

Concrete tiles fitting instruction

IMPORTANT

⚠ Concrete panels are not DIY products and need to be stored, unpacked, handled and installed **ONLY** by experienced professionals, in clean gloves (especially if panels were not sealed on production).

⚠ Make sure to provide adequate support for the panels after removing the safety tape. Use extreme caution to avoid the risk of accidents or damaging the panels.

⚠ Before installation, the panels need to acclimatise to the room conditions for at least 48 hours. Allow uniform air access to both sides of each individual panel. We recommend using polystyrene spacers.

⚠ When using water-based adhesives for installation, both the concrete panels and the designated wall/surface should always be primed before installation. Water-based glue application without the use of any primer may bend already installed concrete panels and cause discolouration.

⚠ Exposure of the panels to humidity and weather conditions may damage their structure and cause alterations. (e.g. bending, swelling, breaking, discolouration, etc.). Please carefully follow the storage, maintenance and installation instructions provided.

BEFORE INSTALLATION

Any damage and defects of architectural concrete slabs must be reported prior to installation.

1. Damage resulting from transport must be reported upon receipt from the courier with the report of damages. However, no later than 3 days after delivery of the goods to the email address: info@3dartfactory.co.uk.

2. In order to maintain the natural appearance of the wall, it is recommended to take the boards from different places on the pallet. At this stage, it is necessary to re-check the colors of all panels.

3. The dimensions of the boards may slightly vary in length and width, within the declared tolerance.

4. The cement-lime wall should be well cleaned of dust and paint. Clean the boards from dust from the gluing side.

5. Make sure that the wall is load-bearing and properly primed. Apply primer to the wall with a brush until it is completely saturated. Absorbency should be checked one hour after the last application of the primer and repeat until successful, depending on the absorbency of the wall. PERFECT GRUNT should be used for priming concrete panels and walls. After priming, wait 8-24 hours for the primer to dry.

6. Before installation, check the colour, shade and pattern of panels again.

7. The panels should be impregnated (if additionally required) in a horizontal position using VHCT PERFECT IMPREGNAT. Excess impregnation, which concrete does not absorb, should be removed immediately, e.g. with a sponge roller.

8. Impregnation should be performed first on two or three panels and check the results, if everything looking ok, continue impregnation on subsequent panels. In a case of decolourisation, please contact us on info@3dartfactory.co.uk for consultation.

STORAGE

Concrete panels should be stored in a vertical position, leaning against the wall with the long edge of the panels, in a dry position and a ventilated room. Store without wrapping foil.

Do not store the concrete panels outdoors. The method of packing prevents air access to the boards, which may affect the colours discolour if panels are not properly unpacked and stored.

INSTALLATION

For gluing concrete slabs use:

- VHCT CONCRETE CONNECT - for most types of substrate: glass, sanitary ceramics, porcelain, painted, enamelled, glazed surfaces, plaster, building ceramics, clinker, concrete (including: wet concrete), epoxy substrates, polyester, polyurethane, HPL, styrodur, PVC and plastics of a similar type, metals and their alloys (copper, lead, zinc, aluminium, etc.), steel (galvanized, stainless, enamelled), impregnated wood, cork, MDF, OSB, chipboard and other wood-based materials. For connections with highly porous or absorbent substrates, it is recommended to use VHCT PRIMER. In case of doubt, carry out an adhesion test. We recommend using glues:

- VHCT SILVER - for cement, concrete and plaster substrates - has accelerated setting and reduced drying time, for discoloration-sensitive materials.

