



BOEN

Bofelle®

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Installation instructions

Bofelle®
Glued & floating installation
5G Dry® Click connection

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General information

Product information

BOEN manufactures Bofelle® in line with the European wooden floor standards EN 14354 and EN 14342, for floors intended for use in dry indoor spaces.

Bofelle®

Structure: 3-layer

Dimensions: 9,6 × 181/209 × 2200 mm

Top layer: ca. 1,2 mm

Middle layer: 6,8 mm HDF

Sublayer: 1,6 mm spruce wood

Bevel: 2V bevel

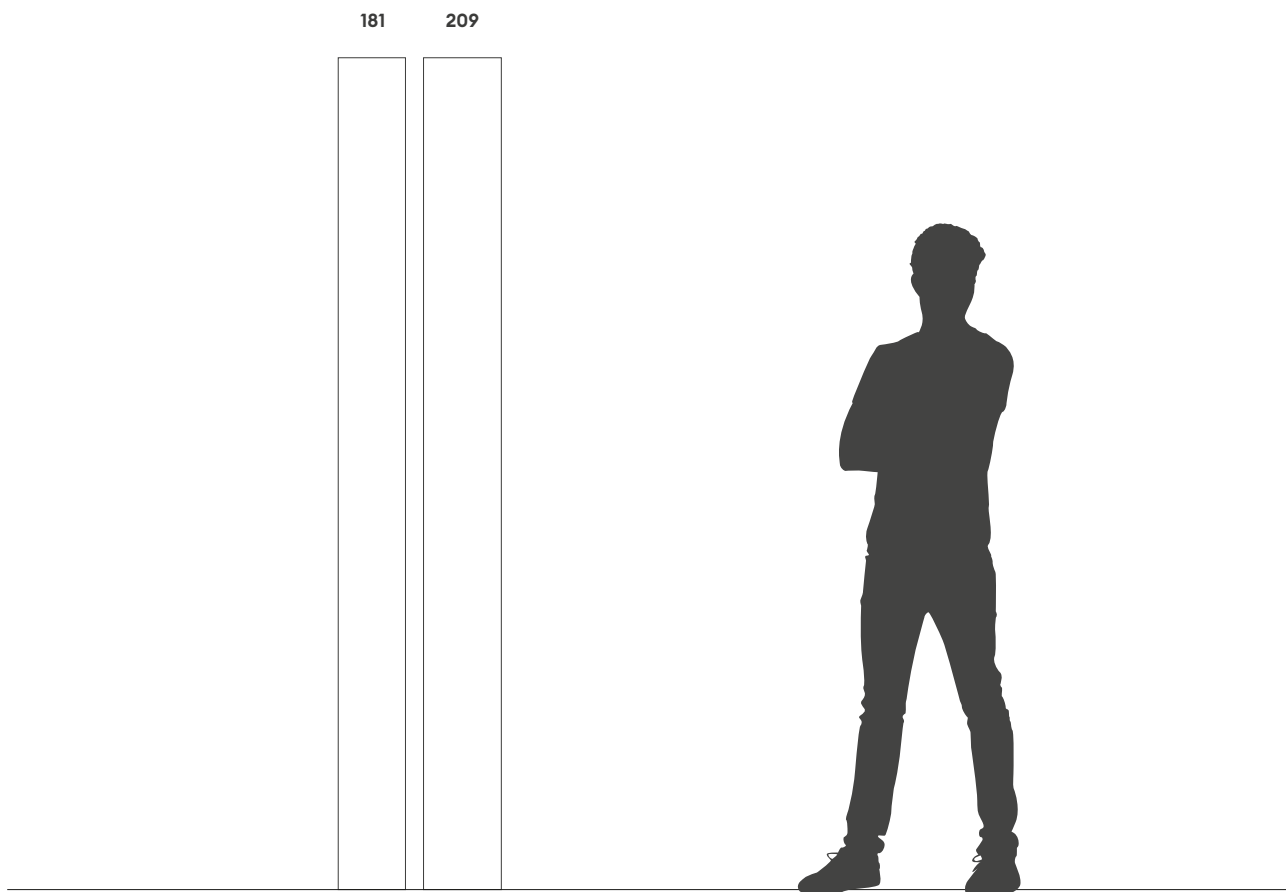
Connection: 5G Dry® Click, longitudinal and transversal

