

Recommendations for the Installation, Finishing & Care of Sadlerstone Tiles



DISCLAIMER: The following procedures are a summary of good installation and finishing practices for Sadlerstone tiles, however they do not represent a warranty or the only methods by which Sadlerstone tiles can be installed, finished or maintained. They are not an exhaustive description of, or a substitute for, good installation and/or finishing practices, more detailed procedures or procedures in applicable building codes or standards. Specific building codes, standards or special procedures may need to be followed for certain types of installations. Failure to install and finish Sadlerstone tiles in accordance with building code requirements and good installation and finishing practices may affect system performance and void product warranty. This guide is subject to change without notice – always use the latest edition. MAY 2006

Installation

Two factors are the key to the success of a long-lasting floor – proper installation over the right kind of sub-floor and correct maintenance procedures.

When properly installed, Sadlerstone will result in a beautiful, durable and easy to maintain surface that can be enjoyed for many years. Refer to the FAQ section of the Sadlerstone website for information on the suitability of Sadlerstone for various types of installations.

The following installation procedures apply to a typical flooring installation using standard size tiles over a solid concrete substrate.

STORAGE

Inspect your order carefully as Sadlerstone will not be responsible for material that has been cut or installed. Pallets or crates should be carefully stored indoors on a level, dry surface in a mild, dry environment. Do not store crates outdoors in hot weather. Pallets of tiles should not be stacked, but fully enclosed crates can be stacked up to two high.

Where the installation environment is air-conditioned, or where the ambient conditions in the installation environment vary from the storage conditions, the tiles should be moved to the final environment and three sides of the crates or pallets removed and the slights between the tiles pulled out sufficiently for air to circulate around the tiles until they are sufficiently seasoned prior to installation – this would normally be expected to take from 3 to 7 days.

PREPARATION OF SUB-FLOOR

Substrates shall be furnished clean, dry, smooth and levelled to a tolerance of 3mm in 3m (1/8" in 10'). Any curing compounds, sealers and all existing mastics must be removed. The substrate should comply with appropriate standards, using a membrane system or equivalent moisture control where necessary. Joints, construction seams, or other irregularities should be filled with quality patching materials meeting industry standards. All contaminants such as grease, wax, oil, sealers, curing materials and old adhesives must be completely removed.

All concrete substrates must be scoured or shot-blasted prior to installation (patching or levelling materials included) to loosen dirt, remove weak surface layers, to provide a key for screed or adhesive and reveal any cracking that may exist in the sub-floor.

Cracks should be repaired and their cause rectified. Remove all dust by sweeping and vacuuming. Absorbent surfaces need priming. The maximum moisture content for concrete substrates is 5.5%.

Most surfaces will require a screed to achieve maximum levelness and adhesion of tiles. Screeds are generally 25mm (1") or more thick and must be dry before commencing tile installation. Screeds without chemical accelerators usually require 7 days per centimetre (4/10") of thickness to dry. In some cases a thin levelling compound may suffice.

NOTE: An uneven sub-floor may result in lipping of tiles; a poorly prepared sub-floor may result in delamination and 'drumminess'.

DESIGN AND DETAILING

Various installation conditions and types of sub-floors, dimensions of tiles and end uses (e.g. timber sub-floors, slabs with sub-floor heating, long tiles, hot weather installations, cladding, stair treads etc.) require different approaches or additional steps in the installation preparation, method and materials. In such cases, provide the project engineer with details of the technical characteristics of Sadlerstone tiles and tile dimensions for the engineer to assist with drawing up a specification. Refer also to the Sadlerstone Product Information guide and technical information on the Sadlerstone website. For atypical installations or for further advice, please contact Sadlerstone or your Mapei adhesive specialist.

All sub-floors/pavements move and provision must be made, otherwise the floor tiles and/or the joints will crack and grouting may become loose.

