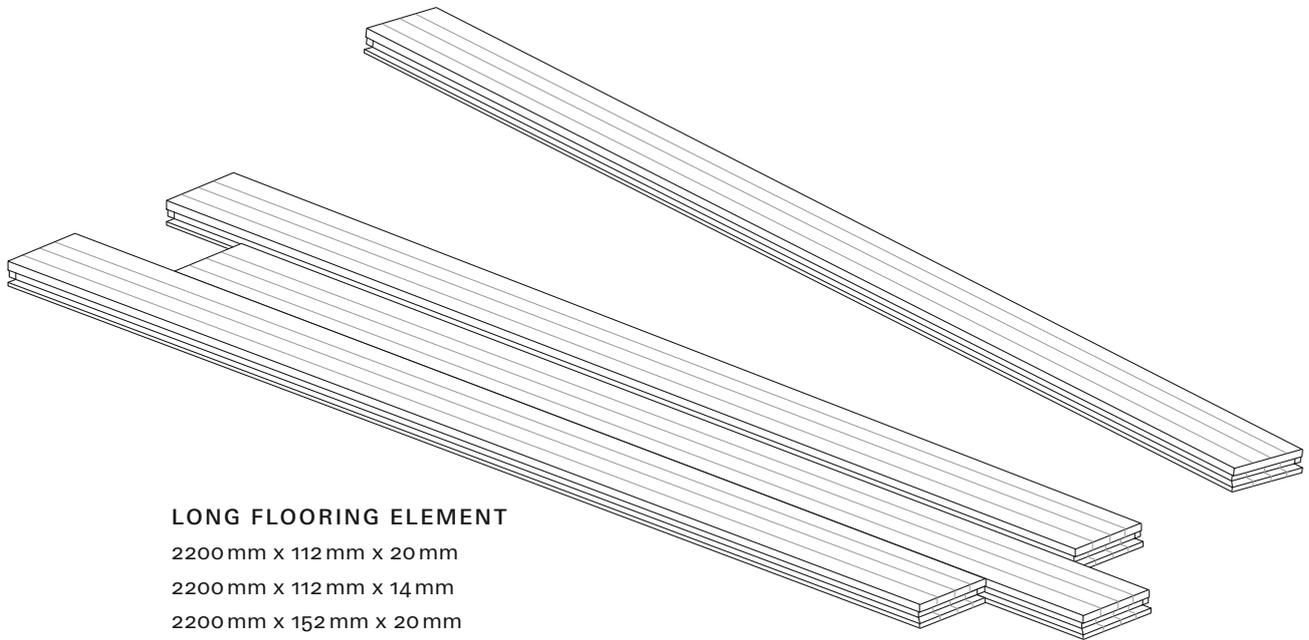
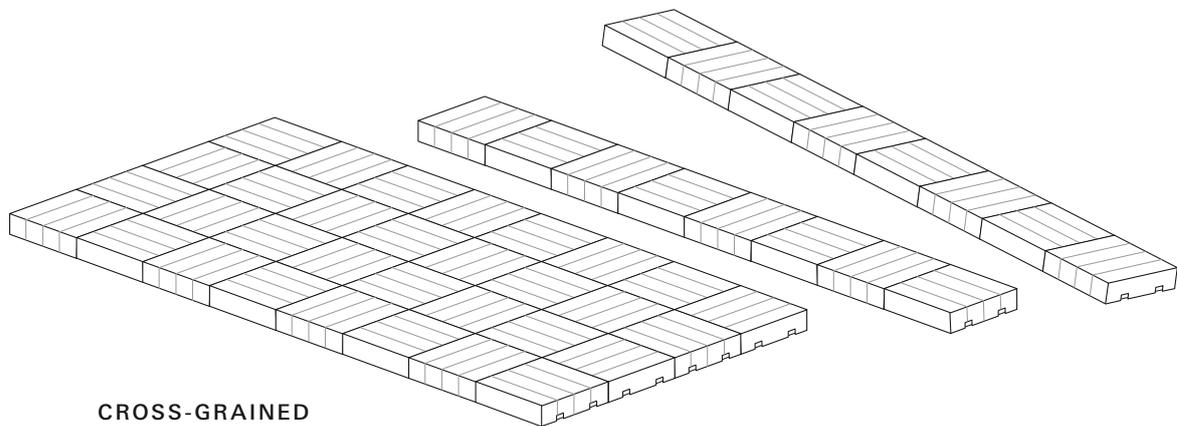


BauBuche Flooring

Laying and Maintenance instructions



LONG FLOORING ELEMENT
2200 mm x 112 mm x 20 mm
2200 mm x 112 mm x 14 mm
2200 mm x 152 mm x 20 mm
(including shorter lengths)



**CROSS-GRAINED
TIMBER SQUARE**
118 mm x 118 mm x 20 mm
158 mm x 158 mm x 20 mm

1. GENERAL RECOMMENDATIONS

Ensure that the flooring is laid properly by a qualified specialist floor laying company. We are confident that you will be delighted with the results.