Package contents: Bofelle® 209: 6/2,76 m²

Bofelle® 181: 6/2,39 m²

Surface: brushed, deep brushed

Underfloor heating: very suitable



Storage recommendations

- The cardboard sleeve packages in PE film must be handled carefully to prevent damage.
- The packages must always be protected against moisture during transport and storage, and before handling.
- The sealed packages must be stored horizontally in absolutely dry rooms.
- For the purpose of acclimatisation, the wooden floor must be stored in the room in which it is to be laid for 48 hours prior to installation. Recommended storage temperature: +18 °C, 35 – 60 % RH.
- Only open the packages immediately before installation.

Quality check

Every wooden floor plank has been checked and graded one-by-one by our quality controllers. If there are still complaints relating to visual defects, it is important to report these prior to installation. Complaints submitted later will not be accepted.

Installed appearance

During installation, attention must be paid to the evenness of the wood grading. The more rustic the grading, the more packages must be opened to assemble an even grading pattern. During the installation, combine elements from multiple packages to achieve an optimum mix within the natural colour and grading spectrum.

Please note that the installer is responsible for the result of floor installation. **The installation must take place in accordance with the accepted technical regulations and in line with the applicable DIN standards.***

***DIN standards**

- DIN18365 „Flooring works“
- DIN18356 „Laying og parquet flooring“,
- country-specific standards
ÖNORM B5236, SIA253

Before installation

Preparing the construction site

Installing wooden floor planks requires the rooms to be dry and heated. All outer windows and doors must be installed, and all masonry and screed work must be completed long before the wooden floor installation starts. We recommend completing the tasks that have a negative effect on the dryness of the indoor climate (e.g. painting, tiling work) before the wooden floor is installed.

With too much indoor humidity, excessive moisture absorption can occur, resulting in swelling and dimension changes in the wooden floor planks. For this reason, make sure you keep the relative humidity below 75 % during the installation. Between 35 and 65 % RH is optimal. The indoor temperature should be at least 18 °C. The floor temperature should be approx. 18 – 22 °C if underfloor heating is present.

During the winter months, please take into account that the packages may cool down, for example, during longer transport. The material temperature must then be adjusted to the room temperature in the unopened package prior to installation. Installation is not possible if the material temperature is below 15 °C.

In general, and especially in new buildings, it is always advisable to install the wooden floor as the last work task at the construction site. If this is not possible, the prepared surface must be protected by covering it with paper, wool felt paper or another suitable material; however, never using a diffusionretarding film for that purpose.

Adhesive tape for attaching cover material should not be applied directly onto the surface of the wooden floor, as this can damage the surface treatment.

Subfloor requirements

BOEN wooden floor planks can be installed in a fashion on any surface that has been professionally produced and prepared in accordance with DIN/EN standards or the country-specific ÖNORM B 5236 and SIA 253 standards.

These include cement, anhydride, mastic asphalt and dry screed (mineral boards), as well as chipboards and plywood panels. The subfloor must be professionally checked before installation, in accordance with the applicable standards.

The subfloor must meet country-specific regulatory requirements for wooden floor installation (dry, even, solid, crack-free, clean, etc.). If one or more of these conditions are not met, appropriate pre-treatment procedures must be performed.

Standard flatness requirements must be paid particular attention to, as per DIN/ÖNORM 18202, Table 3, Row 4 (stricter requirements) or SIA 414/2.

Wooden floor planks cannot provide any height compensation, so deviations from flatness requirements can lead walking noises (creaking, cracking).

Deviations in flatness must be compensated for using appropriate fillers prior to installation. Here, we always recommend working with a manufacturer system of primer and filler. Existing elastic or textile floor coverings are not an appropriate subfloor and must be fully removed.

Max:

0.1 m = +/- 0.5 mm (1/64")
0.6 m = +/- 1.0 mm (3/64")
1.0 m = +/- 1.5 mm (1/16")
1.5 m = +/- 2.0 mm (5/64")

Installation on underfloor heating

BOEN wooden floor planks are very well-suited for installation on underfloor heating. If installing onto thin-layer electric heating systems, observe the BOEN technical data sheet.

Professional, full-area bonding is the best way to prevent possible occasional walking noises (cracking, crackling, creaking) on the wooden floor surface.

