



BOEN

Installation instructions

2-layer parquet
Full-surface bonding
Tongue-and-groove joint

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General information

Product information

BOEN manufactures its parquet floors in line with the European parquet standards EN13489 and EN14342, intended for use indoors.

Full-surface bonding is a very good option for installing BOEN 2-layer parquet elements, while floating installation is not possible.

1 Prestige

Structure: 2-layer

Dimensions: 10 × 70 × 470 mm

Top layer: 3.5 mm

Sublayer: 6.5 mm spruce wood

Bevel: none

Connection: Tongue-and-groove profile

Package contents: 40 left-hand and 40 right-hand strips

Surface: sanded

Underfloor heating: very suitable

2 Herringbone T/G 10.5 × 137

Structure: 2-layer

Dimensions: 10.5 × 137 × 790 mm

Top layer: ca. 3.5 mm

Sublayer: 7.0 mm spruce wood

Bevel: on all four sides

Connection: Tongue-and-groove profile

Package contents: 15 left-hand and 15 right-hand strips

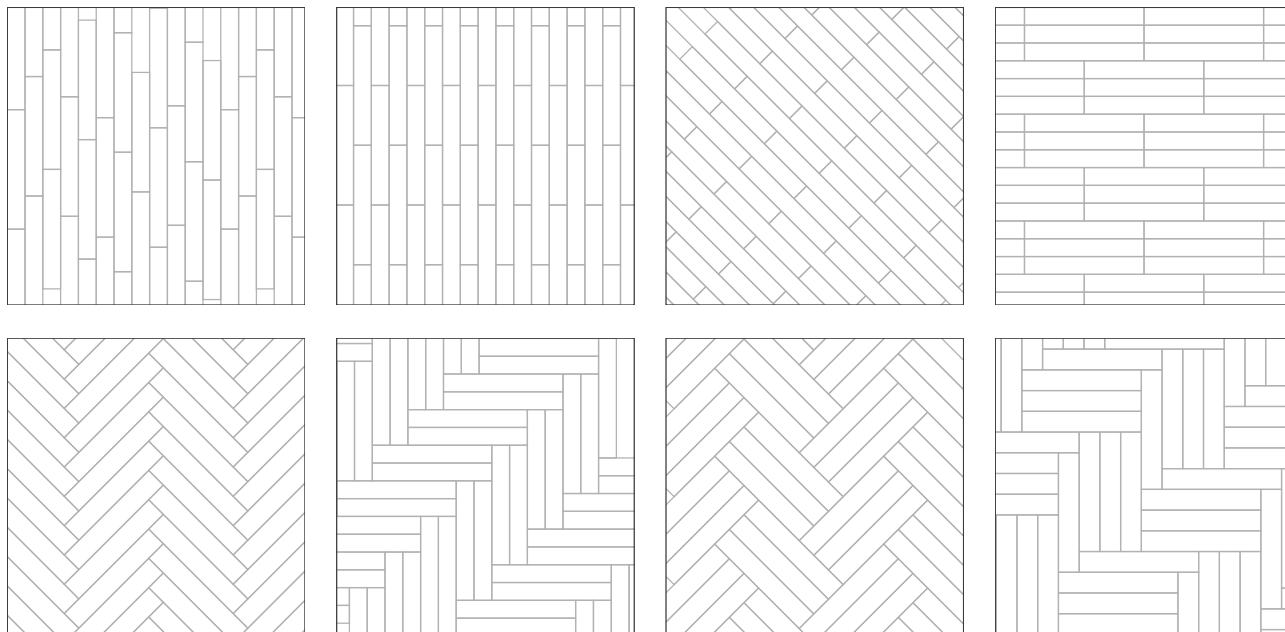
Surface: brushed

Underfloor heating: very suitable



Design options

Our 2-layer Prestige and Herringbone T/G 10.5×137 strips open up a large variety of installation and design options. Whether you prefer shipdeck or brickbond patterns, regular or irregular layout, classic herringbone with a single or multiple patterns, installation in parallel or diagonally to the wall, all of this is possible. In calculating the quantity of the material, add approximately 10 % for cuttings.



Storage recommendations

- Depending on the format, the elements of the parquet are packaged in a cardboard box and sealed in diffusion-inhibiting PE film.
- The packages must be treated carefully to avoid damage.
- The packages must always be protected against moisture during transport and storage, and prior to laying.
- The sealed packages must be stored horizontally in completely dry rooms.
- The parquet must be stored in the room where it is to be laid for 48 hours prior to installation for the purpose of acclimatisation.
- Recommended storage temperature: +18°C, 35 – 60 % RH.
- Only open the packages immediately before installation.

Quality check

Every parquet element 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. Combine elements from different packages to achieve an optimum mix within the natural colour and grading spectrum. It must be ensured that pieces from multiple packages are used for installation at the same time.

