## stone <u>Care G</u>uide

how to preserve the beauty of your natural stone

DECORATIVE materials

This is a guide only. If in doubt regarding cleaning and stain removal please contact a stone professional. Your Decorative Materials design consultant can make a recommendation. The information in this guide has been provided by The Marble Institute of America.

#### get to know your stone

The first step in proper care and maintenance of stone is to understand your stone's geological classification and composition. This information will help you to identify what cleaning products to use and how best to care for your natural stone.

Natural stone is categorized into three basic geological classifications by their respective formation processes: sedimentary, metamorphic and igneous. Additionally, stones in each category can be either calcareous or siliceous.

**Calcareous Stone** is composed mainly of calcium carbonate, a chemical compound commonly found in natural stone, shells and pearls. Calcium carbonate is sensitive to acidic solutions (citrus fruit, ketchup, saline solution) so mild, nonacidic cleaners are recommended. A cutting board is always recommended for kitchen use.

Siliceous stone, as the term implies, is one composed primarily of silicates, such as quartz, feldspar, mica, etc. As such, a siliceous stone is generally resistant to most acids found in kitchen settings, although acidic cleaners are still not recommended, as these stones may contain trace levels of minerals that are acid sensitive.

# what kind of stone is it?

The following chart will be a helpful guide:

	CALCAREOUS	SILICEOUS
SEDIMENTARY	Limestone Travertine Onyx	Sandstone
METAMORPHIC	Marble Serpentine	Slate Quartzite Soapstone
IGNEOUS		Granite

#### basic tips for your stone

To get the longest life and preserve the beauty of your natural stone, follow these simple tips:

COASTERS: Use coasters under all glasses, particularly those containing alcohol or citrus juices.

trivets: While many stones can withstand heat, the use of trivets or mats is recommended.

dust mopping: Dust mop interior floors frequently using a clean non-treated dry dust mop. Sand, dirt and grit are abrasive and can damage natural stone.

**mats/rugs:** Mats or area rugs inside and outside an entrance will help to minimize the sand, dirt and grit that may scratch the stone floor. Be sure that the underside of the mat or rug is a slip resistant surface.

Vacuum cleaners: If used, be sure the metal or plastic attachments or the wheels are not worn as they can scratch the surface of some stones.

Spills: Blot the spill with a paper towel immediately. Don't wipe the area, it will spread the spill. Flush the area with water and mild soap and rinse several times. Dry the area thoroughly with a soft cloth. Repeat as necessary.

#### how to clean your stone

- Clean stone surfaces with a neutral cleaner, stone soap, or a mild liquid dishwashing detergent and warm water. pH neutral stone cleaner works great and is safe for all surfaces in the bath and kitchen.
- Similar to any item cleaned in your home, an excessive concentration of cleaner or soap may leave a film and cause streaks. Follow manufacturer recommendations.
- Use a clean rag mop on floors and a soft cloth for other surfaces for best results.
- Rinse the surface thoroughly after washing with the soap solution and dry with a soft cloth.
- Change the rinse water frequently.
- In the bath 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.

#### choosing your cleaning products

- Many suppliers offer products used for stone cleaning.
- Do not use products containing lemon, vinegar or other acids as the will dull or etch calcareous stones.
- Scouring powders or creams often contain abrasives that may scratch certain stones.
- Many commercially available rust removers (laundry rust stain removers, toilet bowl cleaners) contain trace levels of hydrofluoric acid (HF). This acid attacks silicates in addition to other minerals. All stones, including granite and quartzite, will be attacked when exposed to HF.
- Do not mix ammonia and bleach. The combination creates a toxic and lethal gas.

#### sealing your stone

Sealing is a common step taken on some stones as an extra precaution against staining. In fact, the sealing products used in the stone industry are 'impregnators" which do not actually seal the stone, but more correctly act as a repellent rather than a sealer. Sealing does not make the stone stain proof, rather it makes the stone more stain resistant.

If a sealer is applied in a food preparation area, be sure that it is non-toxic and safe for use.

consult your supplier for sealing manufacturers specific to the type of sealer and frequency of use recommended.

#### stain removal steps

Surface stains can often be removed by cleaning with an appropriate cleaning product or household chemical. The following pages will help you identify and clean stained areas.

#### what sort of stain is it?

Identifying the type of stain on the stone surface is the first step to removing it. Stains can be oil based, organic, metallic, biological, ink based, paint based, acid based, and more. If you don't know what caused the stain, consider likely staining agents that may have been present. Here are some questions to help you narrow down the possibilities:

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

#### cleaning instructions by stain type

This section describes common categories of stains you may have to deal with, the appropriate household chemicals to use, and how to prepare and apply a poultice to remove the stain. Before cleaning a large area, always test cleaning method in a small inconspicuous area.

OII-based (grease, plumbers' putty, tar, cooking oil, milk, cosmetics): An oil-based stain will darken the stone and normally must be chemically dissolved so the source of the stain can be flushed or rinsed away. Clean gently with a soft, liquid cleanser with one of the following: household detergent, mineral spirits, or acetone. These products will remove sealer and may require stone to be resealed.

Organic (coffee, tea, wine, 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, 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. These products will remove sealer and may require stone to be resealed.

fire & smoke damage: Older stones and smoke or fire-stained fireplaces may require a thorough cleaning. When the smoke is removed, there may also be some etching (due to carbonic & other acids in smoke). Commercially available "smoke removers" may save time and effort. ink (magic marker, pen, ink): On light colored stones, clean with a minimal amount of diluted hydrogen peroxide. On dark colored stones, clean with a diluted amount of acetone.

**paint:** Small amounts of dry paint can be lightly and carefully scraped off with a razor blade. Contact your stone dealer or call a professional stone restorer for refinishing or repolishing etched areas.

**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. (See www. marble-institute.com/consumers/poultices.cfm) 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 cleaning solution. Use 1/2 cup of any of either ammonia or hydrogen peroxide and a gallon of water.

etch marks (caused by acids - citrus, ketchup, saline solution - left on the surface of the stone): Some materials will etch the finish but not leave a stain. Others will both etch and stain. Contact your stone dealer or call a professional stone restorer for refinishing or repolishing etched areas. Etching appears more prominently on polished surfaces. scratches & nicks: Slight surface scratches may be lightly buffed with dry 0000 steel wool. Deeper scratches and nicks in the surface should be repaired and repolished professionally.

Water spots & rings (*surface accumulation of hard water*): Lightly buff with 0000 steel wool. For wine stains refer to organic stains.

efflorescence (a white powder that appears on the surface of the stone): It is caused by the deposition of mineral salts carried by water from below the surface of the stone. When the water evaporates, it leaves the powdery substance. If the installation is new, dust mop or vacuum the powder. You may have to do this several times as the stone dries out. Do not use water to remove the powder; it will only temporarily disappear. If the problem persists, contact your installer to help identify and remove the cause of the moisture.

#### natural stone is easy to clean & maintain!

Call your professional stone supplier, installer or a restoration specialist for problems that appear too difficult to handle.

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