

# SUBFLOOR REQUIREMENTS – IMPORTANT INSTRUCTIONS FOR THE INSTALLATION OF TER HÜRNE FLOORING

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**Please also note the special instructions for gluing down products in a separate guide.**

## Contents

### 1. Installation methods

### 2. General subfloor requirements

- 2.1 Types of subfloor
- 2.2 Condition of the screed
- 2.3 CM measurement
- 2.4 Moisture barrier
- 2.5 Floor plate
- 2.6 Glue-down installation on different types of subfloor
- 2.7 Room climate during installation
- 2.8 Drying out of the material

### 3. Additional requirements with underfloor heating systems

- 3.1 Suitability
- 3.2 Glue-down installations
- 3.3 Screed drying time
- 3.4 Heating record
- 3.5 CM measurement
- 3.6 Heating up and cooling down
- 3.7 Room climate during installation
- 3.8 Maximum surface temperature
- 3.9 Drying out of the material
- 3.10 Heating system

## 1. Installation methods

The following ter Hürne products types are suitable for various methods of installation. Their suitability is always subject to the subfloor meeting all the requirements described.

Type of floor	Floating installation	Glue down	Screwing/nailing down
<b>Parquet</b>	Screed, Dry screed, Tiles, PVC, Linoleum, Wood/Chipboard	Screed, Dry screed, Tiles, Wood/chipboard	Not suitable
<b>Avatara – MultiSense-Floor®</b>	Screed, Dry screed, Tiles, PVC, Linoleum, Wood/Chipboard	Not suitable	Not suitable
<b>LVT PRO (2,5 mm solid vinyl)*</b>	Not suitable	Yes*	Not suitable
<b>LVT COMPACT (5 mm solid vinyl)</b>	Screed, Dry screed, Tiles, PVC, Linoleum, Wood/Chipboard	Screed, Dry screed, Tiles, Wood/chipboard	Not suitable
<b>LVT COMFORT (on HDF baseboard)</b>	Screed, Dry screed, Tiles, PVC, Linoleum, Wood/Chipboard	Not suitable	Not suitable
<b>Laminate</b>	Screed, Dry screed, Tiles, PVC, Linoleum, Wood/Chipboard	Not suitable	Not suitable

\* Please refer to the separate document for luxury vinyl tiles PRO, which you can also find at [www.terhuerne.de](http://www.terhuerne.de)

Detailed installation instructions for floating installation are included with every laminate, LVT, Avatara – MultiSense-Floor® and parquet packaging.

The instructions for glue down installation for parquet and LVT, as well as all other installation methods mentioned, are available to download at [www.terhuerne.de](http://www.terhuerne.de)

**Compliance with these conditions is an important part of the ter Hürne terms of warranty.**

## 2. General subfloor requirements

\* Please refer to the separate document for luxury vinyl tiles PRO, which you can also find at [www.terhuerne.de](http://www.terhuerne.de).

### 2.1 Types of subfloor

Basically laminate, LVT, Avatara – MultiSense-Floor® and parquet can be installed on screed, dry screed, PVC, linoleum or tiles (see chart). It is not possible to install any of these products on carpet or textile subfloors.

### 2.2 Condition of the screed

The subfloor must always be firm, level, dry and clean. There must be no cracks. Uneven areas must not exceed a depth of 2mm over a length of 1 metre. Screed must be correctly prepared prior to installation according to DIN 18365 Floor Covering Works and surface evenness tolerance according to DIN 18202 levels. We recommend the use of the correct levelling compound and suitable primer to level out uneven areas in the floor.

### 2.3 CM Measurement

As a general rule, a professional installer must measure the moisture content of all mineral subfloors, such as cement screed, calcium sulphate screed, concrete, stone tiles, etc. and produce a measurement record. The readiness of the mineral subfloor for installation is the prerequisite for a professional installation. The following maximum residual moisture content must be considered (assuming there is no warm-water underfloor heating system):

Cement screed:  $CT < 2,0\% \text{ CM}$

Calcium sulphate screed:  $C < 0,5\% \text{ CM}$

### 2.4 Moisture barrier

It is essential that a moisture barrier (PE-film) of at least 0.2mm thickness is used on a mineral subfloor. PE film must not be used on non-mineral subfloors such as wood (chipboard, old floorboards, etc.). We always recommend the use of an appropriate impact or footfall sound underlay. Please refer to the underlay materials in the ter Hürne accessory range.

### 2.5 Floor plate

In rooms without a basement, the floor plate must be sealed on site against moisture from the ground in accordance with DIN 18195.

### 2.6 Glue down installation on particular types of subfloor

Parquet and LVT floors (solid vinyl) can be glued down. Laminate, LVT (on HDF baseboard) as well as the Avatara – MultiSense-Floor® are not suitable for glue down installation. When installing on tiles, the surface must be well sanded, level and clean (see 2.1). The tiles must be firmly anchored in the mortar bed. We recommend carrying out a gluing test. The glue down method can be used on old floorboards, chipboard or counterfloors as long as certain conditions are met. The area on which the flooring is to be installed must be prepared so that it is dry, level, firm and load bearing.