In very dry climatic conditions in winter, enlarged joints and cupping may occur. Humidifying the air and maintaining a healthy indoor climate (20 to 22 °C, with relative humidity of 35 to 45 % during the heating period) can counteract this effect.

The recommended threshold value for warm-water low-temperature underfloor heating, as per EN/DIN 1264, is 29 °C (27 °C and 80.6 °F for Nordic markets), whereby this temperature must not be exceeded even in the edge areas. All kinds of trapped heat caused by objects with full-surface contact (e.g. shelves, futons, beds or carpets) should be avoided.

In general, significantly lower surface temperatures are more advantageous and should be preferred for environmental and health reasons. These must be achieved through precise dimensioning and adjusted control settings of the heating system.

Surface cooling

If the surface heating system is also used for cooling, it must be ensured that there is no resulting build-up of condensate. If there is surface cooling, full-area bonding must always be used for installing BOEN wooden floor planks. In this case, please refer to the relevant BOEN technical data sheet or contact our application engineering team.

Suitability for installation and humidity

The residual humidity of the subfloor and its required level of readiness for installation must be tested using the latest equipment, in accordance with the DIN/SIA/ÖNORM standards.

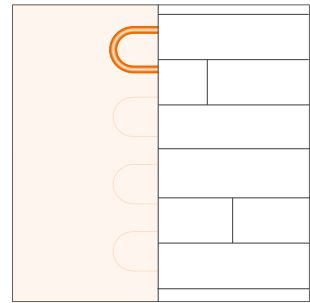
Screed moisture values as per DIN and ÖNORM standards

Cement screed: max. 2.0 CM% Anhydride screed: max. 0.5 CM%
(1.8 CM% on underfloor heating) (0.3 CM% on underfloor heating)

Please observe the currently effective country-specific standards.

Lower values should be generally aimed for. In the case of screed systems with chemical additives, such as accelerants, the corresponding manufacturer's instructions must be followed. Alternatively, the corresponding air humidity (KRL) can also be measured for the CM measurement, as per TKB data sheet 18 (max. 80 % for unheated screed, 75 % with underfloor heating).

Functional heating as well as heating to achieve readiness for installation must be performed in line with standard requirements and must be documented as proof in corresponding reports. When using screeds with chemical additives, the heating to achieve readiness for installation must be performed in accordance with the instructions from the respective manufacturer.

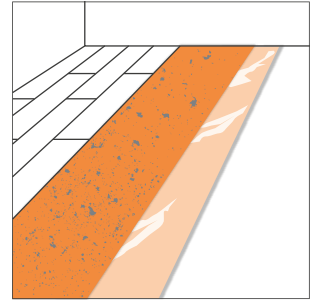


Full-area bonding & underfloor heating:
With electric underfloor heating, the surface temperature must not exceed 27 °C. With full-area bonding, the maximum power value of 60 to 100 W/m² additionally applies.

Floating installation on underfloor heating

In general, for mineral subfloors (regardless of their age) and for installation on underfloor heating, a tested age-resistant vapour barrier consisting, for example, of a 0.2 mm polyethylene film is an absolute requirement. This vapour barrier should always be laid close to the floor, with longitudinal overlaps of at least 30 cm, or joined, and then sealed at the joints with suitable adhesive tape. In wall areas, it should be laid in a trough shape or pulled up.

When using combination products that include impact sound insulation with a vapour barrier, they must be installed as per the manufacturer's instructions.



Suitable underlays (impact sound insulation)

In terms of its static and dynamic durability, the underlay sheet must meet the minimum requirements from the table on the right side. For floating installation of BOEN wooden floor planks, BOEN recommends for substrates made of wood or wood-based materials using **Viscoh Air**. For installation on substrates made of mineral-based materials, **Viscoh Air+** should be used.

Minimum requirements for floating installation

Dynamic load (DL)
EN13793, 250 000 Cycles
Compressive strength (CS)
EN826, 60kPa
Compressive creep (CC)
EN1606, 20kPa
Water vapour diffusion resistance (SD) ≥ 75 m

Installation on old timber subfloors

BOEN wooden floor planks allow for floating installation on plank floors or wooden composite board subfloors.

