on a regular basis with warm water and a clean non-abrasive cloth, sponge or mop. In addition, using a neutral cleaner specially formulated for natural stone will help remove soil that normal dusting or damp mopping leave behind. We recommend DuPont StoneTech Professional™ Revitalizer™ Stone & Tile Cleaner and Protector. This cleaner is developed especially for natural stone and tile care. Its unique blend of neutral cleaning agents makes it gentle on your stone while leaving behind an impregnating protective shield every time you clean.

Do not use general purpose cleansers or you may damage your stone or the sealer applied. Do not use products that contain lemon, vinegar or other acids as these may etch the stone surface whereby damaging the polish. Do not use powders or creams; these products contain abrasives that may scratch the surface.

Countertops and Vanities

Use Revitalizer™ on a regular basis to remove residues from cooking oils and everyday food spills as well as hairspray or other cosmetics. Many common foods and drinks contain acids that may etch or dull the stone surface. Also, some common toiletries (e.g., perfume, toothpaste, mouthwash) contain acids and other ingredients that may damage the stone surface or degrade the sealer.

Floor Surfaces

Dust mop interior floors frequently using a clean non-treated dry dust mop. Sand, dirt and grit do the most damage to natural stone surfaces due to their abrasiveness. Mats or area rugs inside and outside an entrance will help to minimize the potential damage from these particles. In addition, take care when using a vacuum cleaner as the metal and plastic attachments or wheels may scratch the surface. Damp mop the stone floor with a dilute solution of Revitalizer™ or All Purpose Stone & Tile Cleaner as instructed on the label. Keep off the floor until completely dry, as wet stone floors may be slippery.

Bath and Other Wet Areas

Periodic use of Revitalizer™ will remove any soap scum or hard water deposits that may have formed. In the bath or other wet areas, using a squeegee after each use can minimize soap scum and hard water deposit buildup.

What To Do When a Spill Occurs

Regardless how careful you are, spills are going to happen. A quick response and the right solutions can keep spills from damaging your stone or the sealer. We recommend that you only use the cleaning products suggested.

Etch Marks : Substances that are highly acidic, such as orange juice, coffee, vinegar, wine, tomato products, mustard and many soft drinks, will “etch” most marble, limestone and travertine – whether the stone is sealed or unsealed. Although sealing allows you time to wipe up a spill, it cannot stop the chemical reaction that may leave a dull area or etch mark in the stone. In addition, cleansers not specifically designed for natural stone are not recommended. These may etch away the polish, discolor the surface, scratch the stone or degrade the sealer. That’s why selecting the appropriate cleaning product is so important in maintaining the beauty of your natural stone.

Professional refinishing is the best way to permanently remove etch marks and restore your stone’s natural finish.

Food Spills : Scoop up the food with a plastic spoon. Blot with a dry, white cloth. Spray the area with Revitalizer™ and wipe off the excess with a clean cloth or clean the soiled area with Revitalizer™ Wipes.

Liquid Spills : Blot away the excess with a clean, dry, white cloth; turning the cloth frequently. Spray the area with Revitalizer™ and wipe off excess with a clean cloth or clean the soiled area with Revitalizer™ Wipes.

Mud : Let the mud stain dry completely. Remove dried mud with a soft plastic or nylon brush. Spray affected area with Revitalizer™. Wipe dry with a clean cloth. If the stain remains, contact a professional.

Oily Stains : If you identify the stain as being an oil base (from foods like salad and cooking oil, butter, or some cosmetics) you may be able to remove the stain using a poultice. We recommend StoneTech Professional™ Oil Stain Remover. This easy-to-use poultice is designed to slowly remove oily stains from natural stone surfaces. Follow the instructions as indicated on the label.

DOS AND DON'TS

- **DO** use coasters under drinking glasses, especially if they contain alcohol or citrus juices.
- **DO** use trivets or mats under hot dishes or cookware.
- **DO** use place mats under china, ceramics, silver or other objects that may scratch your stone's surface.
- **DO** place a small rug or mat at entryways to trap dirt and sand from regular foot traffic.
- **DO** dust countertops, islands, vanities and floors frequently.
- **DO** blot up spills immediately to minimize permanent damage to the stone.
- **DO** clean surface by wiping with clean water or by using StoneTech Professional™ Revitalizer™ Stone & Tile Cleaner and Protector.

- **DON'T** use vinegar, bleach, ammonia or other general purpose cleansers.
- **DON'T** use cleansers that contain acid such as bathroom cleansers, grout cleansers or tub and tile cleansers.
- **DON'T** use abrasive cleansers such as dry cleansers or soft cleansers.
- **DON'T** use alkaline cleansers not specifically formulated for natural stone.

