

INSTALLATION GUIDE

TERRAZZO

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Our genuine Italian Terrazzo is manufactured containing traditional white cement, Italian marble chips and spring water from the Italian Alps. A methodology refined through generations. The manufacturing process uses state of the art machinery with Italian artistry to meticulously control chip size, cement and stone.

The final result being timeless, resilient, and authentic Terrazzo.

PRODUCT VARIATION

In order to manage the expectations of customers and installers, we need to understand the nature of Terrazzo. Terrazzo is akin to natural stone. Therefore, it has imperfections that are natural in character. This variation is intrinsic to natural stone and ensures that every installation is unique.

Our goal is to set realistic expectations with our clients. Before ordering, ensure that considerations have been made to understand what variation is to be expected with this product.

SAREEN STONE STANDARDS

We specialise in the import of premium-quality natural stone. In operation since 2003, with our industry experience, we've established close relationships with quarries and suppliers from around the world. This enables us to source and develop products that meet the unique needs of our clients.

PINHOLES

The factory advises that pinholes are an unavoidable part of the production process. The pinholes can be filled at the time of either processing in the case of slabs, or grouting when tiling. We advise that the tiles should be adhered, then grouted over the entire face. After cleaning, apply a coat of water-based sealant of your choice and follow the manufacturers' guidelines.

EDGE CHIPPING

Edge chips while uncommon do sometimes occur when small pieces of the aggregate become dislodged and cannot be totally avoided. These tiles can be used as cuts or placed in an area rarely seen or even hidden. The edge chips are quite rare and are often only ever 2 to 5mm, which can occur due to the transportation process.

MOISTURE

Batches are checked as they arrive. All packaging that would restrict drying is removed. The Terrazzo is completely cured for 1 month in the block stage before being cut into slabs and then tiles. This cutting process further wets the tiles.

When removing tiles from the crate you may notice variation in tone between areas that are dry and areas that are wet. This is normal and especially noticeable with designs that have grey and black backgrounds.

This moisture will dissipate soon after laying and the tiles will become more even in tone. This can take some time depending on atmospheric conditions and the location within the house.

After grouting **it is important not to cover the tiles** with boards or core-flute as this will trap moisture within the tile. If time and space allow, the Terrazzo can be unpacked and carefully stacked on their edges so that air can flow and the tiles dry prior to installation.

ADHESIVE, GROUT, WATER-PROOFING AND SILICON

It is important to follow the adhesive and waterproofing guidelines as set out in the Ardex report on Terrazzo. Ask your representative for a copy of this report.

Failing to waterproof effectively may lead to efflorescence where the salts from the screed migrate through the Terrazzo and stain the surface. Using the incorrect adhesives may add excess moisture and lead to very slow drying.

Terrazzo is moisture sensitive and porous, and needs to be considered when installing.

Should you wish to use alternative adhesives, we would recommend you have the tiles tested.

In all cases, if you are unsure about any aspects of laying Terrazzo or suitability for a specific job, independent professional advice should be sought.

SLIP RESISTANCE

The finished surface of our Terrazzo is a Standard Honed 120 and tested in Europe as an R9. GripTek were engaged to treat and test our Terrazzo in order to achieve a higher slip rating that may be required for external and or commercial applications.

Note that this process is done on site and a report will be issued for the owner where they need to comply with local ordinance.

CONSIDERATIONS

Every installation must consider the on-site conditions and refer to the relevant Australian Standards for trade practices, and manufacturer's installation and usage guides. As every site and conditions can differ, this document is to be used as a guide only.

Your trade professional, contractor and /or Specifier will be able to advise if the following recommendations are appropriate or need to be adjusted. The advice in this document is a guide only and is not to replace the services of professionals.

DELIVERY AND STORAGE

Once your product has arrived, please check the order for correct product and quantity. It is important to establish if any additional product is required quickly as new batches may vary.

We suggest crates are stored out of direct sunlight and rain, single stacked and on a level surface.

SUBSTRATES

Preparation is key to ensure a successful installation. All substrates on which the products are installed must be correctly cured, mechanically strong, free from loose parts, grease, oils, fats, waxes and paint. The substrate must be suitable for supporting all foreseen loads and stresses.

Shot blasting the surface gives it the proper concrete surface profile that will accommodate the Terrazzo flooring system.

Crack detailing is recommended to prevent the cracks and fractures from moving upwards into Terrazzo installation. Additional substrate priming creates a strong bond between the substrate and the Terrazzo installation.

CONTROL JOINTS

Control joints are recommended for the substrate (concrete sub base). The joints in the concrete base should be continued through the mortar bed and grout joint. Control joints help absorb variations in the flooring caused by temperature swings and other movement in the sub grade, concrete base, mortar or actual tile itself.