Chipboard must be permanently bonded to the substrate or screwed onto joists, the tongue and groove connections should be glued and sufficient clearance left on all sides to other components. Old floorboards must be permanently bonded to the subfloor in order to prevent creaking noises. If necessary transversely deformed planks should be planed to make them flat. The planks are glued transversely on the old floorboards. Due to differences in the individual conditions, we recommend you contact your specialist dealer or the manufacturer in case of any doubt.

### 2.7 Room climate during installation

The room climate conditions during installation of the planks (without underfloor heating) should be as follows:

- minimum air temperature 18° C
- minimum floor temperature 15° C
- maximum relative humidity 75%; maximum 65% for glue down installations (according to instructions of the TKB - Technical Commission for Building Adhesives)

### 2.8 Drying out of materials

Due to the characteristics of wood, as a natural material, and the climate conditions prevalent within the room during periods when heating is used, the formation of joints and cracks as well as drying out of the material cannot be completely excluded.

### 3. Additional requirements for underfloor heating in conformance with EN 1264-2

#### 3.1 Suitability

The ter Hürne product ranges of laminate floors, luxury vinyl tiles (full vinyl and on HDF boards), Avatara MultiSense-Floor® and parquet are suitable for installation with warm water underfloor heating on cement or calcium sulphate screeds. Equally suitable are electric surface heating systems with gentle warm-up technology and temperature control unit. An even heat absorption and emission is achieved due to favourable thermal resistance. Installation on a subfloor which is only heated in certain areas is not permitted. Where heating systems are fitted with re-cooling, they must be equipped with automatic dew point control to prevent condensation.

#### 3.2 Glue down installation

In comparison to a floating installation, the full-surface bonding of parquet is particularly suitable for installation on warm water underfloor heating systems and the above-mentioned electric surface heating due to the lower thermal resistance. Static and dynamic loads are largely absorbed by the elasticity of the adhesive. Footfall sound is also significantly reduced. For glue down installations, please refer to the preparation requirements according to VOB part C DIN 18356 “parquet works” and our installation instructions. We recommend only the use of Sikabond adhesives, which are optimally suited for use with ter Hürne products.

#### 3.3 Screed drying time

Freshly applied screed must be allowed to harden before any heating is used; the length of time will depend on the type of screed used. For cement screed the drying time is minimum 21 days and for calcium sulphate screed 7 days before the heating engineer may perform a so-called functional heating. This only checks the heating system for leaks and the results are recorded in accordance with DIN 4725-4.

#### 3.4 Heating record

It is imperative to keep a heating record of the underfloor heating system and to make this available to the floor installer. The heating record only proves that the heating system is working properly and is not sufficient on its own to evaluate if the screed is ready for the installation of the floor. Further information and instructions from the Central Association of Parquet and Flooring Technology are available at [www.zv-parkett.de](http://www.zv-parkett.de)

#### 3.5 CM Measurement

Similarly to the information provided in point 2.3, the following residual moisture content applies for subfloors if there is a warm water underfloor heating system:

Cement screed: CT < 1.8% CM

Calcium Sulphate screed: CA < 0.3% CM

#### 3.6 Heating up and cooling down

When the heating system is first commissioned following installation of the floor, as well as at the start of any period when the heating is used, the inlet temperature should be increased by 10°C each day until the full (maximum) heating capacity is reached. Cooling down should also take place in stages of 10°C per day. The screed must always be heated up prior to any installation work or any renovation work in old buildings if the floor is to be installed on an old screed substrate – this also applies during the summer months.

#### 3.7 Room climate during installation

When installing boards (when an underfloor heating system is present) the room climate should meet the following conditions:

- Minimum air temperature 18°C
- Floor temperature with underfloor heating activated 18 – 22°C
- Maximum relative humidity 75%; maximum 65% when gluing down (according to information of the Technical Commission for Industrial Adhesives)

### 3.8 Maximum surface temperature

The maximum surface temperature of 27°C (80.6°Fahrenheit) must not be exceeded either during installation or in constant operation. For parquet there is a maximum surface temperature of 29°C (84.2°Fahrenheit). Please note there can be a build-up of heat where surfaces are covered (e.g. with carpet).

### 3.9 Drying out of materials

The operation of underfloor heating increases the natural swelling and shrinkage of the wood and in addition to distortions, the possible forming of joints and cracks are typical behavioural characteristics (see also 2.8) that do not constitute grounds for a complaint.

### 3.10 Heating system

Ter Hürne cannot recommend heating systems other than those previously described under 3.1. The Information provided by the system manufacturers must be observed.

#### **Note:**

**Our technical usage instructions written or verbal, in general, in the installation instructions, in the technical information sheets and in all brochures are based on experience and to the best of our knowledge, however they do not imply any liability. Due to the many varied application possibilities it is not possible to describe all details. ter Hürne therefore does not accept any liability arising from the use of these instructions.**

**These instructions can be amended at any time without notice in line with technical advances.**

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