



## GLUE DOWN DESIGN FLOORS

Fitting advice for mFLOR floors

### **Checking and pre-treating the sub-floor**

#### **Checks**

The sub-floor must be kept dry, level and clean, as described in DIN 18365. The sub-floor must also be compression and tension-resistant. If these requirements are not met, please contact an expert.

The following defects and issues often arise where sub-floors are concerned:

- Major unevenness in the floor.
- Cracks in the floor.
- The floor is insufficiently compression-resistant.
- The surface is too porous.
- The sub-floor has expansion joints. In this situation, it may be necessary to use special covering strips (profiles) and attach the flooring to them.
- The floor has been seriously marked with oil, wax, varnish, adhesive or paint residue, etc.
- There are unwanted level differences between the sub-floor in question and other rooms.
- The temperature and humidity conditions in the room(s) in which you need to work are not within the norms applicable.
- If there is an underfloor heating system, make sure that instructions are present on how to activate the heating and also establish whether you have acted in line with the rules so far. This is important as the wrong floor temperature can result in drastic consequences.
- The sub-floor may or may not be direct-to-earth, but is not ventilated, or only insufficiently.
- Floors at or below ground level and not direct-to-earth.
- Floors under ground level and in ground water and not direct-to-earth.
- Direct-to-earth floors, but not ventilated or only insufficiently.

#### ***The sub-floor***

If you have a floor that is permanently dry, crack-free, clean, tension and compression-resistant and level, you can set to work with confidence. However, do check the hardness of the top layer of the floor with a hard, sharp object being starting. Start by scratching horizontal and vertical lines into a surface area of approximately 100 cm<sup>2</sup> at intervals of approximately 1 cm. If the top layer within the 1 cm<sup>2</sup> squares does not break up, you can assume that the top layer is hard enough.

Prepare the floor in accordance with DIN 18365. The floor must be flat, level and compression-resistant (flatness tolerance with a maximum height difference of 1 mm per metre). If necessary, use a suitable levelling agent to level the surface.

A PE foil that is at least 150 Mu thick must be laid under any MDF or other floating wood sub-floor (Jumpax, for example).

Adhesive may only be applied to commercial floors after a special pre-treatment has been completed (priming and levelling, for example). For advice on the pre-treatment required, please contact your supplier of adhesive and levelling compounds.

### ***The moisture content in the floor***

All floors, with the exception of cast concrete, have a maximum permissible percentage by weight of moisture.

All sub-floors must be allowed to dry out after casting and before you will be able to fit flooring without any problems. The drying time applicable will depend on the thickness of the construction, weather conditions, heating options and ventilation, etc. If the moisture content of the sub-floor exceeds the percentage permitted, the sub-floor will not be suitable for the installation of a damp-proof flooring on top of it.

Make sure that you are fully aware of which situation applies to you in all cases. For example, will a damp-proof membrane be fitted between the construction and the levelling agent? If so, it will be important for the moisture content to remain within acceptable limits. However, it is even more important to be sure that the moisture content of the floor always remains within acceptable limits.

Added to the above, underfloor heating systems must be fitted in a way that makes it impossible for moisture to move upwards from under the floor or adjacent rooms.

**Always measure the moisture content in the floor before fitting and make sure that it is appropriate for the type of sub-floor in question. If you have any doubts at all, always consult an expert.**

The CM-Gerät is a reliable tool to use to establish the moisture content applicable. All measurements must be confirmed with the client in writing.

N.B. You may not use any moisture measurement methods (the CM-Gerät tool, for example) on floors with underfloor heating that would involve making holes in the floor. If there is underfloor heating, there will generally also be start-up instructions or a so-called 'warm-up protocol'. If the above is observed, it will not be necessary to measure moisture content.

<b>The composition of the sub-floor</b>	<b>The moisture content permissible when fitting MFLOR plastic flooring, measured using the CM-Gerät</b>
Sand / cement	< 2.5 %
Anhydrite	0.3 % to 0.5 %
Magnesite	< 0.3 %
Cold bitumen	< 2 %

### ***Pre-treatment of the floor screed***

In principle, all types of floor screed must be **PRIMED AND LEVELLED** because the slightest unevenness in the sub-floor will impact on the finished floor otherwise.

If necessary, contact your supplier of adhesive and levelling products about the above. Primers and levelling products must be applied in accordance with the instructions provided by the producer. They must be applied in such a way that they achieve a long-lasting adherence to the sub-floor, do not crack and are sufficiently compression-resistant. The minimum levelling thickness for moving loads is 2 mm.

When dispersion adhesives are used, dense, non-absorbent sub-floors must have been levelled with a sufficiently thick (min. 2 mm ) layer of levelling product. After levelling, cut off the edges of the

liquid screed along walls and transitions. Also cut off protruding insulation material and protective foil.

Always use PE foil for floating sub-floors.

#### ***Installation conditions***

- An ambient temperature of at least 18°C.
- A sub-floor temperature of at least 15°C.
- A relative humidity of no more than 70 %.
- The room(s) in question must have a minimum temperature of 18°C and the same applies for the flooring itself and the primer and adhesive products.
- When measuring the moisture content, establish whether the floor is the same thickness throughout – thicker layers will need longer to dry.
- Make sure that drying conditions are optimal.
- Apply primer products with a roller, not with a floor squeegee.