Adhesive methods:

A: Installation with glue: VHCT SILVER

Follow the adhesive manufacturer's recommendations, in particular with regard to the amount of water! It is recommended to glue dry panels to the so-called comb.

a) the substrate must be load-bearing, free from loose fragments, cleaned, dusted off and degreased;
b) the adhesive should cover at least 90% of the board surface in contact with the wall, gaps in the adhesive mass can lead to cracks in the plate;

- c) it is forbidden to make a "frame" with glue on the board, gluing the so-called method "on glue dabs;
- d) it is not allowed to use glue thicknesses greater than 10 mm, with glue thickness greater than this may occur discoloration, deformation, cracks in the panel;
- e) it is not allowed to hit the boards with a hammer or hand when sticking, be sure to press the boards down until obtaining permanent connection of the adhesive on the entire surface of the board with the wall;
- f) when fixing the board to the wall, make a minimum circular movement in order to set the board and pressing the glue to achieve the effect referred to in point B.e);
- g) panels with even temperature of panels should be installed in the room where they are installed;
- h) should be installed at temperatures between 5 and 25 degrees Celsius;
- i) the comb (trowel) should be applied in such a way that it does not cross, i.e. from left to right or top to bottom (or vice versa), but never both!

B. Installation with glue: VHCT CONCRETE CONNECT

- a) the substrate must be load-bearing, free of loose fragments, cleaned, dusted off and degreased;
 - b) a reinforced construction squeezer designed for thick masses should be used;
 - c) the adhesive should be squeezed through the attached applicator with the 'V' notch, holding the cartridge at an angle of 90 ° to substrate;
 - d) the adhesive should be applied in vertical, parallel strips at intervals of 20 cm (depending on the load);
 - e) the glued elements should be joined together and pressed within 10 minutes from applying the glue;
- Walls made of gypsum plaster are not a stable surface, they are not suitable for installation and we recommend individual consultations with a specialist installer.

An example of mounting on walls with plasterboard or with gypsum plaster:

→ anchored plaster board + GRUNT VHCT + VHCT CONCRETE CONNECT adhesive;

→ anchored OSB board + GRUNT VHCT + VHCT CONCRETE CONNECT adhesive.

OSB board - remove the varnish by sanding. Use clean gloves during assembly. Any stains should be removed immediately after they appear, before drying. Install architectural concrete slabs with a gap of about 3-4 mm between the slabs, leaving a gap. Without fillings, keep dilatation from walls and ceiling. All concrete panels cutting works should be performed with diamond tools and drill bits should be used intended for use in concrete without impact.

Acceptable cleaning agents: soapy water, fine polishing sandpaper 2000. Installation on the facades should be based on the design and good construction practice. The type of installation system is selected individually.

DECLARED PERFORMANCE

Characteristic of the material: Concrete cladding element
Bending tensile strength - $\geq 2,0$ (MPa)

Density class - 2.2

Dimensional tolerances: Class A (± 3 mm) Reaction to fire: Euroclass A1

Water vapor permeability coefficient: $\mu = 5/15$

Dimensional stability under the influence of moisture and drying.: 060 mm/m. Shrinkage due to drying out (inside / outside): 0,34mm/m.

Insulation against direct airborne sounds: Gross density 2200 kg / m³ ≤ Resistance to freezing and thawing with participation de-icing agent: < 0,6 kg/m².

All works should be performed in accordance with the construction practice. The above description has been prepared according to the state of the Art and the Producer's experience. Always check your own installation conditions on site. The technical data sheet does not replace the professional knowledge of the installer!

IMPORTANT INFORMATION

The information contained in this document results from our experience and previous knowledge, however, it is not binding. The conditions of a particular implementation should be judged onsite and considered on a case-by-case basis, e.g. wall type or place of installation, purpose and expected effects. In any case, the general principles of construction technique and the guidelines given by the material manufacturers must be observed.

Installation should always be carried out by professionals experienced in this type of work. The manufacturer is not responsible for incorrect installation, not compliant with the information included in this Manual and in the documents referenced therein, including Adhesive Information Cards, in particular for the wrong assessment of the load capacity and the condition of the construction of the wall.

By placing an order, the buyer declares that he is familiar with the features of architectural concrete, including those listed in this Manual and accepts them. The buyer also acknowledges and accepts the possibility of visual, aesthetic and colour differences in relation to marketing materials, photos, visualisations and samples.

DISCLAIMER

We reserve the right to amend the details contained within this document without prior notice. Precast panels can have minor manufacturing characteristics present such as telegraphing of the cellular structure and minor surface particle or imperfections. These are normal visual elements for this type of product and if present are not grounds for complaint.