In addition to structural concrete joints, tiled surfaces should also include appropriate control joints every 20m² that penetrate through tile and the bedding mix, but not through the concrete substrate.

Generally, the overall floor is divided into compartments where technical expansion joints are set out in a crosswise and/or longitudinal direction (minimum 5mm joints every five metres). We recommend you consult a structural engineer when designing the base. Control and Movement Joints should be carried out in accordance with AS3958.

PRIOR TO INSTALLATION

Prior to installation it is advisable to open all crates and blend the tiles from different crates to achieve a congruent appearance. A few pieces may have chips or marks and these can be used for cuts. An allowance of 10% is added to allow for wastage, cuts and continuation of batch. Installation of the product constitutes acceptance of the product.

When installing terrazzo, it is imperative that the correct system and products are used to ensure you receive the best possible result.

PRE SEALING

Aqua Mix Problock may be used to seal the back and edge of the tiles prior to laying. This will prevent further moisture from entering the tiles from the adhesive and grout therefore allowing more rapid drying through the top face.

Please refer to Aqua Mix's application instructions and recommendations. **Note that we only recommend this sealer for pre-sealing the back of the tile**, as it will allow for good adhesion. Other sealers may form a bond break and lead to adhesive failure.

<https://aquamix.com.au/products/sealers/problock-pre-sealer/>

WEATHER CONDITIONS

Avoid laying stone in extreme weather conditions or if rain is expected.

It is not advisable to lay stone on days above 30 degrees Celsius as this can affect the bonding of the adhesive with the stone.

INSTALLATION

Installation methods will vary depending on factors such as the size of the stone, the moisture sensitivity and where it is to be installed.

Adhesives: All natural stone is porous to some degree, so a moisture sensitive adhesive specifically for natural stone must be used. It is essential to

read and follow the manufacturer's advice. 100% adhesive coverage is required.

Mechanical fixing: this may be necessary for wall applications. Always consult your Engineer.

Whether installing onto a waterproofing membrane, concrete base or onto a screen bed, the immediate surface that the adhesive will be adhered to must be allowed to cure according to manufacturers' specifications.

LAYING

The laying of stone tiles is called fixing and is usually commenced from the centre of the area. Minimise the number of cuts and locate cuts in the least noticeable locations.

If primer is being used, ensure this is completely dry before commencing fixing.

When applying the adhesive to the tile, it must be applied using a notch trowel and the tile back buttered to provide maximum coverage to remove any voids.

The technique for notch trowelling is to hold the trowel at a 45 degree angle and spread the adhesive in one direction. The tiles are then pressed into position with a twisting motion so that the adhesive forms a solid bed under the tiles.

Correct installation practices will avoid spot marks and streaking in the stone after it has been laid.

CUTTING

We recommend using a wet saw with the appropriate diamond blade to ensure a clean cut. The stone should be washed immediately after it is cut to avoid cutting paste drying and staining the surface of the product. The correct PPE should always be worn, and Work Health Safety conditions met. For WHS information refer to safeworkaustralia.gov.au

GROUT

The grout colour choice is personal, but the general rule of thumb is to choose a colour similar to the stone so that the stone is the hero, not the grout.

It is important to grout the whole surface of the tile to avoid the formation of stains caused by different absorption of the grout in the micro porosity of the tiles and to avoid framing.

Wait 2-3 days after the tiles installation before grouting of joints.

Dampen the stone and grout joints with a wet sponge. Apply the grout to the full depth of the joints, being careful not to leave any gaps or air pockets. Remove excess as you go and clean the entire surface with the wet sponge once the grout is touch dry, but before it completely hardens.

Ensure all grout residue is cleaned from the surface of the stone within the time limit as specified by the grout manufacturers' instructions.

CLEANING PRIOR TO SEALING

Once the grout has set the stone should be thoroughly cleaned to remove any dirt or residue. Firstly, use a broom to remove loose debris then apply a pH neutral cleaner (never acidic) and clean with a stiff broom or nylon pad. Rinse thoroughly.

SEALING

We recommend all stone be sealed to help protect against staining and to allow easier cleaning.

For sealing of the Top surface, we recommend Aqua Mix Sealers Choice Gold. This can be applied over the entire surface including grout after installation, drying and cleaning of any grout haze. Please refer to Aqua Mix's application instructions and recommendations. Please note that if the tiles are still wet, Sealers Choice Gold can be applied as it allows for vapour transmission and the tiles will continue to dry.