Recommendations for acclimatisation

After delivery, establish the moisture content of the BauBuche Flooring. This will provide you with a starting point for the acclimatisation measures required. Acclimatisation depends on the geographical location, room climate and the time of year. If the BauBuche Flooring is to be used in an area where the future relative humidity is 40–60%, it can be laid straight away and no acclimatisation is necessary. If the future relative humidity will be below 40% or above 60%, please contact your floor laying specialist for guidelines as regards moisture in your region. Always note the wood and air humidity at the time of laying.

The relation between wood and water

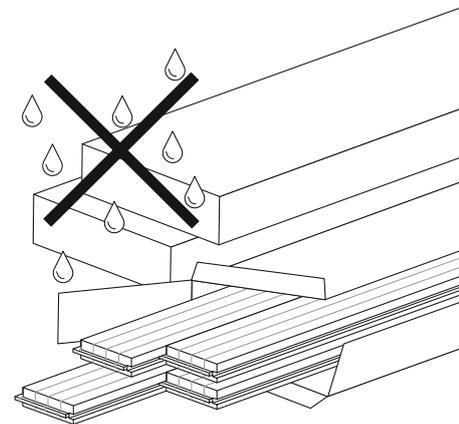
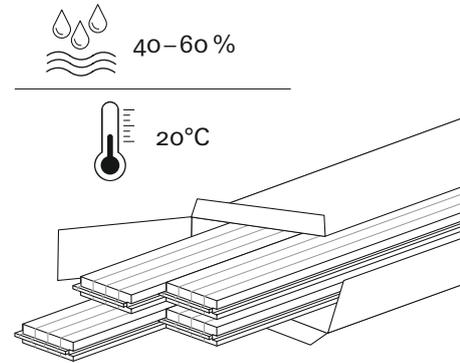
Wood is hygroscopic which means it absorbs moisture when it is exposed to a high air humidity and releases moisture or shrinks in drier environments. Thus, it continually adapts to the environmental conditions. In the worst case, the dimensions of BauBuche Flooring change by an average of 0.4% (only in terms of width) per 1% change in wood moisture. When the BauBuche Flooring leaves the factory, the wood moisture amounts to 7% (+/- 1%). This is the equilibrium humidity content for an environment with an atmospheric humidity of 45%. This means the flooring neither absorbs nor releases moisture if the humidity is maintained at 45% all year round. If the humidity is between 40% and 60%, the floor will expand or shrink slightly. Please note that this humidity value is not only ideal for the wooden flooring but is also perceived as most pleasant by individuals.

Handling and storage of the flooring

Moisture damages the flooring! For this reason, BauBuche Flooring is always packaged in specially developed boxes which preserve the original moisture content of the flooring, provided they are closed properly and not damaged. The pallet with the boxes is protected with plastic stretch film.

Nevertheless:

- _ The flooring should be unloaded during dry weather conditions.
- _ Never deliver or store the flooring in the rain, sleet or snow.
- _ Condensation should be prevented in any case.



Kiln-dried flooring should be stored in a closed, well-ventilated building with weather-proof windows in areas in which similarly sensitive wood products are kept. The storage area should be clean and dry. Persistent dry heat can cause the flooring to dry out too much. If the flooring is subsequently laid without suitable acclimatisation or expansion joints, it could deform.

Conditions at the site of use

Check the site where the flooring is to be laid before delivery. The interior of the building must be dry. If the average moisture content of the subfloors, ceilings and structural elements is below 10%, the building components can be regarded as sufficiently dry.