Preparation: Visual check of the general state. The floor must be even, stable and dry, and must have no cracks. Check the humidity of the wood using an electronic measuring device: The humidity of the wood must be no more than 10%. There must be certainty as to the stability of the subfloor. Creaking planks must be additionally fastened with screws. Areas with movement in them must be raised, or cavities under them must be filled with foam. There must be no moving elements anywhere in the subfloor.

Check for flatness tolerances: The requirements are the same as those applicable to installation on mineral screeds. Unevenness can cause loud creaking noises and must be corrected. Any present surface coatings must be removed by grinding in order to prevent the build-up of mould. Breathable impact sound insulation such as **Viscoh Air** must be used. Never use vapour barriers or similar products. The orientation of installation should be diagonal, or at least oblique to the orientation of the base.

Floating installation

General notes

BOEN wooden floor planks are approved for floating installation in areas with a maximum length of 12 m and width of 10 m. Installation requires a continuous floor slab with no construction joints (expansion joints). If such joints are present, they must be incorporated congruently into the top layer. Gaps with walls or other building components should be dimensioned according to the size of the given room and should be around 1.5 mm per metre of installation width, but at least 10 mm for rooms up to 6 × 6 m.

An expansion joint is required at doorways.

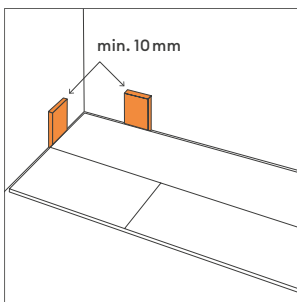
In narrow, long rooms, e.g. hallways, wooden floors should never be laid across the room, and should always be oriented lengthwise in the room.

It is not generally necessary to use a tapping block for light adjustment tapping. It must always, under all circumstances, be ensured that the top layer is not damaged. Always avoid any impacts with the top layer.

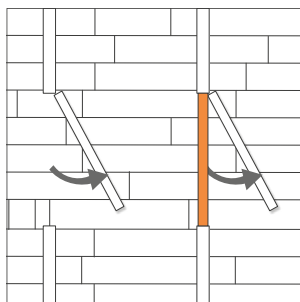
Furnishings, including door stops or skirtings, must never be attached to the wooden floor, as this prevents natural movement of the floor due to indoor climate fluctuations.

Fixed furnishings and heavy loads on the floor

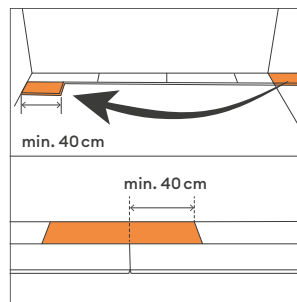
Heavy furnishings, such as fitted kitchens, kitchen islands, built-in cupboards or heating fireplaces, should not be installed onto a floating wooden floor, as these may prevent the wooden floor from moving due to their heavy weight.



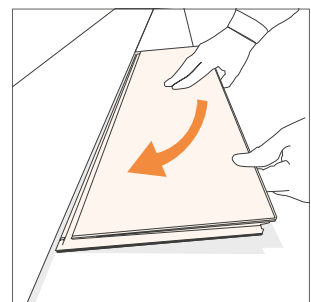
Gaps with walls or other building components should be dimensioned according to the size of the given room and should be around 1.5 mm per metre of installation width, but no less than 10 mm up to 6 × 6 m.



Around doorways, the floor must be separated with an **expansion joint**. This can be covered with suitable connecting profile pieces or sealed with elastic sealant.



The cut-off elements in a row of planks can be used as a starting element for the next row. The length of these should be at least 400 mm. There should be **sufficient offset** at the end joints between neighbouring plank rows. This should be at least 400 mm, so that the floor remains flat with room climate fluctuations.

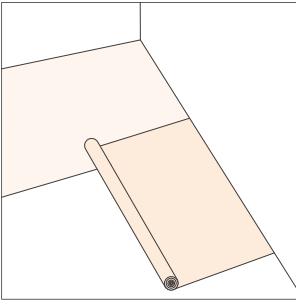


When reverse installation is required, the elements with the groove are clicked into the element with the tongue. For this, the element must be lifted and slid underneath as shown. The work must be carried out from right to left.