Please note that the result of floor installation is the responsibility of the installer. The installation should be performed following accepted technical rules, in line with DIN standards*

*DIN standards

- DIN18365 „Flooring works“
- DIN18356 „Laying of parquet flooring“,
- country-specific standards
ÖNORM B5236, SIA 253

Before installation

Preparing the construction site

To install Boen 2-layer parquet, it must be ensured that the rooms are dry and heated. All outer windows and doors must be installed, and all masonry and screed work must be completed long before parquet 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 parquet is installed.

Excessive indoor humidity can lead to excessive moisture absorption and result in swelling and dimensional changes to the parquet planks. Therefore, make sure the relative humidity is kept below 75 % during installation, optimally between 35 and 65 % RH. The indoor air temperature should be at least 18 °C. If underfloor heating is present, the floor temperature should be approx. 18 – 22 °C.

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

In general, and especially in new buildings, it is always advisable to install parquet as the last task at the construction site. If this is not possible, the finished surface must be covered with paper, wool felt paper, or another suitable covering material. However, diffusion-retarding film must never be used for that purpose.

Adhesive tape for fastening covering materials must not be attached directly to the surface of the parquet, as this can result in damage to the surface treatment.

Subfloor requirements

BOEN parquet planks can be installed in an adhesive fashion on any surface that has been professionally produced and prepared in accordance with DIN/EN standards or the country-specific Ö-NORM B 5236 and SIA 253 standards. These surfaces include cement, anhydrite, mastic asphalt and dry screed (mineral board), as well as particle and plywood boards. The subfloor must be professionally checked before installation, in accordance with applicable standards.

The subfloor must meet common requirements for parquet 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. Deviations from these can lead to hollow areas and noises (creaking, cracking) when walking, since parquet elements cannot provide any height compensation.

Deviations in flatness must be compensated for using appropriate fillers prior to installation. In doing so, we always recommend working with a manufacturer system consisting of a primer, filler and parquet adhesive. Elastic or textile floor coverings are not an appropriate sublayer, and these must be removed without leaving any residue.

Installation on underfloor heating

Full-surface bonding is a very good option for installing BOEN 2-layer parquet elements on top of underfloor heating.

For low-temperature hot-water underfloor heating, EN/DIN1264 recommends 29°C (for Nordic markets, 27°C / 80.6°F) as a maximum threshold value for surface temperature, whereby this temperature must not be exceeded even near the edges.

The maximum surface temperature of 27°C applies to electric underfloor heating, and the heat output of the heating system should not exceed 60–110 W/m².

All kinds of trapped heat caused by objects with full-surface contact (e.g. shelves, futon 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.

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

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, BOEN parquet planks must always be installed with full-surface bonding. In this case, contact our application technicians.

Suitability for installation and humidity

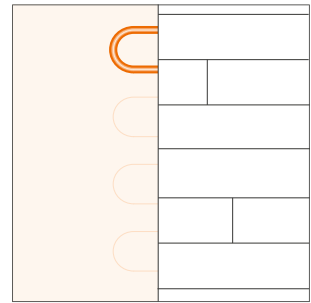
The residual humidity of the subfloor and its suitability for installation must be tested using the latest equipment, in accordance with the DIN/SIA/Ö-NORM standards.

Screed moisture values

Cement screed max. 2,0 CM %	Anhydride screed max. 0,5 CM %
(1,8 CM % on underfloor heating)	(0,3 CM % on underfloor heating)

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 (according to the work instructions in TKB Data Sheet 18, no more than 75%).

Functional heating as well as heating to achieve suitability 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 suitability for installation must be performed in accordance with the instructions from the respective manufacturer.



Installation

General notes

There are no overall maximum flooring area limits for the full-surface bonding of BOEN 2-layer parquet. Surfaces of more than 100 m² are theoretically possible. Installation requires a continuous floor slab without construction joints (expansion joints). If such joints are present, they must be included identically into the floor finish.

Parquet in narrow, long rooms, e.g. corridors, should never be laid transversely; longitudinal orientation should always be used instead.

There is generally little need to use a tapping block for light adjustment tapping. It must always be ensured that the top layer is not damaged. Hits to the top layer must be completely avoided.

Adhesive installation

BOEN 2-layer parquet planks are full-surface bonded, without adhesive being applied in the joint profile for the longitudinal edge of the plank.

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 instructions in the technical data sheets for the respective adhesives pertaining to their application must be generally observed as strictly as possible.

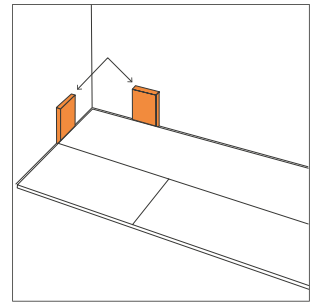
Only pre-apply adhesive to the surfaces that can be bonded within the open time for the adhesive.

Do not apply too much adhesive (e.g. to compensate for unevenness). Marking additional reference lines is recommended for exact pre-application.