SOAPSTONE CARE AND MAINTENANCE

The only maintenance required for soapstone is the application of mineral oil, it enhances the natural darkening process the stone goes through. Once mineral oil is applied, the stone will turn into a very dark charcoal gray, sometimes black. Often times, varieties of soapstone will keep a hint of green. Soapstone is virtually heat proof. Therefore, you can take a pot right from your stove and place it on your soapstone countertops without harm.

Oiling a Soapstone Countertop

Oiling your countertops ensures that the stone will evenly darken. *The oil does not seal or protect the stone, it only "speeds up" the natural darkening process that steatite (soapstone) goes through. Soapstone is non-porous and, unlike marble and granite, it does not need to be sealed.*

There isn't a set rule of how often you should oil the countertops. Oiling too little or too much will not damage the stone in any way. It is recommended that countertops are oiled as soon as the previous coat of mineral oil has started fading away (evaporating). Once you oil the countertops for the first time you will see the stone will become much darker. Most soapstone will lighten back up a few days from the first oiling. You can re-apply the oil to your countertops every time this happens. It will take approximately 3 coats of mineral oil to reach the stone's final color, getting darker after every oiling. Every time you oil your countertops, the stone will hold the oil longer than the last time, until about the 6th or 8th month the stone will stay permanently dark.

There is no particular way on how to oil your Soapstone counter top. You can spread some oil on the counters and rub it with a rag, or you can put the oil on the rag and oil the counters. To make the next oiling easier, keep the same rag in a zip lock bag, you will see that the rag will soak in the oil and spread easier on the countertops.

You can remove all the excess immediately after you've oiled your soapstone countertop until it no longer feels slick. There is no need to "let the oil soak in". Therefore, leaving the oil on the surface for a period of time would be useless.

Soapstone Cleaning Procedures & Recommendations

Any common household cleaner can be used to clean soapstone counter surfaces. Chemicals and acids do not harm it. However, it is recommended that you use regular soap and water because harsher solvents may remove the mineral oil treatment, therefore generating more maintenance. Soapstone is more prone to scratches since it is softer than granite and marble. However, any scratches can be easily removed with a light sanding and/or mineral oil.

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Removing Scratches

Eventually the countertops will get scratched. Most scratches can be hidden by lightly applying some mineral oil. If you get a deep scratch, you will need to do some sanding. With a small piece of 120-grit sandpaper, sand the scratch area in a circular motion until the scratch is almost gone, then using a 220-grit sandpaper do the same thing but this time using water. Clean up the countertop and oil in that section again. Sanding will remove the mineral oil, and remember that the stone will take 3 coats to reach the final color. You may notice a slight color difference on that spot. For that, you can oil in the morning, then again in the afternoon and so on until the color evens out.

ENGINEERED STONE CARE AND MAINTENANCE

Engineered stone countertops are made of 99.9% solid material. Therefore, making it very difficult for harmful bacteria and other microorganisms to live and develop. They are resistant to heat, cracks, chipping, stains, and harmful chemicals. They generally require low maintenance, and do not require a lot of cleaning time.

Engineered stone countertops do not require regular sealing to prevent staining; they are made of nonporous materials. They are not easily stained by fruit juices, wine, cooking oil, coffee, tea, nail polish and remover, lotions, and other common household liquids. Engineered stone countertops are also hygienic because they do not affect the taste of food or compromise its safety when it is prepared on their surface.

Engineered Stone Cleaning Procedures & Recommendations

Engineered stone countertops only require a simple cleaning routine. *Regular cleaning using a damp cloth and a mild soap detergent is already enough.* If there is a spill, simply blot it off.

Although engineered stone countertops are made to resist moderate temperatures, it is still advisable to use a dish towel or a trivet before you place a hot pan on your countertop. Do not place hot plates directly on the surface; prolonged exposure to high heat can damage your engineered stone countertop.

Avoid using very strong chemicals and other solutions with unidentified ingredients. Make sure your cleaning agent is recommended by your manufacturer. Read the label of your cleaning agent before using it to identify its components. Stay away from floor strippers and oven cleaners because they have very strong chemicals that can damage your countertop surface.

For engineered stone countertops with high gloss and polished surfaces, you may use mild household cleaners such as Windex, Fantastik, and Formula 409 in addition to the soap and water solution. For engineered stone countertops with honed surfaces or those with a smooth and matte look, using the soap and water solution is enough to clean and polish the surface.

In removing finger prints, metal marks, and other surface signs, use Soft Scrub. For tough stains, use a Scotch Brite pad.

For very stubborn dried spills, using multipurpose cleaners and detergents applied to green scouring pads is recommended. This cleaning technique transfers the dirt from the surface to the pad. Do not worry about abrasions because the rough pad would not damage your countertop surface.