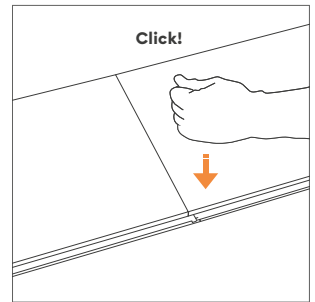
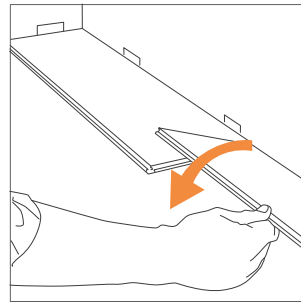
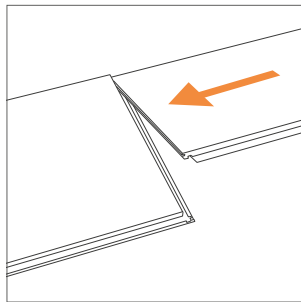
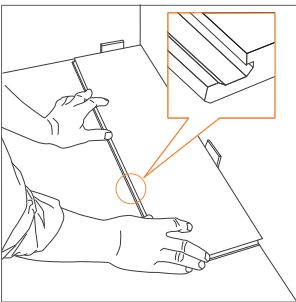
Continuation of Floating installation

Installation steps

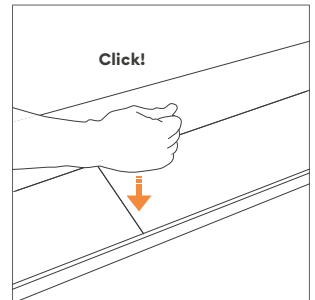
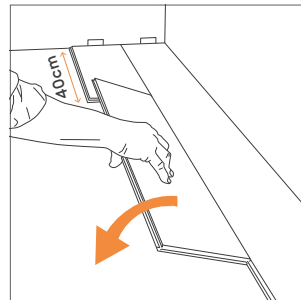
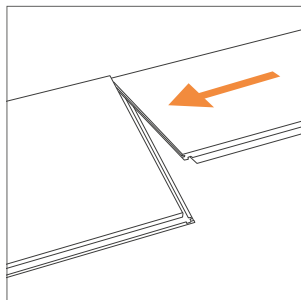
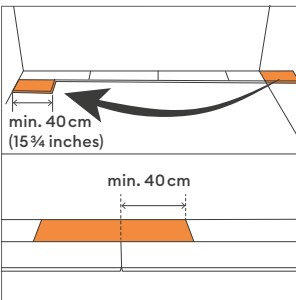
Substrate



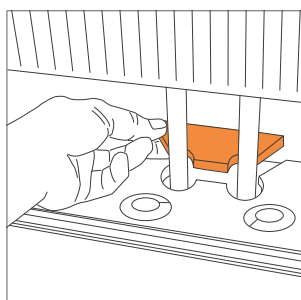
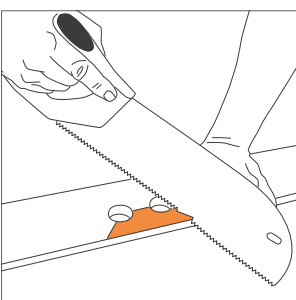
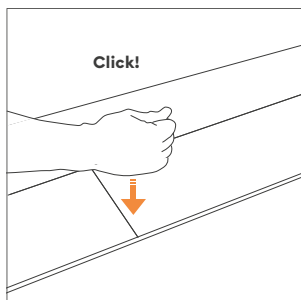
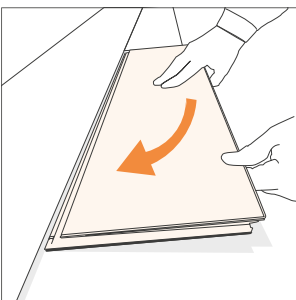
First row (from left to right)



Further rows (from left to right)



Reverse installation (from right to left)



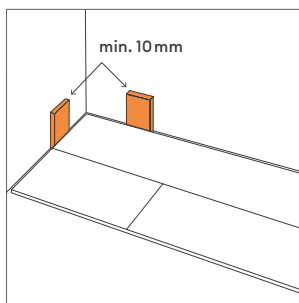
Glued installation

General notes

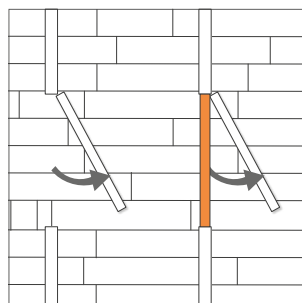
If full-area bonding is used on BOEN wooden floor planks, a hard-elastic adhesive must be applied to the entirety of their area for the bonding. Expansion (movement) joints must be included congruently in the top layer.

