

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.

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EFFLORESCENCE

Whitish residue deposited on the surface of bricks, tiles, mortars or grouts caused by the crystallisation of soluble salts.

BAL INSIGHT

This is a phenomenon which affects the whole of the building industry. In ceramic tile installations, efflorescence takes the form of a whitish deposit which often manifests itself on the surface of the grout lines, most frequently in flooring applications. Visually this will often take the form of a surface stain discolouring the pigmented floor grout during the setting or drying out period, creating light and dark ‘patchy joints’.

Proprietary cleaners are available for the removal of efflorescence, usually acidic based in the case of grout joints between ceramic tiles or specialist cleaners for grout joints between acid sensitive natural stone.

E ELASTOMERIC

Capable of returning to its original state after deformation. An elastomeric adhesive will deform under stress, then return to its starting condition.

BAL INSIGHT

Use of Rubber Crumb and polymer technology makes it possible to create an elastomeric tile adhesive. This means that the adhesive will offer much greater protection to the tiled finish and will hence offer greater resistance to non-deflection movement in general i.e. the tile adhesive behaves like an anti-fracture underlayment beneath the tiles. This is an advantage when tiling, for example to timberfloors, providing the floor is rigid and free from excessive deflection.

E EXTRUDED (CERAMIC TILE)

A clay mixture is forced through a suitably shaped die. This creates a continuous ribbon of formed clay of uniform width, which is then cut by wire into appropriate lengths of tile.

BAL INSIGHT

Extruded tiles are classified with the letter A in BS EN 14411. For example, a dry pressed tile is designated Class B. A dry-pressed porcelain tile is classified by Group A1a and has a water absorption of <0.5%.

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ENCAUSTIC TILES

Usually taken to mean porous ceramic tiles which have been decorated with inlaid coloured clays before being fired, but also used to describe a number of single-coloured tiles laid to form a pattern.

BAL INSIGHT

The word encaustic is derived from the Greek for ‘burned in’ Known originally as inlaid tiles, these tile types become popular in the 13th century particularly for use in Medieval churches and Abbeys and had a revival in popularity during the Victorian era.

Herbert Minton in Stoke-on-Trent refined the tile making process and developed new production techniques for production during the 1840’s.

Buildings which retain encaustic tile finishes today include the US Capitol Building in Washington DC, as well as the Palace of Westminster and the Victoria and Albert Museum in London

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EPOXY RESIN

A polymerised synthetic resin composed of epoxide used in conjunction with a curing agent (hardener) to form a reaction resin tile adhesive or chemical-resistant grout.

BAL INSIGHT

Epoxide based grouts are known for their high strength and durability as well as enhanced chemical resistance. Epoxy based grouts are also easier to maintain in a hygienic and sterile condition by regular disinfectant measures making them ideal for use in hygiene critical areas.

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ETTRINGITE

A natural mineral (hydrated calcium aluminium sulphate hydroxide) found in hydrated Portland cement system as a result of the reaction of calcium aluminate with calcium sulfate, both present in Portland cement.

BAL INSIGHT

Uncontrolled ettringite formation can be detrimental to cement based mortars due to its expansile nature and can lead to 'sulphate attack'.

This is why it is important to ensure that Calcium Sulfate screeds are allowed to dry to a moisture level of less than 75% RH (Relative humidity) as measured using the Hygrometer method, or less than 0.5% (moisture content by wet weight).

Correct priming is essential before installing tiles directly to calcium Sulfate based screeds using cementitious based tile adhesives.

It is possible to install tiles using a suitable uncoupling membrane where the moisture content is higher than stated above. However, always refer to the manufacturer of the uncoupling matting for further advice.

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EXTERIORS

Exterior areas should be regarded as requiring tiles, adhesives, grouts and sealants suitable for total immersion.

BAL INSIGHT

External environments are the harshest in which to install tiles. Factors such as freeze thaw expansion and contraction, thermal expansion and contraction, moisture expansion etc all can have a cumulative effect. It is therefore essential to select the correct materials for the intended applications, ensuring tiles are solidly bedded onto suitable substrates with DPM's installed (ground bearing concrete). For floors, suitable falls are required to ensure water is taken away from buildings and, ideally taken into suitable drainage outlets. Where recommended in BS 5358 Part 2 for external wall tiling mechanically fixed above storey heights. Movement joints should be installed as per British Standards BS 5385 recommendation.