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# A-Z OF TILING

Every week as part of our “Stay Positive, Back Stronger” campaign we will be providing you with our A-Z of Tiling Terms. Get in-depth description of many of the common tiling terms, plus some expert insight or top tips from our team.

## M MAINTENANCE

Maintenance is essential for aesthetic reasons: there is no point in installing tiles if their appearance is allowed to deteriorate. More importantly, tiling should be maintained for health and safety reasons. Cracked, broken or missing tiles represent a trip hazard and should be avoided. The essential first step in successful tile maintenance is to fix them properly in the first place. Trying to cut corners in fixing by using poor quality materials is a false economy, as any minor saving on materials costs can be more than outweighed by the cost of subsequent remedial work.

## BAL INSIGHT

Amongst the many advantages of ceramic and porcelain tiles, they are easy to maintain or replace locally “as new” condition.
Cleaning and maintenance of tiles is also important. Tiles can be easily maintained in a clean and hygienic condition using the correct cleaning agents and methods and the tiles are then dry.

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# MARBLE

A quarried natural stone, commercially available in a broad range of colours. True marble is a metamorphic rock comprising mostly calcite, a crystalline form of calcium carbonate ($CaCO_3$). Marble's distinctive shine is not natural,but derives from the polishing process it undergoes. Quarried marble is usually sold in tiles of 20 mm thickness or less, in various sizes, with a range of finishes including polished, honed, split-faced and acid washed.. Carrara, Crema Marfil, Botticino are types of marble, although the term is also used loosely to describe any calcium carbonate stone capable of being polished.

## BAL INSIGHT

Green marble, considered separately from true marble, contain the dark green mineral Serpentine and asbestiforms. Care should be taken to avoid contact with naturally occurring asbestiforms. Verde Alpi is one type of green marble which is susceptible to thermal changes and can undergo rapid moisture absorption and expansion which can cause warping or curling of the stone. For this reason this type of marble in flooring is often used purely as a decorative inset, rather than the field stone. Reaction resin tile adhesives may be used to install Green marble e.g. type R to BS EN 12004.

# MICROPOROSITY

Extremely fine porosity, typically visible only at 50x magnification or greater through a microscope.

## BAL INSIGHT

Before application of coloured grouts, the surface porosity of a ceramic, porcelain or natural stone and any associated potential risk of staining has to be considered. That is why BAL, in line with industry best practice advise that a small trial area of grouting is first carried out in an inconspicuous area. This is in order to test for the potential risk of tile staining i.e. by retaining fine coloured particles within micropores on the surface of the tile (See also coloured grout).

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# M

## MITREING

Cutting a tile at an angle other than at 90°, normally to fit an edge or corner.

## BAL INSIGHT

Although a relatively simple process using an electric cutter or grinder for straight lines, mitreing unusual shapes such as L-shaped or other cutouts may require the use of a hand file for finishing.

# M

## MODULAR TILE

Tiles are manufactured in modular sizes, meaning that their dimensions are always multiples of the same index dimension ,e.g. 50 mm.

## BAL INSIGHT

Typically found on floors, the set out and installation of modular tiles can be more time consuming. Using primers such as BAL Prime APD on porous substrates and cement-based adhesives with elongated “open times” will help make those minor adjustments which are often required on more complex installs such as these.

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# M MOVEMENT

Movement can arise through changes in temperature or humidity, changes in moisture content and deflection or deformation (i.e.dead load and traffic load) which will impact upon any tiling installation. Any movement could lead to tiles lifting or bulging, debonding of tiles or cracking of tiles and grout joints.

## BAL INSIGHT

The potential for movement will be different in every case and should be evaluated at the project planning stage with the appropriate precautionary measures incorporated into the tiling design.

# M MOVEMENT JOINT

A movement joint is the interruption of the surface to allow for the accommodation of movement.

## BAL INSIGHT

The frequency of movement joints required will depend upon factors such as the overall area of tiling, changes in environment i.e. internal and external areas and heated floors, changes in substrate etc. Therefore, the success of any tiling installation will depend upon selection of the correct type of movement joint placed at the correct frequency in the right situation.

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# MESH BACKED STONE

Some naturals stone tiles are supplied with a resin mesh backing. Typically the resins commonly used for this are epoxide, polyurethane or polyester of which polyester is the most commonly used. A fibre mesh is often embedded within the resin coating i.e. a fibreglass mesh.
The reasons for this vary from providing additional strength to the stone, particularly in the case of thin marble, limestone or granite, or sometimes it may be designed as a 'temporary' backing.

## BAL INSIGHT

When installing mesh reinforced resin backed stone tiles, the bond strength achieved is totally dependent upon the quality and consistency of the resin/ mesh backing applied to the stone. This applies to both the internal dry, wet duty and external conditions. BS 8000: Part 11 Workmanship on building sites Part 11: Internal and external wall and floor tiling – Ceramic and agglomerated stone tiles, natural stone and terrazzo tiles and slabs, and mosaics – Code of Practice recommends that: "With large tiles and slabs any reinforcing mesh should be well adhered to the underside, and the mesh and adhesive should not obscure more than 25% of the underside of the tile or slab unless they are mechanically fixed".
Always check the suitability of the natural stone for its intended purpose.

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# MOISTURE EXPANSION

The increase in dimension or volume of materials e.g. ceramic tile due to changes in prevailing moisture conditions (water or water vapour). This expansion or contraction may occur within some materials over a prolonged period, but will happen more quickly if the tile is exposed to water or water vapour at greater than normal temperatures/higher humidity and pressures.

## BAL INSIGHT

Moisture expansion is common in porous materials which are capable of absorbing moisture from the atmosphere such as wood-based boards. Conversely some porous materials contract (i.e. shrink)
as they dry out. Where these changes are large, any ceramic tile finish bonded to these backgrounds will be subjected to stress which can cause potential cracking or debonding of tiles and grout. The use of moisture and thermally stable materials such as tile backing boards or the use of an uncoupling matting for floors can help to reduce the effects of moisture movement.

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# MOSAIC & MOSAIC TESSERAE

**Mosaic**

The art of creating an abstract or pictorial image on a wall, floor or other surface using small pieces of ceramic or porcelain tile, natural stone, coloured glass or other materials, including metals.

**Mosaic Tesserae**

A collection of ceramic (inc. porcelain), natural stone or glass tile of less than 49 $cm^2$ in area, whether square, octagonal, hexagonal or a random shape. Used to form a design, pattern or picture, they may be pre-mounted on a backing for ease of installation.

## BAL INSIGHT

The code of practice for tiling advise that for mesh backed mosaics, the reinforcing mesh does not obscure more than 25% of the underside of the mosaic. It is also important that the mesh and the mesh glue does not deteriorate whilst in service.