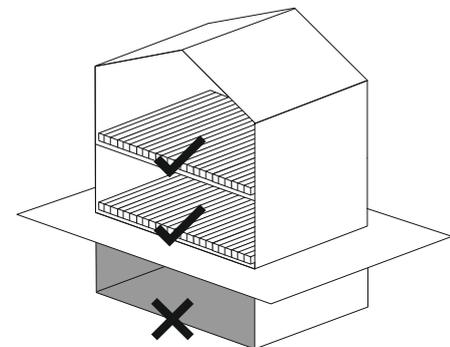
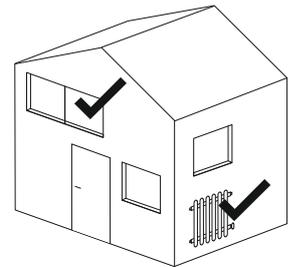
Please ensure that the following conditions are met:

- _ The building is fully closed: all windows and outside doors have been installed.
- _ The subfloor construction for nailing has been laid.
- _ The heating/cooling system is operational (it should be ready for use at least 3 days before the floor is laid).

Floors

- _ **Upper floor:** BauBuche Flooring is suitable for laying on floors above ground level.
- _ **Ground floor:** BauBuche Flooring is suitable for laying on ground-level floors.
- _ **Cellar:** BauBuche Flooring is **not** suitable for laying on floors below ground level.

Before laying the floor, always open several boxes of the BauBuche Flooring and mix the long boards during the laying in order to get a homogeneous appearance.

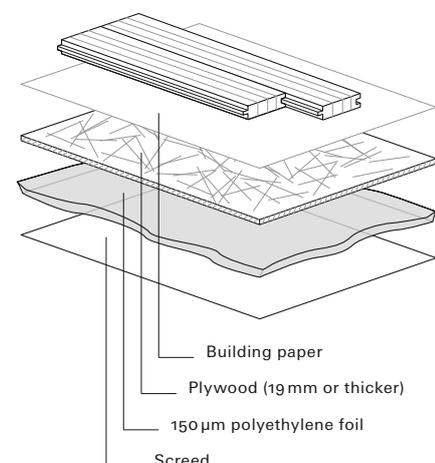


2. INSTALLATION

a) Laying on a plywood concrete system

Sweep the concrete slab. It must be flawless, level and dust-free. The flatness tolerance should be 5 mm over a length of 3 m.

Lay a PE film with a thickness of at least 150 µm over the entire concrete floor. Lay the film so that it rises 10–15 cm up the wall and later secure it behind the skirting board. Allow the adjacent strips of film to overlap by approx. 15 cm. With this system, plywood boards which are at least 19 mm thick are used as the subfloor. Offset the plywood end joints by half the length by cutting the first board of every second row. Place the plywood boards over the entire floor. There must be a gap of 20 mm to all wall lines and vertical obstacles and a space of 10–15 mm between the boards.



Level up the plywood boards and screw them securely to the subfloor. The areas around the screw heads are to be sealed using a sealing agent.

Sweep the plywood floor to get rid of any dust. The flatness tolerance should be max. 5 mm over a length of 3 m. Lay out thin building paper or PE vapour-barrier sheet, making sure the edges overlap by 10 cm. Lay the ends edge to edge.

b) Installation with adhesives

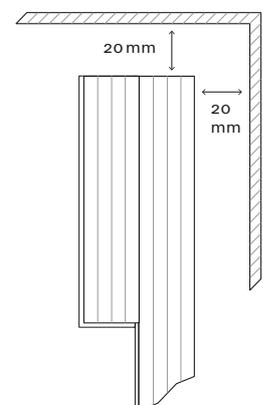
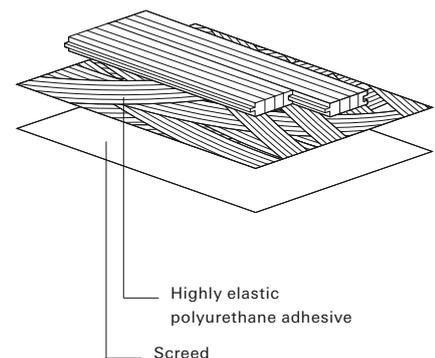
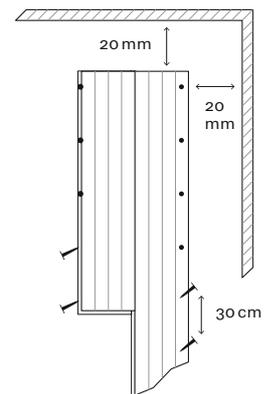
The following recommendations refer to the adhesion of BauBuche Flooring to concrete floors. If you want to glue the flooring to lightweight concrete or self-levelling filler, contact the adhesive manufacturer in advance.

