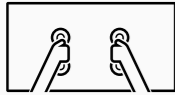




# Installation guidelines

## 1. Handling



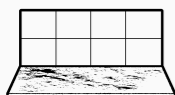
- To prevent breakage, we recommended to keep all Large Format Tiles in their original packaging during handling.
- Tiles measuring 60x120 cm or less can be handled by hand.
- To handle Large Format Tiles, we recommend to use lifting tools with a sufficient load capacity.
- The use of forklift is recommended; however, it has to be equipped with following forklift details:
  - minimum length of 1.2 m if the crates are handled resting on the long side
  - minimum length of 2.1 m if the crates are handled resting on the short side
- It is recommended that you handle the A Frame individually.

## 2. Cutting



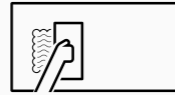
- When cutting Large Format Tiles, we recommend to use professional dry cutters. Using other tools may lead to uneven cuts or breakage of the material. It is recommended to check the cutter blade before any cut. A damaged blade increases the risk of damaging.

## 3. Background



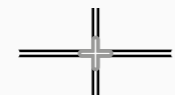
- Prepare a screed with a perfectly flat, dry, compact, dust-free surface, with no cracks or other visible damage. The ideal height difference should be no more than 3 mm, measured using a 2 m spirit level
- In case of slightly cracked or non-solid screed, it is recommended to use as crack preventing mat between substrate & slab. Screed should have suitable hardness and mechanical resistance to stresses due to the final uses. It should be prepared using perimeter bands & all structural expansion joints as necessary.
- It should be according to BS 8204-1-2003 or DIN 18560 standards.

## 4. Laying with adhesives



- We recommend laying with this technique, which should be carried out by suitably qualified workers with appropriate equipment.
- While choosing the adhesive, we recommend you to bear in mind the following: type of Large Format Tiles (group to which they belong and size), type of surface to be tiled and intended use of room.
- Adhesive should be applied on the floor as well as on backside of tiles with 3-4 mm thickness.
- To make corrections, we recommend you to check the material before the adhesive dries
- Adhesive will vary depend on the surface so follow manufacturer recommendation. Cementitious Adhesive (C2 Category - C2TES1) is recommended.
- Apply the adhesive onto the back of the slab with a 3mm trowel and should be well distributed on corners & edges.
- It must be spread over in one direction only. Ideally it should be spread towards shortest direction of the tile.
- Spread the adhesive for one tile (pc) onto the floor substrate using a 15mm U-notch or a 10mm V-notch trowel and following the same direction as previously applied to the back of the slab. Adhesive should have 100% contact with tiles/substrate to avoid hollow sounding.
- It is recommended to start from the centre of the slabs and then move towards the edges.
- Tap the slab with a rubber mallet for a complete fixing ensuring the air is expelled.
- It is recommended to handle slabs with appropriate equipment.

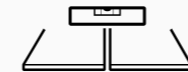
## 5. Joints



- Deciding where to position the joints is also a part of the work which should be entrusted to qualified workers.
- The joints must be positioned:
  - on structural connections (structural joints)
  - between the wall and the floor (perimeter joints)
  - between one tile and another (laying joints or gaps)
  - between tiles and other materials (e.g. pairings between ceramic, linoleum, or wood).

- A 2 mm joint spacer is suggested for all sizes.
- For Large Format Tiles, a 2 mm joint is strongly recommended, as well as proper positioning of spacers on floor sides.
- With help of 2 mm spacer & thanks to a 0.8 caliber (meaning that a 120x240 cm minimal size actually measures 119.8x239.8 cm), different sized tiles can be used within a single floor pattern, while still achieving perfect laying.

## 6. Use of tile leveling system during the installation



- For optimum surface performances, it is strongly recommended to use a tile leveling system.
- This solution also acts as a spacer for joints, thus contributing to make the installation more accurate.

## 7. Grouting



- We recommend you to use grout with the same colour as the product.
- We recommend you to wait for the adhesive to dry completely before grouting the joints.
- We also advise you to ensure there is no adhesive or dust in the joints.
- Apply the grout using rubber trowel.
- Both cement & epoxy grout can be used. It is not recommended to use grouting with coloured pigments in contrast with colour of tiles.
- We recommend you to grout no more than 4-5 square metres of tiling at a time. This applies in particular when laying textured, non-slip and polished tiles.
- You are advised to remove all excess grout from the tile surface while the grout is still wet, working in diagonal movements. This applies in particular to tiles laid in outdoor areas.
- Use a damp sponge and perfectly clean water to thoroughly clean the entire tiled surface and the joints.
- We then recommend that you dry the surface with a damp cloth.
- Considering how quickly epoxy grouts set, if these are used, we recommend you to clean the excess grout off immediately with a sponge and plenty of water.
- On the day after grouting, you should give the laid tiles a second cleaning with alkaline detergents.

## 8. Cleaning after laying



- Thorough initial cleaning is essential to ensure the tiles a long-lasting appearance over time. It should not be carried out until at least 4 to 5 days after

- laying and grouting but no later than 10 days afterwards.
- For washing, we advise you to use an acid-based product, diluted according to the instructions provided by the manufacturer. However, we advise against the use of products containing hydrofluoric acid or derivatives thereof.
- It is a good idea to use a piece of unlaid tile, or a hidden part of the laid tiles, to check the resistance of the ceramic surface to the acid. This applies in particular when laying honed or polished tiles.
- When you start washing, it is worthwhile soaking the tiled surface first of all, focusing in particular on the joints. The acid solution must be left to work for no more than two minutes and must never be left to dry.
- To remove the acid solution, one of the following methods should be used: single-brush machine equipped with a non-abrasive disc, a wet vacuum, or washing by hand. After removing the solution, we recommend you rinse the tiled surface thoroughly.
- In the event that machines are used, we suggest that you finish off the job by hand in the harder to reach spots, such as the corners of the walls.

## 9. Ordinary cleaning and care of surfaces



- For ordinary cleaning, simply wash with warm water and cloths and/or soft sponges. If necessary, neutral detergents can also be used. If you have non-neutral detergents, remember to test their effects on a piece of an unlaid tile or on a hidden part of the tiled surface.
- Abrasive cleaners should not be used on glossy and/or polished tiles; this kind of detergent can be used on tiles with matt surfaces though; In the event, you should still test the effects on a piece of an unlaid tile or on a hidden part of the tiled surface.
- We also advise against the use of soaps, waxes, or rinse aids.
- To remove traces of grease or oil on the surfaces, we suggest you use detergents with organic or alkaline solvents (pH > 9), rinsing properly at the end.
- In large areas, appropriate industrial washer-dryers can be used, taking care to finish off drying by hand where necessary.
- Abrasive tools (such as metal pads or rigid brushes) should not be used on tiled surfaces.
- After Installation of the floor, it should be properly covered with suitable material in order to prevent tiles from damage or scratches because of on-site processing. It is also important not to drag heavy objects across the surface to avoid scratches.