

TERRAZZOTILES

Bespoke Tile Design

TERRAZZO CEMENT TILES

MATERIAL & CHARACTERISTICS

It is important to gain an understanding of the material composition and characteristics of the various types of Terrazzo tiles when specifying and prior to installation.

Composition

Single Layer Terrazzo tiles are produced finished and do not require further polishing following installation. Tiles are manufactured using specialised techniques with the final product consisting of more than 75% natural stone bonded with an inorganic binder (Portland cement) and pigment oxides used for colour. This allows the density to increase, resulting an exceptionally strong but thin profile product with excellent physical mechanical properties. All monolayer Terrazzo tiles are classified moisture sensitive and the right choice of materials and installation methods is essential to the success of your installation.

Aesthetic

Consistent with all cementitious and natural stone products, tonal variation in the final aesthetic will appear due to the natural materials used. During and immediately following installation, Terrazzo tiles will continue to release small amounts of moisture and will typically show a lighter shade to the perimeter of the tile known as "TV effect". This is a result of evaporation of moisture and will reduce over time.

Edges are usually straight cut and due to the nature of the material, chipping can occur between production and delivery. This should be limited to 2-3mm and will not be noticeable once grouted.

Versatile

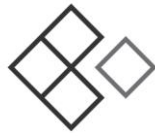
Terrazzo tiles can be polished in-situ to achieve a completely flat floor surface. This is an option sometimes considered for shopping centres, train station concourses and airports where trolleys are being utilised.

Edging & Profiles

Completely homogenous, Terrazzo tiles can be profiled to create edging as required. Only use experienced stonemasons with required tools and methods to achieve the optimal result.

INSTALLATION

Terrazzo Tiles should be installed using only suitably qualified reputable contractors experienced in Terrazzo and Natural Stone installations and must be installed using specialized fixing methods and proprietary materials. Following installation, it is recommended that a reputable sealing contractor carry out all cleaning and sealing applications - See our Terrazzo Tiles Installation Guidance.



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STORAGE

Terrazzo tiles are packed and supplied humid or damp to maintain the balanced moisture content within the tile during transportation. It is important to maintain the balance in humidity between the surface and back of the tile during storage.

Once they arrive, we recommend that you remove the tiles from their packaging and store the tiles vertically in a dry, well-ventilated area. Ideally, you will store them with spacers between the tiles to allow them to dry correctly.

- Do not store tiles in direct sunlight or in high temperatures.
- Do not stack pallets.
- Protect tiles/pallets from rain or wet conditions.
- Protect from high levels of dust.

HANDLING / SEASONING

Prior to installation remove Terrazzo tiles from their packaging and allow them to season in their final environment ensuring your Terrazzo tiles are ready for installation. Ensure the back of the tile is free from dust and any impurities that may compromise adhesion. Seasoning depends on the tile format, size & thickness as well as the final environment & climate conditions.

PERFORMANCE REQUIREMENTS

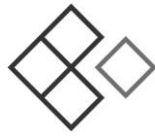
Prior to commencing installation it is important to gain a thorough understanding of the application. Determine the expected type/level of traffic and loads for the application and the intended cleaning & maintenance regime. This will assist in the correct selection of materials and methods used for individual project installation.

Obtain information regarding any structural conditions such as: ground or building movement; excessive deflection or delayed shrinkage onset of the substrate and environmental conditions such as excessive water, sunlight, heat or frost.

For applications in an existing building or over substrates that have been in place for a long period of time, check the substrate for cracking or signs of obvious movement that may affect the new floor system performance. Keep in mind different floor finishes respond to movement differently. This can assist to isolate or rectify any structural issues prior to the installation of the new floor finish.

SUBSTRATE REQUIREMENTS & PREPARATION

Substrate adequacy is imperative to the installation performance as excess moisture, shrinkage, deflection and impurities may compromise floor system performance. Confirm any structural conditions such as: ground or building movement; excessive deflection or delayed shrinkage onset of the substrate and environmental conditions such as excessive water, sunlight, heat or frost. The structure and substrate must meet the relevant building code and/or standard.



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Screeds are usually required to build up to and/or level the surface for installation and when installed as a separating layer to the structural substrate may aid with absorbing deflection, shrinkage and/or cracking in the structural slab without transferring it to the tiled surface. All screeds must meet the relevant building code and/or standard.

Surface preparation must be in accordance with British Standards for the specific background being adhered to so that the surface is adequate for maximum bond.

When using primers and/or membranes attention is drawn to the need for complete compatibility between –the substrate and all primers/membranes used on the substrate; and the particular adhesive used to fasten the tiles to the substrate.

For typical installations over a reinforced concrete substrate we recommend Mapei Primer G water dispersion synthetic resin primer.

SETTING OUT & MOVEMENT JOINTS

Installation should be related to the siting of movement joints. Movement joints should be detailed on working drawings by the engineer should be strictly adhered to.

