

MANDARIN STONE

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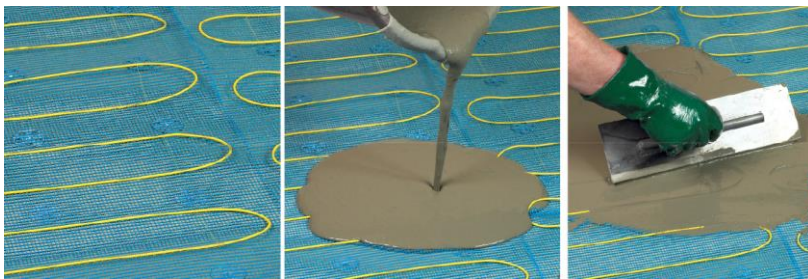
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HOW TO TILE TO FLOORS WITH UNDERTILE HEATING MAT

PREPARATION

Substrates for use with undertile heating should be suitably rigid and free from movement, the more solid the better. Use of a suitable tile backer board such as Norcros Pro Board or solid concrete is preferable. If using a backer board it should be fixed in accordance with the manufacturer's recommendations to provide a clean, dry, rigid substrate suitable for the conditions to which it will be subjected.

When the substrate has been prepared so as to be clean, dry and rigid, the undertile heating cables should be fixed as per manufacturers recommendations and then bedded into a layer of Norcros Pro 30 Fibre Levelling Compound and allowed to dry.



Once the levelling compound has cured, Schlüter-DITRA matting should be applied using a contact layer of Rapid Set Flex SI Adhesive.

Once this has been done, tiles can be fixed with a suitable adhesive to a maximum bed thickness of 10mm.

SETTING OUT

The general rule is to work from the centre outwards. Measure the width and length of the room and draw a cross in the centre. From this central cross lay out the dry tiles with a suitable width of grout gap (minimum 3mm) to allow for movement stresses between the tiles during use if the floor. If laying a mix of sizes such as an opus pattern, the grout gap will vary and the degree of variation can be ascertained before fixing begins. If laying an uncalibrated material, the thickest tile should be found and be the first to be fixed as this will set the level of the floor, with all other tiles being bedded up. Make sure there are no awkward cuts, some adjustment may be required. Always be aware of how the floor will look when you enter the room, and put aside any tiles which you do not want in the centre of the floor for use in cuts around the edge of the room.

To counteract movement stresses, which can result in tiles cracking and/or de-bonding, a perimeter movement joint should be provided around the edge of the room. This should consist of a gap a minimum of 6mm wide and the depth of the tile should be left at the junction of walls and floor. This should be filled with a suitable flexible seal, such as silicone, in order to accommodate any movement, or if being covered with skirting, kitchen units etc. may be left open. In larger floor areas, intermediate movement joints may be required at suitable intervals in both directions.

FIXING

Fix the tiles in a suitable highly polymer modified flexible adhesive, such as Norcros Standard Set Flex SI Adhesive, Norcros Rapid Set Flex SI Adhesive or Norcros Thick Bed Flex Floor Adhesive (NB. If fixing an uncalibrated material, a Thick Bed Adhesive must be used). If using Schlüter-DITRA matting then the adhesive bed on top of the matting should not exceed 10mm thick. The colour of Adhesive to be used is dependant on the stone colour and the grout to be used i.e. if fixing a pale coloured Limestone with Alabaster grout, then a white adhesive should be used to prevent any shadowing through the stone and grout from the adhesive below. Mix the adhesive as per the instructions by adding the powder to clean water and stir until a smooth, lump free consistency is obtained. Mix only enough adhesive which can be used within the pot life of the product (approx. 30 minutes at 20°C).



