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STONE AND SLATE SPECIALISTS

Stone Floor Maintenance – What’s All the Fuss About?

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The best quality stone can provide the toughest, most resilient indoor and outdoor floor surfaces known to man. The natural stone used on the floors of some of the world’s oldest and most loved buildings is proof – some are hundreds of years old.

Irrespective of material used, a floor that is cleaned, mopped or vacuumed regularly will look new for years and years. That’s called maintenance – something that any floor surface needs. It is not peculiar to stone.

Surface damage to a floor can come from 4 culprits:

1. Wear & Tear
2. Stains
3. Damage from Acid e.g. wine, orange juice
4. Salt Attack – Pools & Seaspray

1. Wear & Tear

Wear and tear on any floor is determined by its durability, age and the volume and nature of the traffic. Over time feet certainly cause wear and tear so do toys, furniture and breakages. It’s not all bad though. Over time stone floors develop a character or patina - something manufactured tiles are incapable of.

Foot traffic can come in big and small sizes but it is rarely about the size of the foot but rather the nature of the shoe and what it carries. Shoes with soft soles are least likely to harm floors. Stilettoes that concentrate body weight in a small surface area have the potential to damage any surface – timber, ceramics, carpet or stone.

Sometimes it is not about the shoe or foot at all – it's about what is stuck to the under-surface. Sand and grit attached to the sole of a shoe or bare foot can over time scratch and pit floors causing dullness and loss of lustre.

Floors that are cleaned regularly will stay new looking for longer. Dry mopping is possibly the best way to clean stone. Mats will encourage guests to wipe their feet at the front door before carrying the garden into the living room.

Dirt is more visible on light coloured surfaces; beautiful white and off-white stone is best suited to low risk areas. Highly polished stone that is dark in colour also tends to show scratch and buff marks more than other surface finishes. There is a need to be practical when choosing stone for outdoor surfaces and the busy indoor areas. Getting good advice in selecting the stone to suit a specific purpose will save a lot of headaches!

2. Stains

Vibrant family homes are hectic especially at rush hour in the kitchen, dining or living room – things get spilt! You can't have fun entertaining without risk either. Plates get dropped and things get spilt. Red wine, tea and coffee stains get nominated as the biggest culprits in the living and entertainment areas. Grease, food, cooking oil and a myriad of other possibilities may be threats in the kitchen.

For outdoor areas, stains may be caused by birds, pets or vegetable matter e.g. leaves & moss. Discolouration will be greatest on surfaces that stay damp or that are located in shaded areas.

Stains are least likely to occur if the spillage is wiped up quickly or the source continually removed. Stains are less likely to occur on stone that is dense with low porosity, as fluid penetration into the surface will be slower.

Stains are rare on surfaces that have been professionally sealed. The most modern penetrating sealants form invisible sub-surface barriers that prevent moisture penetration for many years - if properly applied. There are many sealants on the market with substantial variation in quality, so buy from someone you trust and whose knowledge is immediately recognisable.

3. Damage from Acid

Acid comes in many unexpected forms. Orange juice is acid in nature; so is wine, soft drinks and vinegar. Some detergents and cleaning products are quite acidic as well.

Acid attack is possibly the least likely threat to a floor surface but it can be the most insidious. Many home owners are unaware that many cleaning products contain acid that may cause corrosion and pitting to hard floor surfaces. Check the label to make sure that the cleaning agent is neutral (i.e. pH 7).

Some stone is more susceptible to acid attack than others. Stone that contains calcium carbonate is most susceptible e.g. marble, limestone & travertine.

The use of acid washes by tradesmen to clean stone and grout stains after laying, is not recommended. Acid, even in mild form, can corrode the stone matrix if left for too long. If good professional laying hygiene is practised, aggressive cleaning agents should not be necessary.

4. Salt Attack – Seaspray & Saltwater Pools

Salt can cause devastating damage to just about any building material whether it is metal, concrete or stone. Some stone is quite resistant to salt attack – a property that can be determined quite easily by laboratory testing.

