

Grouting

A range of coloured grouts is available for both walls and floors and it is therefore important that the correct material is chosen. In general it is the tiles that are selected for colour and pattern though the colour and joint width of the grout can have a significant effect on the overall appearance. Where possible a trial area should be viewed using the tile grout combination chosen. The following guidelines are general to nearly all tiles though special consideration should be made when tiling natural tiles such as terracotta and marble or specialised tiles such as mosaics as well as to special grouts such as epoxy systems.

Preparation

The grouting process will result in some pressure being applied to the tiles already affixed and it is therefore important that the adhesive is left sufficiently long before the grouting operation commences. This can range from 2 hours for a fast set application, to in excess of 24-48 hours for a paste adhesive application. If the grouting is undertaken too soon the pressures applied can cause the bond between tile and adhesive to break. Once broken the bond will never be reformed. For fixing guidelines see the relevant section.

The joints to be grouted should be clean and free from adhesive, dust or dirt. As a general rule of thumb the grout depth should be twice the desired grout width. Where white grout is to be used it is often considered that the use of a white adhesive will result in less grout and a neater job. Unless the material is a fix and grout system, this should not be done. A thinner layer of grout will be less stable and may result in the need to regrout at an early age.


Application

Grouts should be mixed to a thick, smooth consistency. Excess water should be avoided as this will give rise to increase risk of cracks forming in the joints and will produce a weaker mix that will be less permeable and less durable. If the grout is mixed too dry it will be hard to apply and may result in an unsightly finish. Suggested mix proportions should be given on the grout packaging. The use of a mechanical stirrer for at least five minutes will help in obtaining a suitably useable mix.


Grout should be thoroughly worked into the tile joints with a grouting trowel or rubber faced float until the joints are completely filled to the face of the tile. Surplus grout should be removed from the tile face with a rubber squeegee. When the joint is finger hard, i.e. stiff enough to withstand the pressure of a finger, the joints can then be pointed by compressing the joint with a rounded piece of wood or pointing trowel or other suitable material.

Before grouting highly glazed tiles a small test area should be sampled to ensure that the glaze is resistant to scratching.


If **Flexibond** is mixed in with the grout, at a suggested 1 to 5 or 6 ratio with water, any surplus should be cleaned off the tile surface immediately with a sponge and clean water. This mix should not be allowed to dry on the surface of the tile or it will be difficult to clean off.




Metal should not be used to point grout joints as the abrasive nature of the grout may cause a residue of the metal to be left as an unsightly mark on the surface.



If the grout is finished off too early while still wet, or a smooth tool is used to finish the joint, the laitance, or fines, within the material will be brought to the surface. These will dry with a characteristic white colour which may then be unsightly.



With coloured grout there is a potential risk of staining to the tiles. A small area should be trialled to ensure that the tile and grout are compatible. If staining is likely the tiles should be sealed with a surface sealer prior to the application of the grout. This is particularly the case with softer tiles such as terracotta.




Grout should not be applied when the material, substrate or ambient temperature is below 5°C. If it is there is an increased risk of discolouration during its early life.

Grouting Terracotta Tiles

Terracotta Tiles are naturally soft absorbent tiles, and following the same procedures as with ceramic tiles are likely to result in a poor job.

Even the introduction of a correctly mixed cementitious grout to terracotta could result in the moisture being drawn quickly from the grout into the tile, with loss of workability resulting in increased difficulty of application. This can lead first to an unsightly joint as the grout is difficult to finish smoothly, and secondly in a weakening of the joint where the water required for hydration of the cement has been sucked into the tile. If additional water is added to the mix to counteract this effect, the mix is often too wet to completely fill the joints and the 'slurry' can spill onto the surface of the tile from which it can be very difficult to remove without ruining the look of the system.

After fixing, Terracotta tiles should be sealed both over the surface of the tile and down the edges of the tile with two coats of boiled linseed oil, or equivalent material, to partly seal the surface. This will prevent excessive absorption of the grout into the tile and will enable easier cleaning of excess grout from the surface. Once completed a further coat is often applied to give additional protection to both the tile and the grout surface.



Ceramic tiles are often used to mimic terracotta in appearance. In comparison these have much lower absorption. This should be remembered when finishing the grout as finishing at the same time after application will result in the grout being wetter with the resultant effect of the laitance, or fines, being brought to the surface where they will dry with a characteristic white colour.

Grouting Mosaics

Mosaics are usually used to give a different appearance to larger format tiles. Because of their small size, attempts to grout them in the normal manner can prove onerous and is often therefore not undertaken as precisely as required. However, mosaics should be grouted in the same manner as larger format tiles. With paper faced mosaics a different fixing method needs to be followed. The mosaics are, as described, attached to a paper sheet for ease of storage etc. To grout these tiles, the grouting is undertaken prior to fixing, from the rear of the tile. A full grout joint is applied from the rear and the back of the tile cleaned thoroughly.

The paper adhered sheet of mosaics is then affixed as normal ensuring a full bed of adhesive is used.

Once set the paper face can then be removed, the tiles cleaned up and full grout joints are ensured.

Epoxy grouts

Grouting with epoxy grouts is similar in practice to the use of a normal cementitious grout, but owing to the nature of the material more care is required to ensure a good job.

Grouting

Speed-E-Poxy is a two part epoxy grout and as such it must be ensured that the whole of part A is mixed with the whole of part B. If the two parts are not mixed completely together the grout will not set completely and will remain soft to the touch.

The hardened properties of the material will be significantly reduced. Once the grout has been mixed there is a working life of approximately 30 minutes and the material must be used within this time. A mechanical stirrer should be used to obtain the correct consistency of mix.

Speed-E-Poxy should be applied using the equipment supplied with the material and be thoroughly worked into the tile joints. Foam rubber sponges are not compatible with **Speed-E-Poxy** and should not be used. Surplus grout should be removed from the tile face immediately.

If epoxy grout is left to harden on the tile face it is virtually impossible to remove without causing damage to the tile face. To achieve a good finish it is sensible to apply epoxy grout in a chequer board fashion such that alternate squares are filled and fresh material is then applied against set material. If fresh material is applied against un-set material, smearing can take place leading to an unsightly surface effect.



Grout should not be applied when the material, substrate or ambient temperature is below 5°C. Doing so will significantly retard the setting time of the grout. At temperatures in excess of 30°C it is likely that setting times will be accelerated to such a level that the material becomes impossible to use.



If slight spillage does occur and the material is not removed immediately, small areas may be removed through the application of a paint stripper containing Di-Chloromethane as the active ingredient. However, it should be noted that this chemical may cause damage to surrounding materials and should be used sparingly.