

THE FOLLOWING GUIDELINE IS RECOMMENDED BY REVELSTONE, AS THE MANUFACTURERS, AS THE CORRECT WAY TO LAY THEIR CAST STONE PRODUCTS.

It is important to understand that our tiles are cement based and are moulded to simulate the appearance of natural stone where sizes and thicknesses vary. This ensures that all our products resemble as close as possible to natural stone. Follow the procedure outlined below for storing, laying and finishing.

## STORAGE & HANDLING

All Revelstone Tiles must be handled carefully to avoid damaging edges and surface of the product. As the tile ranges from 15 -25 mm in thickness it is not able to take excessive handling and rough treatment, its strength is once it is laid in situ. Tiles should always be stored undercover on their edge not horizontally (stacked) prior to being laid. To make your tiles easier to handle, lean them against a wall and raise them off the ground on old pieces of timber. This helps to prevent any moisture from the ground being absorbed causing a damp mark on the tile. All tiles from Revelstone are manufactured and stored undercover their entire lives before you receive them; this explains the dark sweat mark apparent on the face of the tile when you

It must be understood that as Revelstone does not provide a service of laying pavers, the company cannot be held responsible for any defects which may arise from incorrect laying by contractors or clients. It is important that only approved or recognized installers and contractors are used; do not use installers who are unfamiliar or inexperienced with cast stone products. ALL INSTALLATIONS ARE DONE AT THE USERS OWN RISK.

receive delivery. This occurs due to heat being created between the pavers in storage and will generally go away in time. Tiles do not like excessive and malicious handling so suitable lifting and handling equipment should be used. The correct safety gear and protective clothing must be worn at all times i.e. gloves, dust masks, safety boots etc.

## PREPARATION

When laying the tile on to a new concrete slab allow 28 days for the slab to cure and dry before applying the tiles (slab will shrink and contract excessively in its early form).

Ensure that all concrete surfaces to be tiled are clean and free of all traces of shutter release and curing agents, laitance, natural growths and any other surface contaminants, preferably by acid washing (rinse off well before tiling) or sandblasting.

It is not advisable to lay the tile directly onto existing brick paving or ceramic/ clay tiles as your Revelstone Tile is cement based and expands and contracts at a different rate to

these other products. It is advisable in most circumstances to use Plaskey and Key it/ Permabond or Cemflex bonding liquid so as to create a better adhesion between the tile and the existing surface. Best practice is to brush onto back of the Tile prior to applying adhesive.

## PROCEDURE FOR FIXING OF TILES

Two methods of laying you can use -

### 1 | INTO A SCREED

This is used if a concrete slab is not cast to save costs and tile is laid and bedded into the screed - residential or light usage only.

- Before beginning the tiling process it is vitally important to physically wash off the back of each tile using a steel brush and water removing all loose dust etc.
- Best practice is to apply Plaskey Key It or similar to back of the Tile prior to sticking down - this ensures good adhesion between tile and screed.
- Throw a 40 - 75mm semi-dry cement screed

How to lay  
Revelstone  
Indoor &  
Outdoor Tiles.

(5 sand to 1 cement) and compact it well, ensure you take into account the levels or "fall" etc. required. You should allow a slope of 4-5 cm every 3 metres (1:50) approx. away from the house or building.

- Begin tiling in one corner, lay your tiles and design loose before fixing, avoid walking on the tiles as they will crack and break whilst being loose.
- Before you fix the tile it is necessary to "humor" the tile.
- This means making all the height and size adjustments required when laying a simulated stone tile - the sizes vary in thickness and size due to their individuality.
- A cement slurry (cement/ water) should then be used under each tile
- This requires lifting each tile pouring the slurry on the screed and bedding tile using a twisting action to ensure full contact between the screed, slurry and tiles.
- Use a spirit level and a straight edge to ensure levels and "fall" are being maintained whilst fixing.
- Tiles should then be tapped gently using a rubber mallet. It is sound practice to remove the occasional tile to ensure that good contact has been achieved.

- Clean off surplus cement on the face continuously using a sponge and water before it dries and stains the surface.
- See Grouting below for details.

