

Care & Maintenance guide

The natural stone you have in your home, office, or commercial building is an investment that will give you many years of beautiful service. Simple care and maintenance will help preserve your stone's beauty for generations to come.

CARE + MAINTENANCE

A comprehensive care and maintenance program is just as important as the initial material selection. If you're a homeowner, you'll want to be aware of the care and maintenance requirements before you select a material. If you are an architect or designer, you'll want to know this information prior to specifying a material.

What you should know about cleaning Natural stone -

Natural stone can be classified into two general categories according to its composition: siliceous stone or calcareous stone. Knowing the difference is critical when selecting cleaning products. Siliceous stone is composed mainly of silica or quartz-like particles. It tends to be very durable and relatively easy to clean with mild acidic cleaning solutions. **Types of siliceous stone include granite, slate, sandstone and quartzite.** Calcareous stone is composed mainly of calcium carbonate and will react to acidic foods such as lemons or tomatoes. This reaction will result in a dulling in surface sheen and change in texture, otherwise referred to as "acid etching". Cleaning products that work on siliceous stone may damage the surface of calcareous surfaces. **Types of calcareous stone include marble, travertine, limestone and onyx.**

As a general rule of thumb, whenever a spill occurs, immediately blot the spill with a paper towel. Don't wipe the area; it will spread the spill. Flush the area with plain water and a mild liquid dishwashing detergent. Rinse several times. Dry the area thoroughly with a soft cloth. Do not use products that contain lemon, vinegar or other acids on marble or limestone. Do not use scouring powders or creams; these products contain abrasives that may scratch the surface.

Assessing the Stone's Current Condition

Knowing the current condition of the stone is another critical first step. It is recommended that you develop a checklist of questions to use in your routine examination of the current conditions. Your checklist should include questions such as:

- Are the tiles flat and even?
- Are there any cracked tiles?
- What type of stone finish exists?

- Has the stone been coated with any waxes, acrylics, enhancers, or other coatings? If so, which type and manufacturer?
- Is there any evidence of staining? What type?
- If the stone has been sealed with a topical sealer, are there any signs that the sealer has worn off?

Your answers to these and other questions will help you pinpoint your next step. For example:

- Uneven tiles (a sign of lippage) may result in the floor needing to be ground flat, honed, and then polished.
- Cracked tiles will allow dirt and other debris to accumulate in the cracks. This may require that the tiles be replaced, or at a minimum, filled.
- Knowing the type of stain (organic, oil-based, etc.) will help identify the proper stain removal technique needed. Also, the level of stains or spills the stone can be exposed to will play a role in determining if an application of a sealer is appropriate.

For application-specific cleaning instructions, see below:

FLOORING APPLICATIONS

Dust interior floors frequently using a clean, 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 sand, dirt and grit that will scratch the stone floor. Be sure that the underside of the mat or rug is a non-slip surface. Do not use vacuum cleaners that are worn – the metal or plastic attachments or the wheels may scratch the surface.

BATHROOM APPLICATIONS

In the bath basin or other wet areas, soap scum can be minimized by using a squeegee after each use. To remove soap scum, use a non-acidic soap scum remover or a solution of ammonia and water (about 1/2 cup ammonia to a gallon of water). Frequent or over-use of an ammonia solution may eventually dull the surface of the stone.

VANITIES + OTHER COUNTERTOPS

Vanity tops may need to have a penetrating sealer applied. Check with your installer for recommendations. A good quality marble wax or non-yellowing automobile paste wax can be applied to minimize water spotting.

KITCHEN APPLICATIONS

All natural stone used for kitchen countertop applications must be regularly maintained and resealed to prevent staining. Always use a neutral detergent to clean marble countertops.

EXTERIOR POOL + PATIO APPLICATIONS

In outdoor pool, patio or hot tub areas, flush with clean water and use a mild bleach solution to remove algae or moss.

Cleaning Do's and Don'ts

- DO use a cutting board in all kitchen countertop applications
- DO use coasters or placemats under all glasses, particularly those containing alcohol or citric juices
- DO use trivets under china, ceramics, silver or other objects that might scratch or scorch the surface
- DO protect flooring applications by using walk-off mats or area rugs
- DO dust mop floors frequently
- DO clean surfaces with mild detergent or stone soap
- DO thoroughly rinse and dry the surface after washing
- DO blot up spills immediately
- DON'T place hot items directly on the stone surface
- DON'T use vinegar, lemon juice or cleaners containing acids on marble, onyx, limestone or travertine surfaces
- DON'T use cleaners that contain acid such as bathroom cleaners, grout cleaners or tub and tile cleaners
- DON'T use abrasive cleaners such as dry cleansers or soft cleansers
- DON'T mix bleach and ammonia; this combination creates a toxic and lethal gas
- DON'T ever mix chemicals together unless directions specifically instruct you to do so

STAINING : wine, oil or grout stains on the surface of the stone

Staining refers to the residual effect of a spill that cannot be removed with dishwashing detergent. Identifying the source of the stain is the key to removing it. If you don't know what caused the stain, ask the following questions to help identify the source:

Where is the stain located? Is it near a plant, a food service area, an area where cosmetics are used?
What color is it?
What is the shape or pattern?
What goes on in the area around the stain?