Using a suitable, solid-bed notched floor trowel held at a 45° angle, spread the adhesive onto the floor to form parallel ribs into which the tiles should be pushed with a firm twisting action, this will collapse the ribs of adhesive and produce a 3-4mm solid bed of adhesive beneath the tiles. Work in small areas and discard any adhesive that begins to dry or 'skin over'. Tiles with deeply keyed back profiles, such as some Travertine (due to voids present), Porcelain and also some large format tiles, may require the back of the tile to be 'battered' with adhesive. Every so often, lift a tile to ensure that it is in full contact with the adhesive and that no voids are left in the adhesive bed. Any adhesive residue on the surface of the tiles should be wiped off with a damp sponge before the adhesive sets. If this is not done it can prove tricky to remove dried on residue. Remove deposits of adhesive which may build up in the gaps between the tiles. **DO NOT WALK ON THE TILES UNTIL THE ADHESIVE HAS SET**, this is generally 3 hours approx for rapid setting adhesives or 24 hours approx for standard set adhesives.

CUTTING TILES

Stone and Porcelain tiles can be difficult to cut and good quality tools are required. An electric wet cutter or in some cases an angle grinder, fitted with a diamond tipped masonry blade should be used to make cuts to tiles. For some intricate cuts it may be necessary to use a cardboard template in order to achieve more accurate results.

SEALING & CLEANING

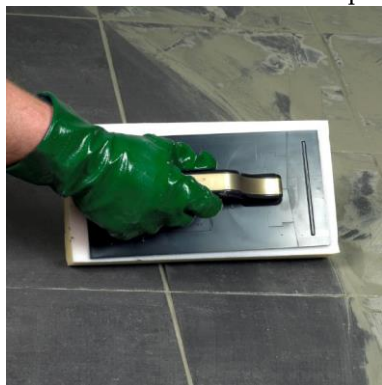
Once the adhesive has dried, but before grouting, the tiles/showertray should be cleaned thoroughly with a dilution of Fila Cleaner Pro and allowed to dry completely before, in the case of stone, having one coat of the initial sealant applied. This may be Fila Fob Xtreme or Fila MP90 Eco Xtreme, dependant on the type and finish of stone being fixed. This initial coat helps to prevent any pigment from the grout bleeding into the tiles, although a small inconspicuous area should always be trialled first to ensure that no staining occurs. Additional coats of sealant can then be applied as directed after the grout has dried. Porcelain and Ceramic tiles do not generally require sealing but intermediate cleaning should still be carried out and the porous grout should be sealed with Fila Fugaproof.

Tiles should be cleaned thoroughly with dilute Fila Cleaner Pro prior to every stage of the installation process (fixing, initial seal, grouting etc.) to ensure that no stage of installation adversely affects any other (i.e. polymers from grout preventing penetration of base sealant, grout residue being sealed onto surface).

GROUTING & FINISHING

Allow the adhesive to dry: The tiles should be grouted with the appropriate colour of either Norcros Flexible Wide Joint Grout or Norcros 4 into 1 Wall & Floor Grout. Clean out any dirt, dust and adhesive from the joints and ensure that they are dry.

Grout should be mixed as per instructions by adding the powder to the water. The grout should be manually mixed to reduce the amount of air incorporated.



The method of grouting will vary slightly depending on the tile type e.g. Unfilled Travertine and some Antique Limestones will need to be slurry grouted by holding a soft rubber grout float at 45° to the tile surface and sweeping the mixed grout diagonally across the tiles, ensuring that the grout is pushed fully into the joints and any surface voids present. Some tiles such as Polished Marble or a majority of Porcelains and Ceramics, should be pointed, concentrating the grout into the joints rather than across the entire surface of the tile, so as to keep any grout residue to a minimum. As grouting progresses, clean off as much grout as possible from the surface of the tile and allow the grout to become touch-dry. Clean off the grout residues with a damp sponge wiped diagonally across the tiles. Allow the tiles to dry and buff the surface with a dry cloth. Any stubborn residues should be cleaned off with a dilution of Fila Cleaner Pro mixed with warm water within 24 hours of grouting.

Where there is requirement for a more flexible joint, such as at junctions of walls, walls & floors or where tiling meets baths or showertrays, a suitable colour of Norcros 4 into 1 Silicone should be used.