Movement in the structure or substrate is the most common cause of a reduced lifecycle of a floor system. Planning for anticipated and/or expected movement is challenging and often overlooked. Cracks may occur when forces either externally, internally within a building, or as a result of chemical changes within the building's materials are greater than the floor system can withstand. We recommend that contractors consult the building's structural engineer to obtain confirmation of the expected movement of the building and the substrate prior to installation.

TILE FORMAT, SIZE & THICKNESS

Tile size and format for project installation is dependent on aesthetic intent and performance requirements of the floor system. Depending on the final installation the tile format and size may impact the final performance of the finished floor system.

Floor Use:

For tile dimensions up to 600mm*600mm we recommend a minimum thickness of 20mm.

For tile dimensions from 600mm*600mm up to 1200mm*1200mm we recommend a minimum thickness of 30mm.

Wall Use

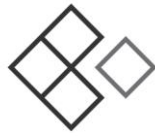
We can offer tile dimensions up to 600mm*300mm in 10mm thickness. Above that size we recommend 20mm thickness.

Full slabs of 3050*1250mm can be used for wall use.

Terrazzo Tiles (Camden Stone & Tile Ltd)

14 Englands Lane - London - NW3 4TG

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Thickness Tolerance and Calibration:

Terrazzo Cement tiles can have a thickness tolerance of + or - 2mm in accordance with norm AN13748 -2 (paragraph 4.2.2.3) This is due to the fact that the material is cut from blocks into slabs, which are then cut into tiles and honed. Slabs can have +/- 2mm thickness variation and the process of additional honing can also affect thickness.

JOINT WIDTH & FINISHED SURFACE

Joint Width must be specified to ensure the final installation meets not only the aesthetic intent but also the performance requirements of the application. When specifying Terrazzo tiles we recommend joint widths in accordance with British Standards.

The finished surface of the tiled surface should be flat and true to within tolerance. Lippage is inherent to all installations but should be kept to a minimum. Terrazzo Cement tiles are produced finished however can be polished in-situ following installation using specialized equipment to achieve a completely flat floor surface. This process can also be used to rectify excess lippage in the finished surface.

SET-DOWN & SCREEDS

Requirements can vary in accordance with specific requirements of the installation as well as tile thickness, adhesive bed and the thickness of the screed or levelling material (when required).

Screeds are usually required to build up to and/or level the surface for installation and when installed as a separating layer to the structural substrate may aid with absorbing deflection, shrinkage and/or cracking in the structural slab without transferring it to the tiled surface. All screeds must meet the relevant building code and/or standard.

ADHESIVES & FIXING MATERIALS

All monolayer Terrazzo tiles are classified moisture sensitive and the right choice of materials and installation methods is essential to the success of your installation. Some adhesives carry a warning that they may react adversely with certain types of tiles.

Terrazzo Tiles recommends the using Kerakoll fixing materials.

For typical installations over reinforced solid concrete substrates:

PRIMER - Kerakoll Primer A water dispersion synthetic resin primer

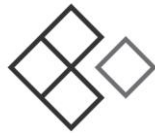
ADHESIVE - Kerakoll Bio Gel Revolution rapidsetting hydrating cementitious adhesive.

GROUT - Kerakoll Fugabella Eco Flex Fast setting and drying, high performance, anti-efflorescence grout, polymer modified, for joints from 2 to 20 mm OR Fugalite Bio Two-component acid-resistant epoxy grout. Recommended for shower bases, balconies and high-performance applications.

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BONDING & GROUTING

When installing Terrazzo tiles, it is imperative the tiles are bedded to achieve the maximum possible bond, ensuring the adhesive bed is free of voids beneath the tile. In accordance with British Standards, tile sizes 40x40cm or greater require the method of "back-buttering" when installing to achieve 100% coverage of the tile.

Installations are at their most vulnerable during and immediately following installation. As climate conditions can vary it is important to avoid installations during extreme weather. Protect the installation from water and heat during the bonding process.

Only when the adhesive has completely set and the joints are free from dust and debris, completely fill the joints using the appropriate grout for the application. Terrazzo tiles are porous and extra care should be taken when grouting. Do not use dark or contrasting grouts and completely cover the entire surface of the tile with grout to avoid "picture framing" and ensure all grout residue is cleaned using proprietary grout cleaners. Do not allow grout to dry on the tile surface, as it will become difficult to remove. A suitable pre-sealer can be applied to the tiles prior to grouting to assist with grout release.

FINISHING & SEALING

Following installation inspect the finished surface for any stains, damage and/or imperfections as some items may be easily repaired. Use only proprietary neutral detergents to clean the surface. Do not use harsh chemicals, acid or alkaline and protect the installation from construction damage. Do not use scissor lifts until the installation is completely cured.

Terrazzo tiles are porous and it is recommended that a reputable sealing contractor carry out all cleaning and sealing applications. Both water-based impregnating sub-surface and water based acrylic protective coating sealers are compatible with Terrazzo tiles. Selecting the appropriate sealer and sealing method depends on the expected conditions the application will be exposed to as well as the maintenance regime that will be implemented.

During the initial cleaning & sealing process, using specialized polishing pads the finished surface can be further enhanced by removing any fine scratches that may have occurred during the construction period.