#### ***General tips for fitting MFLOR vinyl floors***

##### ***Checks on the sub-floor***

Make sure that the floor is dry, crack-free, tension and compression-resistant and level at all times.

##### ***Storage***

Make sure that the material is always stored on a flat surface. If the material is not stored flat, you could find that you encounter problems when fitting the floor.

##### ***Checks on the material to be fitted***

All flooring is checked carefully before it leaves the factory. This makes it possible for us to guarantee high standards of quality. However, it is possible that you could still encounter defects. **With this in mind, always check the material for visible defects before fitting it.** Any complaints will only be accepted if they are made before you start to lay a floor. If you make a complaint after fitting a floor, we will only be able to agree to look at it if it relates to defects that were not apparent to you immediately. Please make sure that any complaints are always accompanied by the details provided on the relevant invoice (invoice and order numbers, for example).

##### ***Installation plan***

To make sure that you achieve the best layout and the lowest cutting loss possible, mark out a chalk line to match the dimensions of the strips or tiles to be fitted. We advise you to prepare a working drawing before you start to fit the floor. This drawing should show how you intend to lay the strips or tiles in the room in question.

mFLOR Fonteyn or GRAND Milano installation should always start from the point that is as close to the centre of the room as possible. Please make sure the tiles are square with any walls or fixtures to reduce the need of cutting. Installing tiles outwards from the centre of the room will ensure any rows of part tiles at the sides of the room are of equal width.

##### ***Allowing the material to relax and climate conditions during the fitting process***

To give the material enough time to relax, the strips or tiles must be stacked in small piles in the room in question at least 24 hours before fitting. This will allow the material to adjust to the room and the temperature in the room. The ideal fitting temperature is approximately 18°C; air humidity may not exceed 70 %. If these conditions are not in place, you will find that this will have consequences for you later when you are fitting the floor. This is because the material adjusts to the temperature of the room in which it will

be installed. If temperatures are too low and/or humidity is too high, this will make the material more difficult to fit and the adhesive will not set properly. **Direct sunlight must be avoided, until the adhesive has completely set at the very least.**

If the material is fitted on an MDF or other type of floating wood sub-floor (Jumpax, for example), it must have been laid a minimum of 24 hours and a maximum of 48 hours before you start to fit/glue the mFLOR plastic flooring. Always use PE foil for floating sub-floors.

### ***Avoid colour differences***

We recommend that you use material from only one batch within each room.

To achieve the most realistic result, we advise that packs are always mixed together.

Only follow the arrows on the back of the product if the size of the tiles exceeds 65 x 65 cm (Fonteyn and GRAND Milano collections).

### ***Fitting***

We urgently advise you to a high-quality solvent-free dispersion adhesive. The adhesive to be used should be applied in accordance with the advice and instructions provided.

The use of rolling or fixing adhesives is not covered under the guarantee.

### ***Large sizes***

Installation of strips longer than 140 cm and tiles larger than 65 x 65 cm will always need to be installed with a wet adhesive, like Uzin KE-66, 646 Eurostar Premium or similar

### ***Underfloor heating***

It is possible to use underfloor heating, provided the temperature of the floor does not exceed 30°C. Tests have shown that the influence of underfloor heating falls well within the norm of <0.1 %. Make sure that the underfloor heating has been switched off for at least 24 hours before fitting the flooring and doing anything else. Wait at least 24 hours after fitting the flooring before starting up the underfloor heating again in increments of 5°C per day. At the entrance to and in rooms where the temperature and/or amount of moisture is expected to be higher, we advise that a (moisture and temperature-resistant) polyurethane adhesive is used.

Apply the adhesive with an A-2 adhesive spreader comb.

Place the flooring in the wet adhesive **immediately**. Opening time 15 to 20 minutes, depending on the temperature and relative humidity. During the gluing process, do not crawl or walk over the newly glued flooring, as the wet adhesive may cause it to move. Carefully roller the flooring after approximately 20 minutes and then do this again after approximately 30 minutes.

When laying MDF or other floating wood sub-floors (Jumpax, for example), keep the strips or tiles away from the skirting board. We advise that two people are always involved in the fitting process when working with MDF or other floating wood sub-floors (Jumpax, for example) in particular. This will make it possible for you to lay the strips or tiles in the adhesive bed at the right time across the entire floor.

Always bear in mind the climatological conditions applicable and the temperature in the room in which you are fitting flooring. The instructions provided are based on average conditions. Optimal adhesive strength will have been achieved once tests establish that the adhesive has bonded with approximately 80 % of the surface of the underside of the flooring.

The sides of the MFLOR plastic flooring may be milled, depending on the sort and type of flooring used. You will not be able to weld the seams.

**Never use solvents to remove adhesive residue. Remove adhesive residue with a moist cloth straight away. Dried adhesive residue can be removed with water and soap, if necessary aided by the type of sponge that is used to remove flies from a windscreen.**

To ensure that your floor is protected optimally once installation has been completed, please carefully read and observe the mFLOR maintenance instructions.