

# CHALLENGES OF THE LARGE FORMAT

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The most important guidelines regarding installation of this type of tiles are listed below: which products are suitable, how to cut the tiles and what to do to make the results of the work satisfying.

## SIZE MATTERS,

that is the reason why a local vision on the construction site is crucial when it comes to estimation of works costs. In case of large and extra large tiles it is essential to arrange a meeting with the investor and assess condition of the workplace. Valuation, let alone the acceptance of the job should not be solved by the phone or e-mail. It is necessary to get familiar

with the conditions of a workplace, including free space for mixing all the materials (adhesive mixing, placement of working table), cutting the tiles, fixing the cladding, manoeuvring with the tile and substrate preparation. All of above should be established before execution of the job (Picture 1.)

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While assessing the potential area of installation of tiles it is worth to check the vertical and horizontal surfaces with 2m patch in any possible planes and check if its completely even. Any irregularities would have negative impact on the quality of executed job, it can cause deformation or damage od applied slabs. In case of large deflection (deflection of floor surface should not exceed 3 mm on each 2 m of surface and 5 mm on whole room length) it is more safe to abandon the idea of using large tiles. Another option is to carry out additional surface preparation. Evaluation of surface condition is also important step before further works. Carriage of the tiles is also very important step. Large-sized ceramic cladding needs special care during transport. Proper carriage and storage is essential and necessary in order to keep the tiles undamaged.

For safety reasons, large-sized tiles are usually transported in big boxes and loaded with use of forklift and on L-shaped stands – the same as for carriage of glass. While establishing the price of work it should be considered where the tiles are going to be placed and how to carry it, for example on the 4th floor. Carrying of single tiles is not only time-consuming, it can also cause damage of the cladding. That`s why this is worth to consider using lift which will put cladding on significant heights. Caution! While storing large/extra-large tiles this is crucial to support it on whole surface.

## PREPARATION OF THE TILES,

should be preceded by a detailed check of its condition. This check should be carried out at the moment of delivery of the tiles, before putting it on higher floors. Check must include condition of the tile – if there are visible scratches, dulling,

and especially visible damage of edges of tile which can cause cracks during tile carriage what increases costs.

Picture 2. The frames with suction are used for safe transport of large tiles. They are improving its rigidity, facilitating placing tile in proper position during adhering. System for carrying large tiles - Easy Move.



## PREPARATION FOR AN INSTALLATION IS A MULTI-STEP PROCESS:

1

Remove the cladding from multipack and put on the working table. Once again check the condition of surface and edges, if there are any mechanical damage (Picture 3).

2

It is very important that the table has even top surface and the tile lays completely on a table. The top surface of the table should be checked in the same manner as the floor and if needed, the height of the table should be adjusted. The table should be narrower than the tile approx. 10 cm from each side – this will facilitate cutting the tile.

Picture 3. Before installation of the cladding it is crucial to check the condition of the tiles – check visible scratches, dullness, visible damage of the edges and remove dust and engobe.



3

Clean the tile with water with sponge or soft cloth, remove dust – in particular engobe – this is the special layer of material (which looks like a flour) applied on internal side of tile to protect it against sticking to the rollers of furnace. Washing off should be carried out with well-squished sponge – to avoid forming the puddles on surface.

4

Apply contact coat of adhesive on wall or floor – apply adhesive with notched trowel. Spread in the way that reflects the pattern on tile. Mix the adhesive according to instructions, follow the requirements concerning mix water. While using large tiles it is recommended to use deformable adhesive of at least C2TE S1 class - ATLAS ULTRA GEOFLEX.

Picture 4. Application of the contact coat of adhesive on tile – apply very thin layer of adhesive, the “coarse” layer. The next step is to spread it over the tile – apply adhesive with notched edge, in parallel to the short edge of tile – 100 % of tile should be covered with adhesive.



5

Apply the contact coat of the adhesive on wall or floor – apply adhesive with a notched trowel. Spread by forming the same pattern as on the tile.

6

Move the tile on a surface and adjust its position with use of wedges (system for levelling the surface), it is necessary to fasten the wedges after levelling the tile (Picture 5.).

7

Check the adhesion of all surface of tile with a patch and after optional corrections the tile should be pressed to the wall by hammering (on a wall) or walking on a tile in order to spread thoroughly the adhesive underneath the tile. Pressing the tile should start from central area towards the edges. While walking on a floor tiles one should stand on a centre of tile, not on its edges. Wash excess of adhesive if present on a tile.

Picture 5. Adjust the position of a tile with the wedges (system for levelling of the surface), it is necessary to fasten the wedges after levelling the tile.



## CUTTING THE HOLES,

can be executed on dry and on wet. In case of large Monolith Tubądzin slabs, the holes should be executed with the same method as for gres tiles – with use of diamond pad saw for cutting holes (on dry or wet).

1

Wash the top side of tile and moisten it in order to improve adhering of the patch. Assembly the cutting patch with the suctions and adjust it to the designed size.

2

Execute so called glasswork cut – with single, firm motion with pressing on the area where it should be cut. The cut should be executed to avoid situation where cutting knife leaves few millimetres left.

3

After cutting remember that the tile after cutting should be moved only by sliding, not carrying. Cut tile must not be carried by holding one of edges.

4

Remove (slide!) the patch and assembly the breaker on one and another side of tile. Use the breaker to obtain initial crush, the process of breaking will be indicated by delicate crash sound and arising small cavity on the cutting line.

5

Put the rollers underneath the tile – if the slab does not break itself, slightly push on external edges of the slab. Grab the tile from two sides with hands or suctions to pick up the slab.

6

After breaking the slab remember not to slide it from rollers but pick up and remove rollers.

Picture 6. Cutting can be executed with hand cutter with guide and suction or clamps. That type of cutter allows for quick and dust-free cutting of the tiles. Any electrical disc cutter or typical angle grinder with diamond disc will be sufficient. If we do not have the cutting patch, works above can be carried out with a levelling patch with suction (for stabilization of the patch). Glass knife can be used as cutter (Picture 6.). Be careful to cut the tile through the whole slab – hold the knife under appropriate angle with uniform tension on whole length, with no breaks in cutting.



## HOW TO CUT THE SHAPES?

1

Drill the holes in an external edges (drilling the holes and execution of radius allows for avoiding gibbosity effect and crushing the tile in a corner).

2

Execute the cuts with angle grinder (following the cut line). It is necessary to use protective goggles and gloves.

3

Cut the edge with disc of 100 grade. Discs for stone are working out for this application.

## GROUTING

should be carried out according to recommendations of building chemistry manufacturer. It is recommended to use grout of high quality, e.g. ATLAS Artis, Epoxy Grout ATLAS or silicone. Grouting of large-sized tiles should be carried out later than for standard tiles with size not greater than 0,25m<sup>2</sup>, water evaporates longer from the bottom of the tile in case of large ones.

Grouting time depends on atmospheric conditions in area of installation, in normal conditions (21°C and RH 55%) grouting can start after 3 days. Grout width should be greater than 5 mm. Jointing without grouts is not recommended.