Salt water pools and sea spray in coastal areas are the biggest threats. Damage ranges from pitting and flaking through to delamination. Sealing will reduce the movement of salt laden moisture into the stone sub surface where most of the damage occurs. Regularly hosing down wet areas around a pool is the best prevention of all.

Sometimes salt damage occurs because of poor sub-surface drainage. Many soils around Sydney are quite saline especially in the subsoil. After rain soluble salts may rise to the surface permeating the stone from the under-surface. As the stone dries the salt forms crystals that expand in the tiny pores of the stone causing physical damage to structure of the stone. It is vital that stone is laid on properly drained surfaces preferably with a waterproof substrate.

Sealing Stone

Sealing stone is usually advisable but not always necessary; it is certainly a good insurance policy for most applications.

The science behind sealant formulations has moved with impressive speed in recent years. Some manufacturers claim their sealers will perform well for up to 15 years, depending on the amount and nature of traffic. These claims are very hard challenge. As usual, you only get what you pay for and cheap products often have short working lives.

Do not use generic, all-purpose, floor sealants on stone. Use only products that have been specially formulated for the type of stone and its surface finish.

There are two basic choices of sealant – surface or topical sealants (that leave a wet look appearance) and penetrating sealants or impregnators that result in no visible change to the look of the stone.

Penetrating sealants form an invisible protective barrier below the surface of the stone and act as repellents blocking the entry of contaminants into the pores and cavities of the stone. At the same time they allow internal moisture to escape. Penetrating sealants are used when the natural surface and colour of the stone needs to be preserved.

Surface or topical sealants protect the stone surface from staining and provide a coating that helps to preserve the stone finish in heavy wear and high traffic conditions. They will enhance stone colours and provide an attractive, gloss finish that is easy to sweep, clean or wipe. They may also be used on external walls to reduce the risk of damage from graffiti.

Before applying sealant, ensure the surface is clean and dry. Apply the sealant with a soft bristle broom, mop or paint brush. Most manufacturers recommend that two coats of sealant should be applied to new surfaces. Floors should be allowed to dry for up to 24 hours before walking on them.

Re-sealing Floors - Knowing When and With What?

Unfortunately floors are very uncommunicative – they don't fly flags to say "please re-seal me"? The most practical way of determining whether a floor needs to be re-sealed is to do a little test. This involves comparing the absorption rate of water on two sites of your floor – a protected spot (e.g. under a mat or behind a door) and a very well worn section (e.g. doorway). If the floor in the well used section of floor absorbs water more quickly than the protected site, another coat of sealant may be justified. If there is no difference, don't bother!

If re-sealing a floor, make sure you match sealant types. Solvent or water based sealant formulations are incompatible with each other. If a stone floor was initially sealed with a solvent based product, you must re-seal with a solvent based product. It doesn't have to be the same brand (though that is preferable) but it does have to be the same type.

Cleaning Stone

There are some wonderful products available that have been formulated especially for cleaning stone floors. They are pH neutral and are very efficient at lifting ingrained dirt and grease leaving the treated surface fresh and new looking. For example, Aquamix Heavy Duty Tile & Grout Cleaner does a wonderful job on sandstone.

Modern micro fibre mops are recommended to clean stone in either wet or dry mop forms

Summary – Looking After Your Stone Floor

- Keep your stone clean by wet or dry mopping the surface regularly
- Clean spills up straightaway especially food or drink that is acid in nature e.g. wine, vinegar
- Use door mats to reduce sand or grit from entering the house – they will damage any floor
- Use cleaning products that are pH neutral – check the label before buying.
- For best results, use only cleaning products specifically designed for stone.
- Seal your new floor with two coats with a high quality sealant that has been specifically formulated for the type of stone being used. Keep a record of the product you used.
- Don't re-seal a floor unnecessarily, do a test first. If re-sealing stone use the same sealant that was used previously.