

# Basic Knowledge

Introductory Text – What is the purpose of this chapter?

- To impart the basic knowledge which is should be clear to all floor layers but still explain the finer points which ensure a professional result.
- Laying Methods
  - Screwing from the top / concealed
  - Full-surface bonding
- Full length vs. random lengths
- Visible joints
- Edge clearance
- Edge finish

## 1.1 Laying Methods

Basically there are two possibilities of fixing the pur natur floorboards to the substrate: Screwing and bonding.

Where technically possible and sensible, we recommend the screwing of the floorboards. Some substrates, such as, for example, screed with underfloor heating, however, make the bonding of the floorboards sensible and / or necessary. Which laying method is best suited to which floorboards can be found in the following table "YY Laying Methods"?

**Advice: Due to their special dimensions, pur natur floorboards cannot be laid "floating", that is, laid on a substrate without either being screwed or bonded to the substrate!**

### Overview of Laying Method / Substrate

Possible laying method depending on the substrate

	Sleepers / Beams	OSB / Boards (min. 22mm)	Concrete / Screed
Concealed screws	✓ max. 300mm floorboard width	✓ max. 300mm floorboard width	x

Screwed from the top / screwed through	✓	✓	x
Full-surface bonded	x	✓	✓

### 1.1.1 Screwing

#### Features, Advantages and Disadvantages

With screwing, the pur natur floorboards are fixed to the substrate using screws. The great advantage of screwing is the possibility of later being able to undo the fixing again.

There are two possible ways of screw-fixing the floorboards:

- Screwing from the top
- Concealed screws

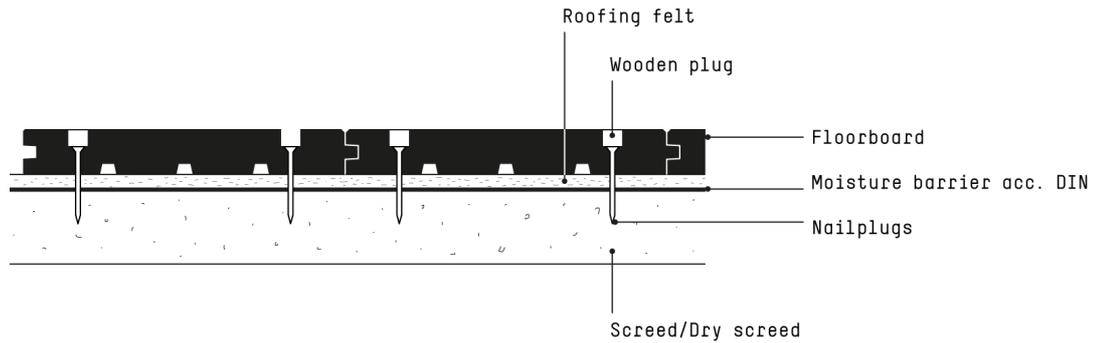
#### Screwing from the Top

In screwing from the top, all floorboards are screwed vertically to the substrate. The screw holes are then sealed using wooden plugs in the same wood.

As a rule, the distance between the screws is determined by the beam spacing of the substructure and must not exceed 100cm.

#### Features

- The start point can be freely chosen, even in the middle of the room.
- Laying can continue in both directions from the starting floorboard.



### Carrying Out

1. Using a 15mm Forstner bit, drill a 6-10mm deep hole on both sides of the floorboard always at the same distance from the floorboard edge. The wooden plug later sits in this hole.
2. Now drill the screw hole using a 4mm wood drill. (Attention: only drill through the floorboard, not into the substructure).
3. Then fix the floorboard to the substrate using the screws.
4. At distances of 100cm maximum, screw down the floorboard over its entire length as described in steps 1-3.
5. Once the floorboards are screwed down, glue a suitable wooden plug in each hole. For a harmonious appearance, pay attention to the colour and grain of the plug and align this with the grain direction of the floorboards. Put some wood glue in the hole and tap home the plug using a rubber hammer.
6. Then sand all plugs flush with the floorboard using a hand sander and 80 grit size.

