

Natural Stone Cleaning & Maintenance Guidelines

Guidelines for cleaning & maintenance of natural stone materials

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Maintenance and Cleaning of Natural Stone Paving

Natural Stone Flooring is hard wearing and reasonably maintenance free. Personnel responsible for the cleaning/ maintenance should be given full information covering risks from likely misuse and this information must consist of the following: -

Risk Items

Do not attempt to move heavy equipment, plant or the like over the unprotected floor surface or any Structural Movement Joints, Access Covers, Service Ducts etc without laying suitable protection (minimum 12 mm floor boarding) to protect the works and spread the loads, this must include beneath out riggers.

Do not use cleaning machines or plant that have hard plastic or metal wheels as scoring or tracking will result, and edges and corners of stones will be damaged.

Do not allow leakage of oils from Access Equipment or the like. Use only suitable protection on the run in areas and underneath the equipment whilst in use or stationary to prevent accidental spillage on the paving. Oil/diesel stains are virtually impossible to remove and inevitably lead to replacement stones being required.

Periodic inspection of the floor is required to highlight any broken or damaged tiles. These should be made safe as soon as they are found but in any case replaced as soon as possible to ensure that they do not become trip hazards for the users of the floor and to prevent damage to adjacent tiles.

Cleaning – Section 1

Marshalls Plc urges that only a competent Specialist Natural Stone Cleaning Company with a proven track record of having carried out similar works be employed.

Competency of that company's staff/employees must also be demonstrated and must be a pre-requisite of employment. They must understand the product they are cleaning together with the cleaning materials to be used.

Fully detailed Safety Method Statements, including relevant Risk & CoSHH Assessments, must be obtained from the company and must be complied with at all times.

Employment of a non specialist / inexperienced cleaning company lacking in stone cleaning knowledge could and probably would cause the floor to not be cleaned properly, with long term dirt being sealed in and joint damage, discolouration and damage occurring.

Marshalls Plc are aware that certain cleaning agents are promoted by suppliers that purport to be suitable for use when cleaning Natural Stone; these should only be used after research into the chemical compounds of the agent by the cleaning company/consultant. Small discreet test areas must always be undertaken prior to general use.

Cleaning – Section 2

The following cleaning method is generic and a site-specific methodology for cleaning the paving should be ascertained having engaged a specialist Natural Stone Cleaning Company or from engaging a specialist Natural Stone Cleaning Consultant. Marshalls Plc are not a stone cleaning company and assume materials are installed in accordance with all relevant codes of practice and the specification.

Marshalls Plc would be pleased to supply the details of company's known to them that can provide cleaning consultation services.

Any spillage (food & drink etc) on the floor is to be cleaned up immediately; the acidic nature of certain foodstuffs and beverages will lead to the stone becoming acid etched, an almost irreversible condition, if the spillage is allowed to remain. Initially, blot the area of the spillage with paper or cloth towels to remove most of the spillage; do not wipe the spillage, as this will spread it over a greater area. Then wipe the spillage with a clean cloth and warm water before drying with a clean dry cloth. If this is deemed to be unsuccessful other methods will need to be employed.

The current Stone Federation of Great Britain code of practice recommends that the floors should be kept clean by regular daily brushing with a soft brush or vacuuming with a hard floor vacuum as dust and debris settling on the floor can, occasionally, cause slipperiness.

Prior to washing the floor ensure that it is swept as above.

The natural stone floor should be washed weekly or on an, as and when required basis, using clean warm water to which a neutral detergent has been added, in accordance with the manufacturers recommendations, which are applied with a clean cloth, mop or washer dryer machine for large areas. Remove any surplus residue and allow the stone to dry naturally.

Any product used should only be used in accordance with the manufacturer's instructions and cleaners are strongly urged to test on a discreet area prior to use.

In any case

DO NOT USE ANY HOUSEHOLD OR COMMERCIAL CLEANING AGENTS OR CHEMICALS ON NATURAL STONE SURFACES. THIS INCLUDES ANY PRODUCTS SUCH AS BLEACH, ACIDIC CLEANING AGENTS, ABRASIVE CLEANING AGENTS, WHITE SPIRITS; OIL BASED CLEANING AGENTS AND WAXES, AND HOUSEHOLD SOAPS.

Under no circumstances should additives of any sort be used during cleaning unless specifically approved by the cleaning contractor/consultant, as discolouration of stone and grout will occur if chemicals are introduced and the physical appearance of the stone could be radically changed i.e a mixture of dull and glossy patches and streaking. If the water to be used is classified as 'hard' advice should be sought from the local water authority in order to ascertain a suitable water-softening agent, which must be used in order to obtain the best results.

Major stains will need professional attention. Care must be taken to assess whether changes in stone appearance or defects will result from the introduced cleaning media. Inappropriate cleaning may serve to worsen a discolouration.

Unless there is particularly difficult stains, whatever the cause, then vigorous, rough scrubbing should not be required. Abrasives must never be used, and domestic soap leaves a slippery scum, particularly in hard water areas.

Cleaning Machinery

The largest single problem relating to successful floor cleaning concerns the correct machine to use for the project.

Marshalls Plc again urge that only specialist machine suppliers are interviewed in connection with the provision of machines. As with the cleaning company, only suppliers providing machines that have proven experience of being able to carry out the cleaning process without damage should be used. This criteria also refers to the type and quality of brushes, water tanks, vacuum attachments and wheels.

The frequency of use must also be determined from the machine manufacturer / suppliers, however water must be changed regularly and not recycled which will result in dirty joints, and surface residue, which in time will cause the store to become slippery.

Joints

Grouted joints are not impervious to both footfall and cleaning damage over a period of time and it must be understood that minute grout loss is occurring all the time. By the very nature of the material it will degrade over a period of time. Overly aggressive cleaning by the machine using the wrong type of brushes or pads will accelerate a natural degradation. Grout loss is the single most obvious visual problem that can and does occur. If grout is 'pulled out' by the cleaning machine and water is then dispensed into the joint, then damp 'picture framing' will occur on the stone surface; it will dry out in time, however the longer an open joint remains so, then this will occur continuously.

Any grout loss should be made good as soon as possible after discovery; all cleaning staff etc must be encouraged to report areas of grout loss when seen. The making

good is to be carried out by a person competent with grouting natural stone; materials used are to comply with those detailed in the specification of the construction detail. The new grout will be a different (new) shade to the existing joint until cleaned and trafficked to match existing joints, this may take some weeks.

Great care must be taken when driving over Metal Structural Movement Joints and protection must be in place. Thermal joints where mastic has been applied is less of a problem, and should not be affected.

Replacing Damaged Stone

In the event that there is a need to replace a stone(s) then it is strongly recommended that this is carried out only by a specialist company as the position of the stone to be replaced, the size/weight of the stone to be replaced and the extent of work required will need to be properly and thoroughly assessed by an expert in this field before a Safety Method Statement can be issued. Failure to comply may lead to serious injury and/or damage to the stone.

Definitions

- Hot Water - Of High Temperature (will causing a burning sensation to the skin)
- Warm Water - Having a moderate degree of heat (will not cause a burning sensation to the skin)