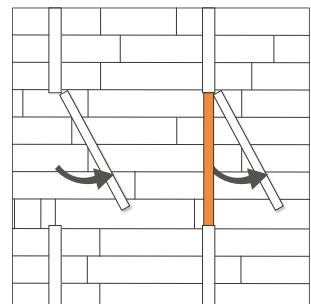
The parquet elements are inserted into the longitudinal profile by hand and slid into the adhesive bed.

Do not contaminate the surface of the parquet elements with parquet adhesive. Any adhesive residues on the surface must be immediately removed with appropriate cleaning agents.

Wedges must be used to maintain the required wall gap. These must be removed after installation, so the parquet floor can properly adapt to the room climate and expand accordingly.



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 in total.



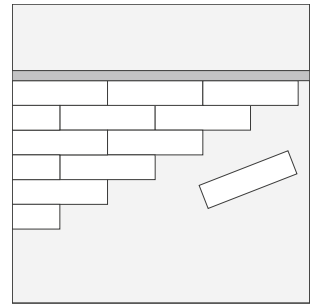
Around doorways, the floor must be separated with an **expansion joint**. This can be covered with suitable connecting profile pieces or sealed with elastic sealant.

Laying patterns, division of surfaces and reference lines

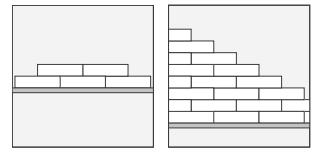
The division of surfaces and setting of reference lines to start the installation depends on the preferred laying pattern. For regular and/or irregular shipdeck patterns, it is visually better to lay the strips in such a way that their long sides align with the main direction of light. With these laying patterns, the installation starts near one of the long-side walls. If other laying patterns are preferred, the installation begins in the centre of the room, i.e. the reference line must be drawn diagonally, longitudinally or transversally relative to the room. A clearance of 8 to 10 mm from all fixed structural elements must be kept. Later, this clearance should be covered with skirting boards and/or filled with elastic, silicone-free sealing material.

Regular and irregular brickbond pattern installation

Use a straight edge or a chalk line to mark the reference line at a distance of 4 to 6 strip widths, plus 8 to 10 mm wall clearance from the chosen longitudinal wall, and provide a fixed limit stop using square timber pieces, battens, etc. The installation into the room begins from this location. Once this area is completed, remove the limit stop. The installation may continue only once the parquet sets in the adhesive bed (observe the curing times indicated by the adhesive manufacturer).



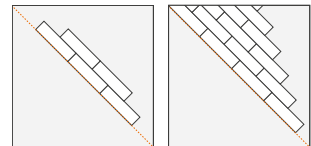
In order to avoid the so-called arc-thrust effect in larger rooms (i.e. creating hollow joints), we recommend laying the strips **in a ladder fashion**.



Regular and irregular brickbond pattern

Regular and irregular diagonal brickbond pattern installation

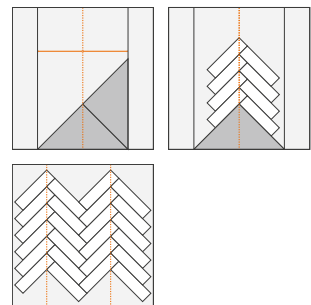
With regular and irregular diagonal brickbond patterns, the installation must start in the centre of the room. Once the diagonals of the room are set, a fixed limit stop made out of square timber pieces, battens, etc., must be placed along the diagonal line. Once the first half of the room is fully laid, remove the limit stop. Once the parquet firmly sets in the adhesive bed (observe the curing times indicated by the adhesive manufacturer), it can be laid in the second half of the room. It is generally recommended, both with longitudinal and diagonal patterns, to lay strips in a ladder fashion in order to eliminate seams in the floor.



Diagonal installation, starting in the middle of the room

Herringbone pattern installation

When laying a herringbone pattern, first put a few strips together in a braided manner, according to the pattern. Then draw a chalk line offset half a strip's width from the room centre (to mark the installation line) so that it aligns with the peaks of the braid. so that it lies straight in the room. Once the first braid is placed into the adhesive bed, let the adhesive set firmly (observe the curing times indicated by the adhesive manufacturer) before continuing with the installation. We recommend repeating the process of marking the chalk line during this time to check the accuracy of its position.



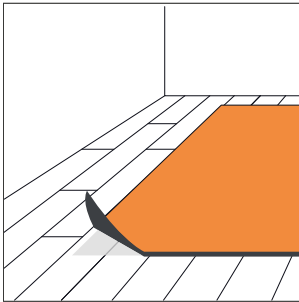
Herringbone pattern installation

After installation

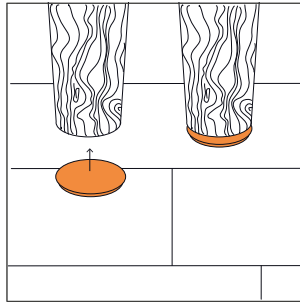
General notes

Wood is a natural product that can have colour and structural differences, which arise during its growth. