

# Natural Stone Maintenance Guide

Simple tips to get the longest life and preserve the beauty of your natural stone:

## General protection

**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.

## Sealing

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. When consulting with your stone supplier, you may find that many stones do not require sealing. However, applying an impregnating sealer is a common practice. If a sealer is applied in a food preparation area, be sure that it is non-toxic and safe for use.

*Consult with your supplier or sealing manufacturer specific to the type of sealer and frequency of use recommended.*

## Cleaning

### Regular cleaning procedures and recommendations

On average it takes a person about eight steps when entering a property to remove sand or dirt from the bottom of their shoes. 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 minimise the sand, dirt, and grit entering the property. Ensure that the underside of any mat or rug is a non-slip surface.

Ensure you dust-mop interior floors frequently, using a clean, non-treated dry dust-mop.

Periodic washing with clean, potable water and neutral (pH 7) cleaners is recommended. Soapless cleaners are preferred because they minimize streaks and film.

Mild, phosphate-free, biodegradable liquid dishwashing soaps or powders or stone soaps are acceptable if rinsing is thorough.

Wet the stone surface with clean water. Using the cleaning solution (following manufacturer's directions), wash in small, overlapping sweeps. Work from the bottom up if it is a vertical surface. Rinse thoroughly with clean water to remove all traces of soap or cleaner solution. Change the rinse water frequently. Dry with soft cloth and allow to thoroughly air dry.

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

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## Cleaning products not to use

Many suppliers offer products specifically for stone cleaning. However, there are some products you must avoid:

- Products containing lemon, vinegar or other acids may 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 if exposed to HF.
- **Do not mix ammonia and bleach. This combination creates a toxic and lethal gas.**

## Cleaning Do's & Don'ts

When it comes to care and cleaning procedures, there are recommended do's and don'ts that should always be followed:

- Do dust mop floors frequently.
- Do clean surfaces with mild detergent or stone soap.
- Do thoroughly rinse and dry the surface with clean, clear water after washing.
- Do blot up spills immediately.
- Do protect floor surfaces with non-slip mats or area rugs and countertop surfaces with coasters, trivets, or placemats.
- Don't use vinegar, lemon juice, or other cleaners containing acids on marble, limestone, travertine, or onyx surfaces.
- Don't use cleaners that contain acid such as bathroom cleaners, grout cleaners, or tub & 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.
- Don't use vacuum cleaners that are worn. The metal or plastic attachments or the wheels may scratch the stone's surface.

## Stains

### Stain identification tips

Identifying the type of stain on the stone surface is the key to removing it. Stains can be oil based, organic, metallic, biological, ink based, paint based, or acid based. If you don't know what caused the stain, consider likely staining agents that may have been present.

Here are some questions you consider:

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

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## Stain removal steps

Surface stains can often be removed by cleaning with an appropriate cleaning product or household chemical.

### General guidelines for stain removal:

1. Remove any loose debris.
2. Blot spills; wiping the area will spread the spill.
3. Flush the area with plain water and mild soap and rinse several times.
4. Dry the area thoroughly with a soft cloth.
5. Repeat as necessary.
6. If the stain remains, refer to the section in this guide on stain removal.
7. If the stain persists or for problems that appear too difficult to treat, call your stone care professional, installer, or restoration specialist.

### Specific stain removal

The following section describes the types of stains you may have to deal with, the appropriate household chemicals to use, and making and using a poultice to remove the stain.

#### **Oil-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.

#### **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.

#### **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 "Making and using a poultice" on page 4). 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 a 1/2 cup of any of the following: ammonia, bleach, or hydrogen peroxide and a gallon of water. **Reminder: do not mix bleach and ammonia.**

#### **Ink** (Magic marker, pen, ink)

On light coloured stones, clean with bleach or hydrogen peroxide. On dark coloured stones, clean with lacquer thinner or acetone.

#### **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 centres. These strippers normally contain caustic soda or lye.

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Do not use acids or flame tools to strip paint from stone.

Paint strippers can etch the surface of the stone; repolishing may be necessary. Follow the manufacturer's directions for use of these products, and 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 - please refer to the section on "Oil-based (Grease, plumbers' putty, tar, cooking oil, milk, cosmetics)" on page 3.

## **Fire and 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 and other acids in smoke). Commercially available "smoke removers" may save time and effort.

## **Efflorescence** (A white powder that may appear on the surface of the stone)

Efflorescence 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 supplier or installer to help identify and remove the cause of the moisture.

## **Etch marks** (Caused by acids 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 supplier or a professional stone restorer for refinishing or repolishing etched areas.

## **Scratches and nicks**

Slight surface scratches may be buffed with dry steel wool. Deeper scratches and nicks in the surface of the stone should be repaired and repolished by a professional.

*For stains that appear too difficult to handle call your professional stone supplier, installer, stone cleaning specialist or a restoration specialist.*

## **Making and using a poultice**

A poultice is a liquid cleaner or chemical mixed with a white absorbent material to form a paste about the consistency of peanut butter. The poultice is spread over the stained area to a thickness of about 1/4 to 1/2 inch with a wood or plastic spatula, covered with plastic and left to work for 24 to 48 hours. The liquid cleaner or chemical will draw out the stain into the absorbent material. Poultice procedures may have to be repeated to thoroughly remove a stain, but some stains may never be completely removed.

*For more information about poultices please contact your stone supplier or a stone cleaning specialist.*

**For more information about maintaining your natural stone please contact us.**