Our recommendation: Together with your supplier, select a highly elastic polyurethane adhesive (e.g., T-54 from Sika (full-surface adhesion) or the AcouBond system from Sika (which satisfies the requirements in terms of sound attenuation)). Other adhesives may also be suitable; however you should always clarify with the adhesive manufacturer in advance whether the adhesive is suitable for the BauBuche Flooring. Always follow the adhesive manufacturer's instructions.

Prepare the concrete floor for adhesion as per the adhesive manufacturer's recommendations. The concrete base must be swept, level and dust-free. The flatness tolerance should be max. 5 mm over a length of 3 m. Check that the moisture content of the concrete floor complies with the specifications given by the adhesive manufacturer (recommendation from Sika for concrete: < 4% with the Tramex method < 2.5% with the CM method). For additional moisture protection, we recommend use of a primer (e.g., Sika Primer MB) as per the adhesive manufacturer's recommendation.

Check the conditions at the site and ensure that the room temperature is around 20°C. The floor should be laid in a temperature controlled environment.

Lay the first BauBuche Flooring board at a distance of 20 mm from the wall and with the grooved side facing the wall. Mark the position of the tongue on the subfloor in both corners of the room. Draw a chalk line between the two markings and use a finishing spatula as per the adhesive manufacturer's instructions to apply the adhesive up to the chalk line. Now adhere the first board row with the tongue flush with this line. Then lay another 3 or 4 more rows and allow to dry overnight. The exact positioning and straight alignment of the first rows are very important here. We recommend the use of lashing straps.



Use standard lashing straps every 4 to 8 rows to keep the boards together. Place the straps approx. every 45 to 60 cm to secure both the middle and ends of the individual boards in the last row. Lashing straps should be used whilst the adhesive is still moist and has not yet hardened. If necessary use weights when securing the boards with straps to keep the floor boards on the floor.

To achieve a homogeneous look, lay 7 to 8 loose rows of BauBuche Flooring edge against edge and in an offset pattern making sure to leave a distance of at least 30 cm between the end joints. Always offset the end joints of the individual boards by at least 15 cm, making sure to avoid H joints.

Now apply the adhesive as usual. The boards can then be adhered in the pattern which was previously set out. Use a rubber mallet and a bar to insert the tongues into the board grooves. If the boards do not fit, cut them and use them as a starting or end piece.

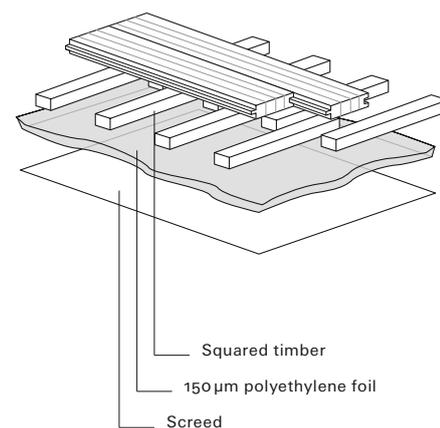
Lay the flooring in the entire room, and just as with the first row, leave a gap of 20 mm to the opposite wall. In rooms with a very high level of humidity we recommend the use of spacers (e.g., coins) when laying the rows to allow the floor to expand.

c) Laying on a timber beam construction

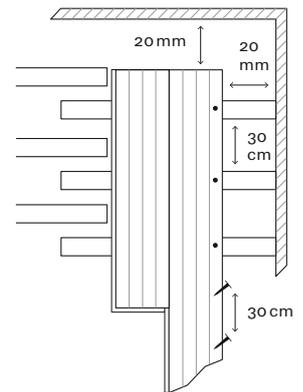
Ensure that there is good transverse ventilation below the planned BauBuche Flooring (e.g., by offset vertical beams). A surface cover above a crawl space made up of a polyethylene film at least 150 µm thick is essential to act as a moisture barrier.

Both plywood boards with a thickness of 16 or 19 mm as well as 20-mm-thick OSB boards are suitable as a subfloor. As far as possible, thinner materials should not be used as a subfloor.

Lay the subfloor boards as per the manufacturer's recommendations. Unless the board manufacturer recommends otherwise, the grain sides should be installed at a right angle to the wooden beam construction and secured every 15 cm to this construction using suitable nails. A corresponding distance should be maintained at the board ends and edges.