<https://aquamix.com.au/products/sealers/natural-look-sealers/sealers-choice-gold-rapid-cure/>

Engaging a cleaning and sealing specialist is always recommended for a professional result.

EFFLORESCENCE

Efflorescence is what occurs when water brings soluble salts to the surface. When the water dries, it leaves white calcium salts behind. Efflorescence should not be confused with grout haze, which is maintenance and cleaning issue.

Efflorescent stains should be scraped off with a paint scraper, swept up and disposed of before any stain removal starts. Once the efflorescence stains have been removed, fill any small holes in the grout and seal the paving again. If water is not getting in, then efflorescence won't be coming out.

PREVENTING EFFLORESCENCE

Avoiding efflorescence involves three key steps. Australian Standards recommend that a membrane is laid over a sand/cement screed to stop any soluble salts being brought to the surface and minimise water entry into the paving system, and to direct any water that does get in to an exit point where staining won't be obvious.

Cutting down on the entry of water involves good grouting, filling any small cracks and applying sealer. Hosing the surface can increase efflorescence so we advise to sweep instead.

Directing water that enters under the paving to a drainage outlet needs to be planned before the paving goes down. This must involve the substrate not having any ponded water. It can involve laying strips of drainage cell under the screed to make easy escape for water to drain. It is common to have an angle in the screed to prevent water under paving on a deck from carrying water down behind stairs.

ONGOING MAINTENANCE

Upon sealing, the floors should only be cleaned with a neutral pH cleaner. All-purpose cleaners that contain crystalizing salts, alkali, or acids should be avoided, as well as inorganic and water-soluble cleaners.

Since Terrazzo is a porous material, it can easily be etched by acids. Spilled carbonated beverages, or fruit juices can easily leave marks on the tiles. To avoid stains, immediately wipe spills with a wet cloth.

Terrazzo can be easy to maintain as long as it is properly grouted and sealed.

IMPORTANT WARNING: Do not use acidic cleaners on your natural stone as it may affect the colour and texture of your stone. We recommend seeking help from a professional prior to use. Contact your installation contractor or one of Sareen Stone's Natural Stone specialists for further information.

Note: Above instructions are for reference purposes only. Please follow label directions on back of actual product.

Interior floors: Dust mop interior floors regularly using a clean, non-treated, dry dust mop. 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 minimize the potential damage from these particles.

Be careful when using a vacuum cleaner as the metal or plastic attachments or wheels may scratch the surface. Damp mop the stone floor with a diluted solution of a neutral cleaner designed for stone. Keep off floor until completely dry, as wet stone floors may be slippery.

Exterior surfaces: Should be swept and then washed with water or a pH neutral cleaner designed for stone.

Bathroom and other wet areas: Periodic use of a neutral stone cleaner will remove any soap scum or hard water deposits that may have formed. In the bath, or other wet areas, using a squeegee after each use can minimise soap scum and hard water deposit build-up.

What to do when a spill occurs: No matter how careful, spills can happen. A quick response and the right solutions can keep spills from damaging your stone or degrading the sealer.

TROUBLESHOOTING

Etch marks: Highly acidic substances such as orange juice, coffee, vinegar, wine, tomato products, mustard and many soft drinks will "etch" most marble, limestone and travertine. Sealing allows you time to wipe up a spill, but it cannot stop the chemical reaction that may leave a dull mark.

General cleaners not specifically designed for natural stone are not recommended. These may etch away the polish, discolour the surface, scratch the stone or degrade the sealer. Professional refinishing is the best way to permanently remove etch marks and restore your natural stone's even finish.

Organic Stains: For most organic stains such as tannins from leaves, sawdust, food, moss, or mould, we advise to remove the remains of the stain and dry the area with a clean white cloth. Spray the area with a neutral stone cleaner and wipe off excess with a clean cloth.

Inorganic Stains: Most inorganic stains such as rust, vanadium, copper, and other metal, paint and chemical stains require an inorganic solvent, such as oxalic acid, paint stripper or solvent to remove them. These products should only be used by a professional.

Oily Stains: If you identify the stain as having an oil base (from foods like salad, cooking oils, butter or some cosmetics) you may be able to remove the stain using a poultice. A poultice will wick up the stain from deep within the stone.

Scratch Removal: Scratches in natural stone surfaces can occur but are not permanent. Surface scratches can often be removed with fine sandpaper or honing powders.

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Please note these Installation tips are provided in good faith and to the best of our knowledge and experience

at the time of writing. Always check against the relevant Australian Standards for trade practices at the time of installation. In no way do these tips replace the services of professional contractors and / or consultants. The best advice is to always seek the services of a qualified professional when installing our products.