Surface stains can often be removed by cleaning with an appropriate cleaning product or household chemical. Deep-seated or stubborn stains may require using a poultice or consulting with a professional.

The following sections describe the types of stains you may encounter and how to appropriately treat them without damaging the surface of the stone.

OIL-BASED: (grease, tar, cooking oil, milk, cosmetics)

An oil-based stain will darken the stone. Generally oil must be chemically dissolved so the source of the stain can be flushed or rinsed away. Clean gently with a soft, liquid cleanser with bleach OR household detergent OR ammonia OR mineral spirits OR acetone.

ORGANIC: (coffee, tea, fruit, tobacco, paper, food, urine, leaves, bark, bird droppings)

May cause a pinkish-brown stain and may disappear after the source of the stain has been removed. Outdoors, with the sources removed, normal sun and rain action will generally bleach out the stains. Indoors, clean with 12% hydrogen peroxide (hair bleaching strength) and a few drops of ammonia.

METAL: (iron, rust, copper, bronze)

Iron or rust stains are orange to brown in color and follow the shape of the staining object such as nails, bolts, screws, cans, flower pots, metal furniture. Copper and bronze stains appear as green or muddy-brown and result from the action of moisture on nearby or embedded bronze, copper or brass items. Metal stains must be removed with a poultice. Deep-seated, rusty stains are extremely difficult to remove and the stone may be permanently stained.

BIOLOGICAL: (algae, mildew, lichens, moss, fungi)

Clean with diluted (1/2 cup in a gallon of water) ammonia OR bleach OR hydrogen peroxide. DO NOT EVER MIX AMMONIA AND BLEACH! THIS COMBINATION CREATES A TOXIC AND LETHAL GAS!

INK: (magic marker, pen, ink)

Clean with bleach or hydrogen peroxide (light-colored stone only!) or lacquer thinner or acetone (dark stones only!)

PAINT:

Small amounts can be removed with lacquer thinner or scraped off carefully with a razor blade. Heavy paint coverage should be removed only with a commercial "heavy liquid" paint stripper available from hardware stores and paint centers. These strippers normally contain caustic soda or lye. Do not use acids or flame tools to strip paint from stone. Paint strippers can etch the surface of the stone; re-polishing may be necessary.

Follow the manufacturer's directions for use of these products, taking care to flush the area thoroughly with clean water. Protect yourself with rubber gloves and eye protection, and work in a well-ventilated area. Use only wood or plastic scrapers for removing the sludge and curdled paint. Normally, latex and acrylic paints will not cause staining. Oil-based paints, linseed oil, putty, caulks and sealants may cause oily stains. Refer to the section on oil-based stains.

WATER SPOTS AND RINGS: (surface accumulation of hard water)

Buff with dry (0000 grit) steel wool.

FIRE AND SMOKE DAMAGE:

Older stones and smoke or fire stained fireplaces may require a thorough cleaning to restore their original appearance. Commercially available "smoke removers" may save time and effort.

ETCH MARKS (calcareous stones):

Caused by acids (typically from milk, fruit juices, alcohol, etc.) left on the surface of the stone, some will etch the finish but not leave a stain; others will both etch and stain. Once the stain has been removed, wet the surface with clear water and sprinkle with marble polishing powder. Rub the

powder into the stone with a damp cloth or by using a buffing pad with a low-speed power drill or polisher. Continue buffing until the etch mark disappears and the marble surface shines. Honing may be required for deep etching. This process may require the services of a stone maintenance professional.

EFFLORESCENCE:

A white powder that may appear on the surface of the stone, it is caused by water carrying mineral salts from below the surface of the stone to the surface and evaporating. When the water evaporates, it leaves the powdery salt residue. If the installation is new, dust mop or vacuum the powder. Repeat as necessary as the stone dries out. Do not use water to remove the powder (adding water will only add to the problem). If the problem persists, contact the stone contractor to identify and remove the cause of the moisture.