Expansion joints must be provided as per the engineer's specification. Existing joints in concrete sub-floors must be carried through the tile work and shall conform to architectural details and appropriate standards. Expansion joints must be installed where the tile abuts restraining surfaces and directly over cold joints in structural surfaces and shall conform to architectural details. Make joints through the tiles work directly over structural joints and at least as wide. Additional to perimeter joints, interior installations shall have expansion joints of not less than 6mm (1/4") spaced a maximum of 6m x 6m (20' x 20'), exterior areas a maximum of 4.5m x 4.5m (15' x 15'), or at centres determined by the project's structural engineer.

Expansion joints shall be raked or cut through the setting bed to the supporting slab or structure.

Balconies and similar wet areas require tanking prior to tile installation and installations subject to rain or run-off water should have sufficient fall to prevent water ponding on the surface of the tiles.

INSTALLING SADLERSTONE TILES

1. Sadlerstone, a product of natural stone, is subject to colour and tonal variation and we recommend blending tiles from several crates/pallets.
2. Sadlerstone is cementitious and may have residues on the surface. This can be removed during the cleaning and buffing process after installation.
3. Sadlerstone is not intended for installation methods employing large quantities of water (e.g. don't add water to the adhesive mix etc.).
4. Install over flat, level and stable cured substrates. Allow for expansion/control joints.
5. Construct a prototype area to check setting methods, blending, grout joints etc.
6. For most flooring installations use the Mapei Granirapid thin set adhesive system, or your Mapei specialist's recommendations. (www.mapei.com).
7. Mix the two parts of Granirapid following Mapei's instructions. Make straight ridges of adhesive using a trowel with 12mm to 15mm (1/2" to 5/8") semicircular notches. Tiles over 250mm (10") square require back buttering.

Press tiles into position with a forward and back motion perpendicular to adhesive ridges to collapse the ridges and ensure 100% full bedding and a true surface without lipping. Do not beat with a mallet to set tiles as this may cause impact fractures. Adhesive bed will compress to approx 3 to 5mm (1/6"). Recommended grout joint width is 0.5% of the long side of the tile.
8. Tiles should be cut using a sharp diamond blade in conjunction with water to avoid chipping of edges.
9. Remove excess adhesive from the surface with a damp cloth or sponge while it is fresh. Protect installation to prevent marking, water spotting and foot and other traffic prior to grouting and keep dry.

10. Use a quality proprietary grout, following manufacturer's instructions. Joints should be full and free of all voids and pits. Once grout has been applied and starts to dry, remove excess grout immediately from the surface of the tile.
11. Protect the floor from traffic and ensure spillages, drips, wet buckets, cups, footmarks etc. are not left on the tile surface at any time. If necessary, when adhesive and grout are completely dry, cover with hardboard or equivalent material and keep dry prior to the final clean, buff and seal. Don't use duct tape, gaffer tape or similar adhesive tapes on the tile surface.
12. Do not use harsh chemicals (e.g. vinegar, acids, bleaches, polysolvents) or abrasives (steel wool, wire brushes etc.) during clean up.
13. Before handover, ensure that the tiles are cleaned, buffed and sealed using the recommendations that follow.

Finishing and Care

Sadlerstone is the world's finest, unique, engineered stone. It is a cement agglomerate that will gain strength and resilience throughout its life. It is first and foremost, although in a very sophisticated form, a concrete tile and, as such, will require care, particularly in its early life. By sealing with a good quality sealer less time can be spent maintaining and more time enjoying the beautiful and unique surface.

There are two main types of sealers – penetrating (impregnating) sealers and surface sealers:

- > Impregnating sealers repel most water and oil based contaminants, having little effect on the tiles' frictional properties and appearance.
- > Surface sealers on the other hand provide a physical barrier over the surface but, generally, wear and require regular re-application.

Impregnating sealers work along a similar principle to 'fabric protection' or 'Scotchguarding'. They will hold water and staining materials in suspension for a short period of time to allow immediate clean-up. They won't prevent surface etching caused by acid aggression (e.g. lemon, vinegar etc).

Sadlerstone apply a quality impregnating primer seal in the factory that assists with grout release and limits possible staining prior to the final clean, buff and seal.

