



tilo

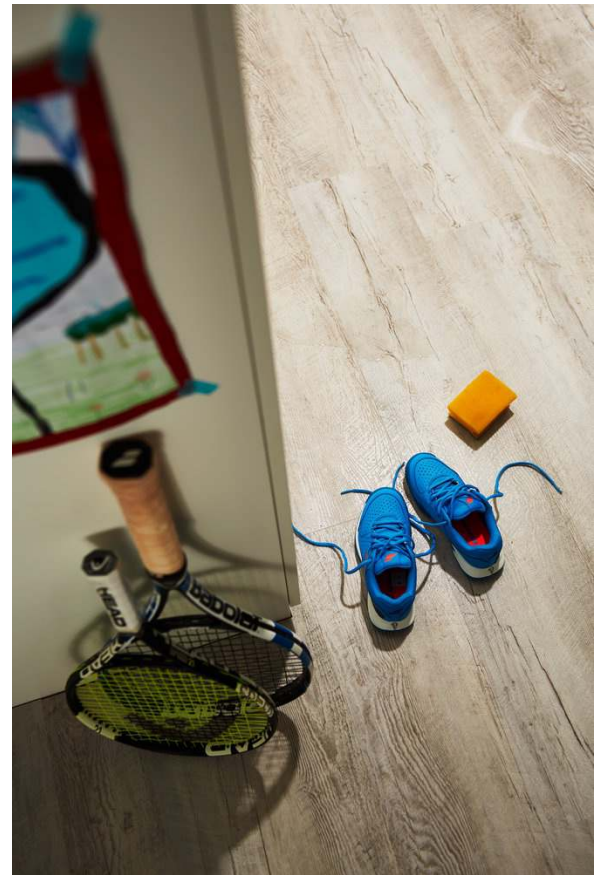
macht den Boden.

Design PRO+
full spread gluing,
suitable for damp locations



**INSTALLATION
GUIDELINES**

www.tilo.com



Preface

Thank you for choosing high-quality flooring products from tilo. All of our products undergo thorough quality control checks and meet high standards of quality.

These installation guidelines provide important information and tips to ensure that the floor is installed correctly. Read each step carefully. tilo can only honour the relevant warranties if the flooring has been installed correctly.

Differences between tilo installation guidelines

tilo installation guidelines differ depending on the installation system they describe (powerFIX, tiloFIX, simpleFIX, tongue and groove), the type of installation (floating or full-spread gluing) and the area of application (dry locations or damp locations). Please check whether these installation guidelines are correct for your floor as well as the installation system, the type of installation and the area of application. More information can be found on our website www.tilo.com.

Rooms with large windows

Please note that in rooms large windows in particular, changes in colour caused by UV light cannot be ruled out completely and are therefore product-specific. Shading may be necessary

Before you start

These guidelines describe the full-spread gluing of the Design PRO+ installation system. This type of installation means that the product is bound to the subfloor (e.g. screed) across its entire surface using an adhesive.

Area of application

Suitable for living spaces with an average indoor climate with 40 to 60% relative humidity and between 16 and 24°C. Not suitable for damp locations and wet locations.

Installation in conservatories, shop windows, etc.

A floating installation is possible, but only if permanent climatic conditions suitable for living spaces can be guaranteed. Shading may be required in order to avoid little discolouration

Points to note before installation

We recommend that installation is carried out by an appropriately trained professional. Only a professional is able to sufficiently assess the readiness for installation of the subsurface and, in particular, the physical structure of the construction and its environment. Professional installers are familiar with the rules of the trade and the standards that must be complied with for successful installation.

Prior to installation, the product should be inspected for possible defects in adequate light conditions. Any subsequent damage caused by installing a product with errors that could have been identified beforehand will not qualify for compensation. Small variations in colour and texture are a characteristic feature of the wood and are unavoidable.

Installation requires a small amount of force. Connections may be damaged if installation is not performed properly.

Points to note before installation 2

We recommend that the product is stored, unopened, in the rooms in which it will be installed (at a temperature between 18 and 24°C) for as long as possible, until complete acclimatisation has taken place. 48 hours is usually sufficient for temperature equalisation.

The product should only be installed in rooms in which floor surface temperatures are maintained at between 18°C and 29°C and relative air humidity is maintained at between 40 to 60% in order to avoid excessive swelling and shrinkage of the materials. The ideal climate is 20°C.

Please ensure that all structural tasks have been completed before the installation. Dust and construction waste may damage the product.

Flatness

In order to smooth out any unevenness and maintain an evenly absorbent subsurface, smooth out pronounced roughness or remove sinter layers or sandy layers, the subsurface should be sanded and vacuumed or, if necessary, built up to a suitable thickness with the appropriate precoats and fillers. Please observe the instructions of the products required and of the relevant building material suppliers.

Expansion joints

We recommend discussing the need for and the positioning of the required expansion joints (large surface areas, oddly shaped rooms, unusual construction conditions, etc.) with an appropriately trained professional. Any expansion joints can be covered using suitable coverings.

Expansion joints determined by the on-site subsurface (e.g. where screeds from different rooms meet) must be reflected in the flooring too.

Installation size

There are no limitations concerning the surface area or room layout. Additional expansion joints are therefore not necessary. An edge distance of a few millimetres should be planned to allow the subsurface to breathe.