In narrow, long rooms, e.g. hallways, wooden floor planks should never be laid across the room, and should always be oriented lengthwise in the room.

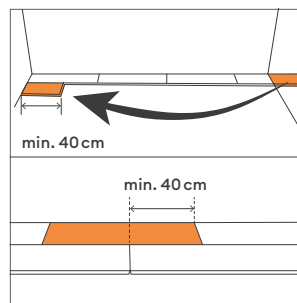
It is not generally necessary to use a tapping block for light adjustment tapping. It must always, under all circumstances, be ensured that the top layer is not damaged. Always avoid any impacts with the top layer.



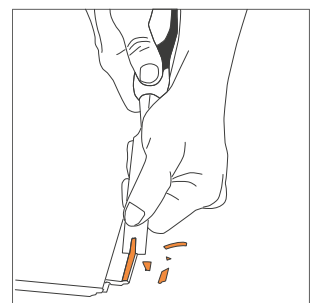
Gaps with walls or other building components should be dimensioned according to the size of the given room and should be around 1.5 mm per metre of installation width, but no less than 10 mm up to 6 × 6 m.



Around doorways, the floor must be separated with an **expansion joint**. This can be covered with suitable connecting profile pieces or sealed with elastic sealant.



The cut-off elements in a row of planks can be used as a starting element for the next row. The length of these should be at least 400 mm. There should be **sufficient offset** at the end joints between neighbouring plank rows. This should be at least 400 mm, so that the floor remains flat with room climate fluctuations.



In certain cases, e.g. if installation in reverse direction is required, the element can simply be slid in by **removing the tongue from the groove**.

Glued-down installation

BOEN wooden floor planks are full-area bonded, with no adhesive being applied in the joint profile. The selection of the type of adhesive generally depends on the subfloor and on the conditions at the construction site. Only parquet adhesives may be used. The adhesive is applied using a toothed spatula. Depending on the adhesive type, this guarantees that a proper amount of adhesive is applied. The adhesive must be applied evenly so that there are no negative effects for the bonding. The manufacturer's instructions concerning the application of the adhesive included in the corresponding technical data sheets must be observed as strictly as possible overall.

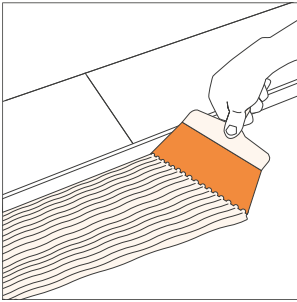
Pre-apply only as much adhesive as will be sufficient for the adhesive's exposure time. Never apply too much adhesive (e.g. to compensate for unevenness). Marking additional reference lines is recommended for exact pre-application.

The wooden floorboards are manually angled into the longitudinal profile and pressed into the adhesive bed. Do not contaminate the surface of the wooden floor elements with parquet adhesive. Any adhesive stains on the surface must be immediately removed using appropriate cleaning agents.

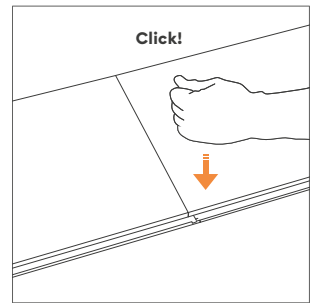
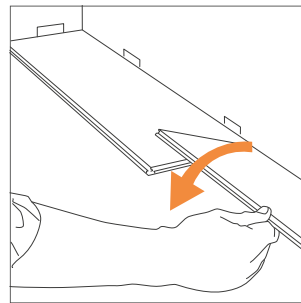
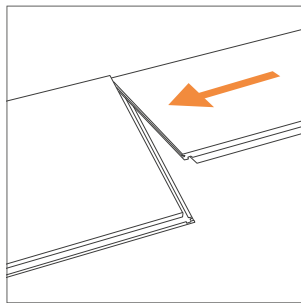
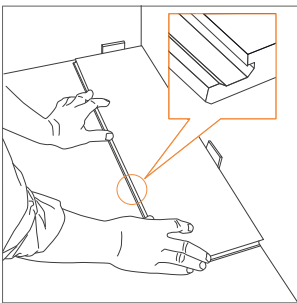
Wedges must be used to maintain the required wall gap. After installation, they must be removed, so that the wooden floor can properly adapt to the room climate and expand accordingly. Pressure and/or weight must be applied to the edge areas with particular care, because the screed is often uneven there. BOEN wooden floor planks should be walked on as little as possible for the first few hours after installation