**Advice: No glue on the tongues of the floorboards!**

**Advice: With floorboards in 16, 21 or 22mm thicknesses, the plug hole is drilled only 6mm deep so that the floorboard is still strong enough to hold the screw!**

All recommended screw sizes and distances can be found in the chapter "Lookup Tables". Suitable wooden plugs in Douglas fir and oak can be obtained from pur natur.

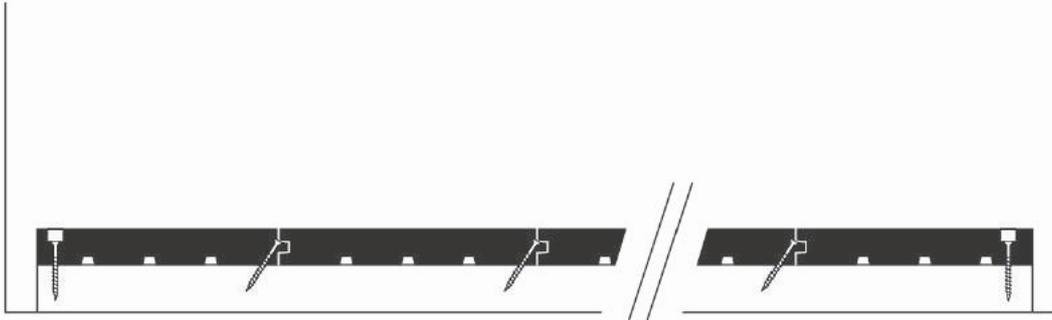
### Concealed Screws

**Advice: Concealed screwing is only possible with floorboards up to 300mm width!**

With concealed screws, all floorboards are screwed to the substrate through the tongue with the screws at an angle of 45° and at distances of 40—60cm. The screw heads are later concealed by the groove of the following floorboard. The respective first and last floorboards must be screwed from the top on the side next to the wall in order to avoid "clatter".

### Features, Advantages and Disadvantages

- From the starting floorboard, laying can only continue in one direction, in the direction of the tongue.
- Therefore the laying must start at one wall of the room and run to the opposite wall.



### Carrying Out

1. Fix the floorboard over its entire length on the groove side (towards the wall) using the "screwing from the top" method.
2. Now screw the floorboard on the tongue side to the substrate through the tongue at a 45° angle. In doing so, sink the screw head deep enough as possible into the wood so that the groove of the following floorboard can be easily fitted.
3. Push all following floorboards on to the tongues of the previous floorboards and secure them as described in step 2.
4. The last floorboard is likewise pushed on to the tongue of the previous floorboard and again screwed down using the "screwing from the top" method.

**Advice: Ensure that the screws are not overtightened as otherwise the tongues can be broken off. Screw them in carefully and preferably with a cordless screwdriver with a torque limiter!**

All recommended screw sizes and distances can be found in the chapter "Lookup Tables".

### Full-surface Bonding

With full-surface bonding, the floorboards are fully bonded to the substrate using special parquet glues. This method is suitable for flat substrates such as screed, Fermacell or OSB boards. All pur natur floorboards can be laid fully bonded. For the bonding, use exclusively the adhesives and primers recommended by pur natur.

#### Advantages

- > Very good footfall sound behaviour as the adhesive serves as an acoustic de-coupler.
- > Low installed height as no additional substructure is needed.
- > Very high strength due to the use of premium adhesives which keep the floorboards in shape but nevertheless allow the wood to work a little.

- > Very significantly solid underfoot feel, especially with solid wood.
- > The starting point of the laying can be freely chosen, even in the middle of the room.
- > Laying can continue in both directions away from the starting floorboard.

**Disadvantages**

- > The removal of a bonded floor is very time and cost intensive. The floorboards are completely destroyed in the process. Damage to the screed and / or the subfloor is unavoidable.

**For details please read our Guide “Full-surface Bonding”.**

## 1.2 Visible Joints

### Explanation

The laying of pur natur floorboards can be done in two ways

1. Without visible joints, that is, floorboard to floorboard laid tightly together.
2. With visible joints, that is with a small, visible gap between the individual floorboards.