Underfloor heating

tilo flooring elements can be installed over subsurfaces with underfloor heating. It is vital that the customer properly heats and cools the underfloor heating before the installation of the flooring elements. The presentation of the heating process protocol is absolutely essential (for further information, especially for installation over electric underfloor heating systems, see TI_025_Richtlinien_Verlegung auf Fußbodenheizung). Please note that the temperature of the surface of the tilo flooring elements must not exceed 29°C, even in border areas and underneath furniture or carpets (heat accumulation).

Readiness for installation

The readiness for installation of the subsurface must be tested in accordance with DIN 18365 "Flooring work" or ÖNORM B2236 and finished accordingly. This means, for example, that the subsurface must be clean, free from cracks, sturdy, flat and dry. Small areas of unevenness (drops of paint, plaster residues, etc.) and textile floor coverings (carpets, needle felt, etc) must be removed.

Permissible screed moisture according to the CM method (only valid for unmodified standard screeds):

- For cement screed: <2.0% CM (with underfloor heating 1.8% CM)
- For anhydrite screed <0.3% CM (with underfloor heating 0.3% CM)
Please ensure compliance with the relevant national standards. Alternatively the ERH method (=Equilibrium Relative Humidity) can be applied for measuring the screed moisture.
- For cement screed according to ERH method: without underfloor heating $\leq 65\%$ rLF; with underfloor heating $\leq 60\%$ rLF
Screeds that are not standard (e.g. rapid screed, unknown equilibrium moisture content or modified in any other way), must be measured using the ERH method. In that case or if both CM and ERH methods are used, the measurement of the ERH method is deciding if the screed ist sufficiently dry. (For further Information see „TI_255_Messung_Untergrundfeuchte_KRL-Methode_en.pdf“)

The unevenness of the subsurface may not exceed the values shown in Line 4 of Table 3 of the latest version of DIN 18202 "Flatness tolerances". As a rule of thumb, at a measuring length of 1 m, the unevenness of the floor may not exceed 3 mm.

Flatness tolerances at measuring lengths of more or less than 1 m can be found in the diagram contained in the standard.

Installation guidelines

Design PRO+

Tools required

Strong carpet cutter, tape measure, try square, handheld pressure roller, pressure roller for floor coverings from approx. 50 kg.

tilo EC1 PLUS adhesive for SPA rigid boards and PRO+ adhesive sheets vinyl floors

Observe the application instructions

Apply tilo EC1 Plus adhesive to the prepared subfloor using the notched trowel recommended in the application instructions. Remember to take into consideration the airing times and working times of the adhesive. Tilo EC1 Plus adhesive is intended for application in the wet set and requires an absorbent subfloor. Do not apply fresh adhesive over adhesive that is already dry, otherwise the overlap will show later. Completely remove any dried adhesive. Immediately remove any adhesive applied to the top surface by mistake.

Determining the direction of installation

Determine the direction of installation and measure the room. If the last row will be less than 5 cm wide, cut the first row narrower. Make sure to take into account any unevenness in the wall.

Step 1: Marking out the reference edge

While still dry, lay out the first three to four rows to the right and left. Mark along the edge of these three rows using a chalk line or straightedge, making sure that the line is completely straight, to form the reference edge. When cutting the adhesive sheets, score the top side well using the carpet cutter and then bend the adhesive sheet. If necessary recut the underside with the cutter.

Step 2: Application of adhesive

Apply the adhesive evenly using the notched trowel from the reference edge to the wall. Make sure to apply it all the way up to the reference edge. Excess adhesive must be removed immediately.

Step 3: Installing the planks

After the necessary airing time, apply the first adhesive sheet to the adhesive bed along the reference edge, making sure it is completely straight. Press it in using the handheld pressure roller. Line up the second adhesive sheet precisely with the first adhesive sheet, laying it flush against the short end of the first adhesive sheet. Ensure that the sheet is absolutely straight up against the reference edge. Always secure the adhesive sheets using the handheld pressure roller - make sure to press the short ends particularly well.

Step 4: Completing the first row

Continue in this manner until the last adhesive sheet of the first row. Cut this adhesive sheet to the appropriate size.

Step 5: Completing the first three rows

The second row can be started off using the offcut from the first row, if the short end offset is at least 30 cm. If not, cut the first plank of the second row as appropriate. Make sure to maintain a short end offset of at least 30 cm. Continue gluing the remaining rows as described.

Step 6: Gluing the rest of the floor

The next row is laid in the remaining space, beginning from the reference edge. Remove any dried-on adhesive sticking out over the reference edge using a sharp tool. Apply approximately two rows worth of adhesive, let it air and apply and press in adhesive sheets as described.

Step 7: Rolling

Once approx. six to nine rows have been completed, the completed area is rolled up and down and from left to right using a heavy pressure roller. Make sure not to displace the outer rows. Do not "park" the heavy pressure roller on the glued area. Press the border areas using the handheld pressure roller.

Step 8: Remaining rows of planks

Continue in this manner until the entire area has been fully glued. Finally, the borders and the rest of the area are given a final roll and press. The floor must only be walked on once the adhesive has hardened completely.

This information is provided with the intention of offering you advice based on the best of our knowledge, on the basis of our trials, experiences, tests carried out, applicable standards and the rules of the trade. Should you require any additional information, our technical and commercial advisors will be happy to assist you. Always consult our advisors for advice before starting any large-scale projects. We assume no liability for any errors and reserve the right to carry out technical modifications.

Please visit www.tilo.com for further information and updates.