Installation steps

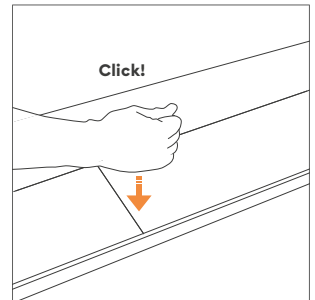
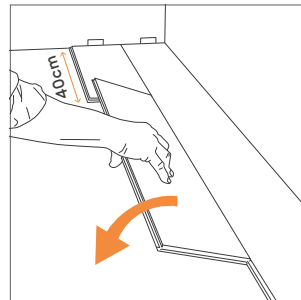
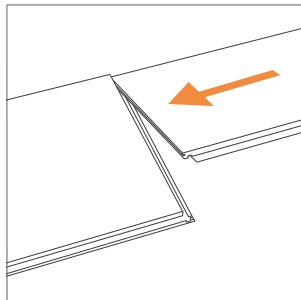
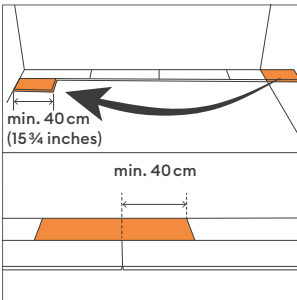
Substrate



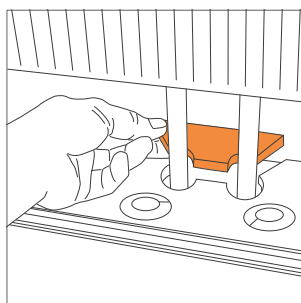
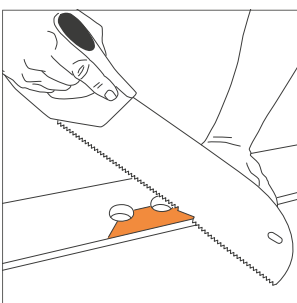
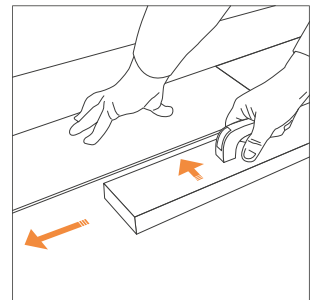
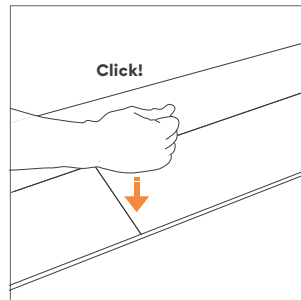
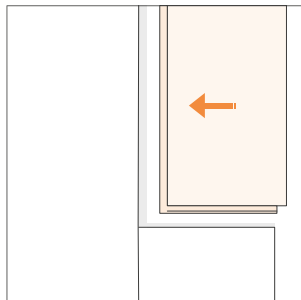
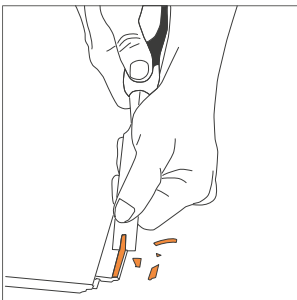
First row (from left to right)



Further rows (from left to right)



Reverse installation (from right to left)

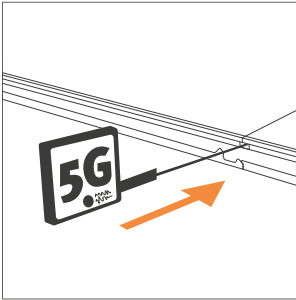


Disassembly Steps

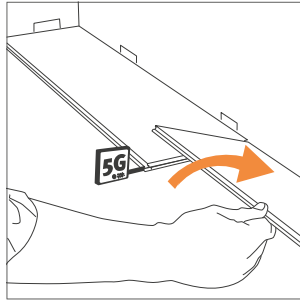
Disassembly

If you need to remove a fully glued wooden floor plank, this can only be done before the adhesive sets.