**Advice: With solid pur natur floorboards, laying with visible joints is absolutely necessary from a board width greater than 300mm!**

pur natur floorboards constantly absorb moisture from the air and give it off again. In the process, the wood expands minimally and then shrinks again. In order to avoid damage to the solid pur natur floorboards, with a floorboard width greater than 300mm, this effect requires laying with visible joints. These provide the wood with enough space to "work" and prevent a negative effect on the floorboards. pur natur floorboards in 3-ply construction can be laid in all widths without visible joints as the layers glued crosswise to each other almost completely stop the wood from working.

The recommended joint sizes in relationship to the floorboard widths can be found in Table X.

### Distance Pieces

In order to ensure a precise joint distance along the whole length, distance pieces with a long profile must be used. Thus small pressure points are avoided during the clamping of the floorboards. We recommend aluminium T-profiles at least 30cm long which are clamped between the floorboards at distances of approx. 50cm along their entire length.

## 1.3 Edge Clearance

pur natur floorboard floors absorb moisture from the air and give it off again – therefore the wood requires space to "work". In doing so, the floorboards expand almost exclusively in the width and only in negligible amounts in the length. Therefore, in order to avoid damage to the wood, during laying an edge clearance to the wall must be maintained on all wall sides.

The size of the edge clearance between the floorboards and walls is dependent on the following factors:

- Laying with or without visible joints
- Deck width of the area (= as a rule, room width)
- Type of edge finish

### With or without Visible Joints

When laying with visible joints, each floorboard already has enough room to "work" – a small edge clearance is sufficient. When laying without visible joints, a larger edge clearance is necessary to allow the expansion of the floorboards.

## **Edge Finish**

The edge finish and the edge clearance of a pur natur floorboard floor are dependent on each other and must be weighed against each other. If an edge finish with a joint is required, the expansion of the wood must be taken into account. For a small, even edge clearance, laying with visible joints, where appropriate, is recommended. This must be clarified case-by-case.

### **Covered Area**

Under "the deck width of an area" is understood the area of a room covered with flooring. The greater the deck width the more floorboards which need room to expand and therefore need a larger edge clearance.

With very large deck widths and laying without visible joints, in addition to the edge clearance, an expansion joint of 10-15mm must be formed at a suitable point in the room. Here the floor plan and the spatial situation and / or requirements must be taken into account.

We recommend cork as the expansion joint material. Other materials with wood-like properties may likewise be used.

**Advice: Silicone and similar substances must not be used as expansion joint material!**

The recommended edge clearances in relationship to the laying method and the deck width can be found in Table "X Edge Clearances, S. xx".

## **1.4 Edge Finish**

The edge finish describes the method with which the floorboard floor is completed at the walls. There are basically two possibilities available which are used depending on the project, requirements and concepts:

- Edge finish with a skirting board
- Edge finish with a fitting joint

**Advice: Edge clearances >15mm can only be covered using a skirting board**

A classic floor finish is the skirting board or baseboard. With pur natur you have the choice of white skirting boards or skirting boards in the same wood as the floor. Edge finishing with skirting boards offers the advantage of a larger tolerance with regard to the installation precision at the edges as these are later concealed.

We recommend the screwing, nailing (nail gun) or bonding of the skirting board to the wall. The skirting board must sit flush with the floor but must not be bonded or screwed to it so that the working of the floorboards remains possible.

### **Edge Finish with a Fitting Joint**

For projects requiring it, an elegant, minimalistic edge finish can be achieved in the form of a fitting joint. A fitting joint is a visible gap between the floor and wall which is either left open or is sealed.

To seal the joint, first press a round cord into the joint space. This helps the material consumption and bonding properties of the sealant. Next, seal the joint with sealant. Suitable sealants are, for example, natural stone silicone or parquet joint sealant.

**Advice: Normal silicones should not be used for the filling of the fitting joint!**

**Advice: The installation of a floor with fitting joints requires the greatest of precision when laying the floorboards!**