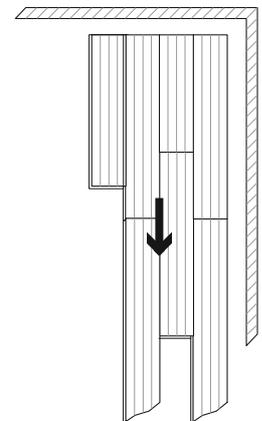
With a subfloor made of old boards, only use flat, dry and angular beams which are not wider than 15 cm. They are to be laid at right angles to the wooden beam construction. Expansion joints of 6 to 10 mm should be provided between the boards. Do not use groove and tongue boards. Each contact point should be secured with two 8d nails. All the joints should be located on the wooden beam construction. Mark the position of the wooden beams so that the flooring can be secured to these. Take care in applying the nails to ensure the boards stay in position. If the nails are not put in properly the flooring can end up squeaking.



3. THE ESSENTIALS FOR LAYING THE FLOORING

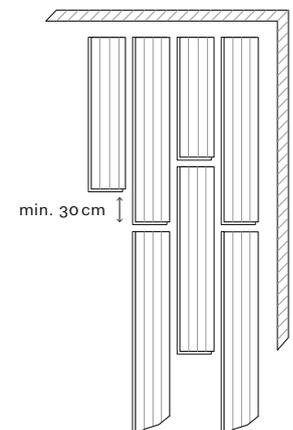
Laying direction

Always lay the BauBuche Flooring in the direction of the longest room/building dimension. If a hallway runs parallel to the longest room dimension, to start off draw a chalk line along the middle of the hallway and work from that point into the room. Use a parquet tongue to change the laying direction if the hallway is to be laid at a later date.



Preparing to lay the flooring

Arrange three BauBuche Flooring boards, edge to edge, so that the joints are offset, making sure to leave at least 30 cm between the end joints. Mix the boards from different packages in order to achieve a homogenous laying pattern. Offset the end joints of individual boards and in subsequent rows by at least 15 cm. Avoid H-joints.



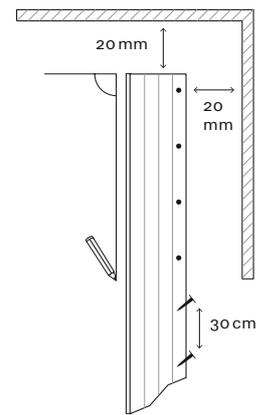
Push together the tongue and groove of each board and secure the tongue with a nail. Drive in all the nails. Once you have laid the first or second row, you can change from using a hammer to a soil nailing machine with serrated nails (38 mm or 44.5 mm).

Nail down the nails at the correct angle in the nail groove of the flooring. Position the boards of the next row by inserting the groove into the tongue of the already laid row. Now nail down each board at intervals of 20 cm and near to the end joints through the nail groove. Lay the flooring in the entire room, and just as with the first row, leave a gap of 20 mm to the opposite wall. Do not insert nails into the joints of the underfloor construction. If the room is more than 6 m wide, provide for an additional expansion joint of 20 mm every 3 m.

To allow for possible additional expansion, we recommend distributing spacers evenly over the flooring if the area to be laid is wider than 6 m and expansion is anticipated (depending on the expected expansion of the respective environment). In the case of adjacent joints, place a spacer on each side of the joint and every 30 cm along the length. It may not be necessary to use additional spacers in all areas.

Starting to lay the flooring

The exact positioning and straight alignment of the first row are very important. Lay the BauBuche Flooring board 20 mm away from the starting wall with the grooved side facing the wall and draw a dot on the underfloor on the edge of the board tongue. Do the same in both corners of the room and draw a line in chalk between the two dots. Nail down the first board with the tongue on this line. The gap between the board and wall is necessary to allow expansion and is subsequently hidden by the skirting boards. Lay the first row with the groove facing the wall and the tongue flush with the chalk line you drew at the start. Nail down the 8d nails at the ends of the boards at a distance of 20 mm from the wall and at every 30 cm. (The skirting board hides the nail heads). Nail down the other boards in the first row in the same way.



Skirting boards

Attach the skirting boards to the wall - and not to the flooring - once the entire floor has been laid.

- _ **Work from left to right.** BauBuche Flooring is easier to lay if you work from left to right.
- _ **Shorter lengths.** To achieve improved aesthetics, always use long deck boards in entrance areas and around doors. Use the shorter lengths or the remainder of cut boards from the previous row as the first piece in the subsequent row.
- _ **Changing the direction of BauBuche Flooring.** It is sometimes necessary to change the direction of the flooring at the entrance to a new room or hallway. To do this, connect the grooved sides using a special wedge-shaped insert (parquet tongue which is adhered into the groove). Nail down as usual.