## 2 | USING TILE ADHESIVE

- Adhesive is the best way to lay the tile but can be expensive due to the unevenness of the tile.
- You will require approx. 1 bag of adhesive for every 1½ m².
- Never tile in hot conditions, this may cause problems when fixing the tile. If it is too hot the adhesive dries too quickly and does not bond with the under surface of the tile - this will result in excessive movement between the tile and the grout with the grout pulling away slightly from the edge of the tile. This also causes the tile when knocked to sound as if it is hollow.
- Before beginning the tiling process it is vitally important to physically wash off the back of each tile using a steel brush and wet sponge removing all loose dust etc.
- This process is very important as the back of the tile has laitance that MUST be removed or the tile will not stick.
- This will ensure a good bond between the product and the adhesive – do not use cheap adhesive – 6 hour Quickset/ Tylon Ultraflex is required especially on larger format sizes.
- Best practice is to apply Plaskey Key It with adhesive to back of the Tile prior to sticking down - this ensures good adhesion between tile and screed.
- Begin tiling in one corner, lay your tiles loose before fixing in order to marry the sizes, avoid walking on the tiles now as they will crack and break whilst being loose - especially the corners.
- This may require lifting and swopping of tiles to achieve a regular grout gap of 10 - 25mm approximately.
- Use an angle grinder with all the necessary safety equipment to cut the tiles.
- When using adhesive it is imperative that there is a solid bed of adhesive beneath each tile – we do not recommend 5 spot methods.
- It is also essential to butter the back of the tile, bedding it firmly into the wet adhesive using a twisting action and a rubber mallet (tap gently) to ensure sufficient contact between concrete base, adhesive and tile.
- It is sound practice to remove the occasional tile to ensure that good contact has been achieved.

- Be aware that occasionally after laying is completed, some tiles may sound hollow; this is due to the tile not being completely buttered with the adhesive but should not affect the integrity or strength. Ask the Tiler to confirm or contact the supplier of the tile adhesive.
- All levelling is to be done from the top of the tile not the base due to the individuality of each tile - size and thickness vary according to the original stone it was copied from. Use a spirit level and a straight edge to ensure levels and "fall" are being maintained whilst fixing.
- Never butt joint tiles (less than 10mm) - joints are required to allow the individual tiles to move with respect to each and thus avoid compressive stress build up.
- Do not tile over structural, expansion or cold joints in the background. These joints must be extended through the various layers to the surface.
- When tiling onto a concrete deck with a Waterproof Membrane (torched) do the following:
  - **Residential:** Cover first with PVC black plastic (250 micron minimum) cut to cover membrane – this is a separation layer to protect the membrane from damage. Then

cast a 50mm screed (floating screed) on top and follow the tiling procedure above.

- **Commercial:** It is advisable to use bitumen polyester like Interdek as a separation layer to protect the membrane from damage in commercial or high traffic/usage areas. You then cast a 50mm screed (floating screed) on top of the Membrane and follow the tiling procedure above.
- It is important to ensure sufficient drainage so make sure falls etc. are correct, or water will pool below the tiles on top of the membrane. This water will then continually migrate through the screed and tiles by natural osmosis - thus causing efflorescence, negative aggregate transparency, dark colour patches and the tile will never dry out completely.
- Seek professional advice in large commercial situations on a specification - this is a guideline.

## GROUTING OF TILES

- Grouting must not be carried out until the adhesion process has had sufficient time to take place and the tiles have settled. This may take 1 - 2 days depending on the weather conditions after completion.

- Remain off the tiled area - walking on to soon will cause movement, cracked grout, hollow tiles and poor adhesion.
- Tiled area may then be pointed or grouted.
- This is easily done using a semi dry mortar mix of 3 parts building sand to 1 cement, fed into the gap and troweled or sponged to desired effect.
- It can either be smoothed over by sponge or pointed - using tool or rounded piece of wood.
- It is vital to clean the tiles off with clean water whilst grouting - changing the water and sponges regularly. This will determine the outcome of your tiled area, whether it is dull and has a grey film of cement left behind on the surface or not.

## CLEANING OF TILES

- As mentioned already it is vital to keep the tiles free of adhesives using a sponge and water whilst laying and especially when grouting.
- Should the product be soiled or stained use Nanoprufe Tile and Surface Cleaner (synthetic acid) to remove grout and cement stains. This is however done at your risk and must be supervised by the contractor or installer responsible.

- Doing small areas of less than 1m<sup>2</sup> at a time with a medium to soft plastic bristle brush, rinsing off heavily with water/ soap solution to dilute so as not to damage the pavers.
- A synthetic acid alternative - Nanoprufe Tile and Surface Cleaner - is recommended and is available from us.
- This will clean off most adhering cement, grouting and efflorescence marks appearing on the newly laid product.
- As it is a cement product it requires time after being laid to dry out to its original colour etc. Often the tile has a wet patch in the middle after being laid; this is because the tile dries from the outside in. This marking will disappear depending on how much moisture etc. has been trapped under the tile and how long this takes to move out through natural osmosis. Prevailing ground conditions play a huge part in this regard i.e. clay is the worst.
- Details of local contractors are supplied to enquirers on the express understanding that Revelstone implies no recommendation whatsoever as to the standards of performance, reliability etc. of that company or person and accepts no responsibilities for any aspect of any contract or arrangement made between company or person and customer.

- Should you require your tiles to be professionally cleaned and sealed we will gladly recommend - please enquire from a member of our sales staff.
- For Sealing of Tiles see separate instructions - indoor and outdoor details.

**PLEASE NOTE:** For heavy commercial conditions: Extra consideration must be given in terms of the sub base, strength and thickness of concrete slab, grouting, long term usage, expansion joints, drainage and expected loads which tiles will be expected to carry. Architect/ Engineer to provide specification based on their expertise where necessary.