THE SADLERSTONE NATURAL LOW SHEEN LOOK

The unique low sheen appearance of Sadlerstone is best maintained using an impregnating sealer. High quality impregnating sealers such as Huestone Natural Finish Stone Seal (or equivalent), is recommended.

Sadlerstone recommends sealing using solvent based impregnating sealers (as water based sealers are less effective). An ideal sealer for water, salt and stain protection is Huestone Natural Finish Stone Seal, or for enhanced results in wet areas (i.e. in Kitchens, bathrooms), Huestone Natural Finish Stone Seal followed by Huestone Dense Stone Sealer.

For premium sealing results use a Sadlerstone recommended applicator or floor finishing professional. Huestone provides a performance warranty on their sealer when it is applied by Sadlerstone recommended applicators and maintained following their procedures.

Follow the sealer manufacturer's guidelines but ensure, prior to sealing, the floor is cleaned thoroughly and all marks and contaminates are removed. Use only neutral (pH 7) detergents such as Huestone Neutral Cleaner or Johnson's Stride (www.jwp.com). Impregnating sealers begin to work immediately after curing but take their full effect after 30 days, so take extra care during this time. They do not, however, completely stop water shadowing or dirt getting into the open pores of the surface.

The long-term performance of your Sadlerstone surface treated with a quality impregnator will depend on thorough cleaning and good housekeeping. Accordingly, it is most important to follow the ongoing care guide (on the next page). Enjoy your Sadlerstone floor and do not hesitate to contact your Sadlerstone care professional or our customer troubleshooting service.

THE SADLERSTONE HIGH GLOSS FINISH

For smooth tiles, the high gloss look is achieved using surface sealers and polish. With this finish you are placing a base sealer and then maintaining a physical barrier over the surface with a top coat (or sacrificial polish).

A surface seal is often selected in areas where there are frequent spillages such as shopping centre food courts, stand-up bars and amenities blocks. For the base coat we recommend water-based acrylics such as Johnson's Jonseal. We don't recommend solvent based surface seals as they can craze, mark and crack the Sadlerstone surface. A wide range of choices exists for the top coat with high gloss through to satin finishes.

THE SADLERSTONE TERRAZZO SATIN FINISH

The preferred Sadlerstone terrazzo finish has a wet/satin look. This tends to bring out the exposed aggregate of the terrazzo and the unique background of the cement matrix. To achieve this look Sadlerstone recommends Huestone All Stone Preseal followed by Huestone Citrus Stone Shield, or equivalent. This organic solvent based sealer is easy to apply and long lasting.

Again, before any type of seal, we emphasise the need to thoroughly clean and prepare the tile surface first.

Finishing Your Sadlerstone Floor

For best results engage a recommended floor-finishing professional. In areas where they are unavailable, the following information will assist your local professional to achieve a high standard of finish.

A. PRE-SEALING CLEANING INSTRUCTIONS

- > WITH FLOOR BUFFING MACHINE - SMOOTH SURFACES
1. Allow the adhesive and grout to sufficiently cure.
 2. Remove protective coverings, sweep floor thoroughly to remove all dust and loose grit particles.
 3. Wash the floor by using a mop to distribute liberal quantities of water and ph neutral detergent (e.g.Huestone Neutral Cleaner or equivalent) and a 40cm (16") low speed floor buffing machine (e.g. Polyvac) equipped with a blue nylon pad. Work slowly and steadily, agitating the mixture, passing in both East/West and North/South directions. Do manageable sections such that the floor does not become dry during this process.

4. Remove the slurry with a wet vacuum and (or) a squeegee and a clean damp mop.
5. Rinse the floor thoroughly, using clean water and a clean damp mop.

Immediately remove all rinsing water and allow the floor to dry.

6. Bring the floor to an even sheen by buffing with a dry red nylon pad lubricated with Huestone Natural Finish Stone Seal lightly sprayed on the surface with a hand sprayer, again, working slowly and steadily in both East/West and North/South directions. Proceed to item 7.

> **WITH LOW SPEED FLOOR BUFFING MACHINE - TEXTURED AND TERRAZZO SURFACES**

Please refer to steps (1-5) above. The final dry buff is not required (step 6). Do not use acid washes. Contact Sadlerstone for any troubleshooting advice.