Dismantling a single board:

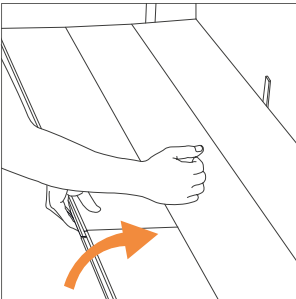


Fully insert the unlocking pin

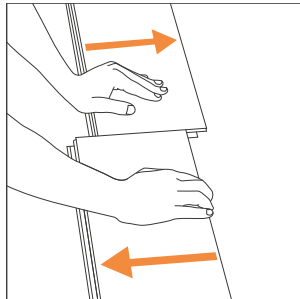


Lift the board and remove it

Dismantling the entire row of boards:



Unlock the entire row of boards and lift it upwards.



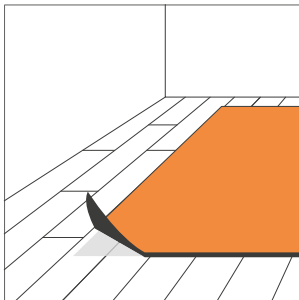
The wooden floorboards can then be slid apart from each other while lying flat. Do not lift the boards, as this may damage the cross profile.

After installation

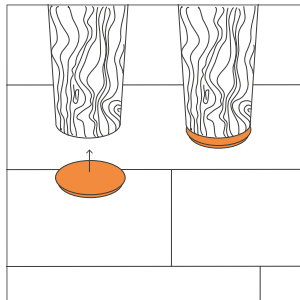
General notes

Wood is a natural product that can have colour and structure differences, which are due how it grows. Sunlight leads to a natural change in the colour of the wood (either darkening or yellowing). These colour changes can also partially occur with high exposure to light, e.g. with terrace windows. This phenomenon is particularly pronounced in certain buildings, due to the use of floor-to-ceiling windows. Please make sure that proper temperature is maintained after installation, with a constant room climate (see 'Installation on underfloor heating').

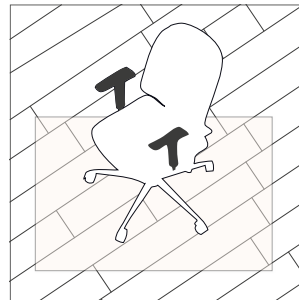
Tips for preserving value



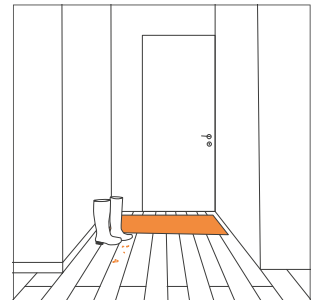
ATTENTION! Carpet runners and backing placed on the wooden floor, especially with insulating underlays (plastic, rubber, etc.), can cause heat build-up and discoloration. Be sure to use plasticiser-free products!



Felt gliders under furniture, table and chair legs, etc., will prevent unnecessary scratches and impressions on the wooden floor surface. They must be occasionally checked and, if necessary, cleaned or replaced.



Areas with desk chairs should be protected using appropriate polycarbonate **protective floor mats**.



This means that the **cleaning-off areas** and dirt traps should be larger in areas that see frequent use.

Cleaning & Care

The surface of our wooden floor is lacquered with MattPro or oiled with OiledPro.

- The MattPro lacquering we use is resistant to UV light, sturdy and very durable.
- Our OiledPro oiled surfaces harden through oxidation. The oil gives the surface a discreet silk-matt gloss and makes sure that the surface repels water and is not susceptible to dirt.
- Oiled floors require more maintenance than lacquered floors.
- Depending on the level of use, wooden floors undergo natural wear.
- After installation and prior to first use, you should perform the initial treatment of the oiled wooden floor using BOEN's care products.

We recommend our specialised cleaning and care products for MattPro and OiledPro wooden floors (see Bofelle® care and maintenance manual).