> **BY HAND - SMOOTH, TEXTURED AND TERRAZZO**

Please refer to steps (1-5) above. The final dry buff is not required (step 6). Do not use acid washes. Contact Sadlerstone for any troubleshooting advice.

B. NATURAL LOW SHEEN FINISH SEALING INSTRUCTIONS

The following instructions apply to Huestone sealer products applied to Sadlerstone smooth and textured tiles. If using another sealer, follow that manufacturer's guidelines.

Complete the following instructions in 5sqm (50sqf) areas:

7. Using a lambswool applicator, evenly apply one coat of Huestone Natural Finish Stone Seal. Apply at a rate of 20-25sqm/litre (200-250sqf/qt). For textured tiles use a low-pressure hand spray.
8. After allowing 15 to 20 minutes for the sealer to penetrate, with a clean, dry cloth remove any excess sealer. Apply a second sealer coat, repeating step 7, using Huestone Natural Finish Stone Seal. For premium results (such as internal areas subject to spillages, ie kitchens, bathrooms), apply additional coats of Huestone Dense Stone Sealer.

9. Again, allow 15 to 20 minutes and with a clean dry cloth remove all excess material - do this until no sealer remains visible on the surface.

10. For smooth Sadlerstone tiles, wait an hour then rub surface with a clean dry cloth, or if available buff floor with a floor buffing machine using a white nylon pad (or if the sealer looks patchy, a red pad).

11. Do not wet or wash the floor for a period of at least 48 hours. (Impregnating sealers take 30 days to achieve their potential so take extra care during this time.)

C. THE SADLERSTONE TERRAZZO SATIN FINISH

Please refer to steps 1-5 above for cleaning first. Complete the following instructions in 5sqm (50sqf) areas:

7. Before grouting. Using a lambswool applicator, evenly apply one coat of Huestone All Stone Preseal. Allow 10 minutes for product to penetrate then remove excess with a clean cloth. Do not allow preseal to pond on surface. Allow at least two hours before grouting. Then go to step 8.
8. Using a lambswool applicator, evenly apply one coat of Huestone Citrus Stone Shield (or equivalent), at a rate of 10-15sqm/litre (100-150sqf/qt). A low-pressure hand spray could be used externally.

9. Allow 1 hour for the sealer to penetrate. Once dry apply a second coat.

10. No buffing is required.

> **ON-GOING FLOOR MANAGEMENT**

The long-term good looks of your Sadlerstone floor will depend on thorough cleaning and good housekeeping. You must:

12. Mop up any spills immediately and, if necessary spot clean with Huestone Neutral Cleaner and a white non-scratch scouring pad.
13. Sweep often.
14. It is **strongly recommended** that the Sadlerstone surface is given a lot of attention during the first six months after installation. It must be mopped at least twice a week, and spillages should not be left to evaporate on the surface.

For regular cleaning, mop with a quality ph neutral detergent such as Huestone Neutral Cleaner, or equivalent. For heavy use areas scrub surfaces using a neutral detergent and a Doodlebug with a blue pad, then mop up slurry with a clean damp mop.

15. Dry buffing with either a red or white nylon pad using a floor buffing machine can be used to increase the sheen of internal surfaces. Spray buff liquids such as Johnsons Snapback enhance the sheen. Regular buffing for high traffic application is recommended. It is suggested that annual buffing is scheduled for residential applications.

16. Always use protectors on chair and table legs and consider the use of properly sized walk-off mats. For gloss finished floors, follow the surface sealer manufacturer's guidelines.

> **STAIN REMOVAL**

Most stains can be removed through wiping, scrubbing and buffing using a quality ph neutral detergent such as Huestone Neutral Cleaner and routine care. Minor waterspots will be diminished with buffing (a small disk sander/polisher with a 3M surface conditioning disc is best). If the stain is particularly difficult to handle contact a stone care professional.

For contact details of your local recommended Sadlerstone installers and cleaning, buffing and sealing contractors contact your distributor:



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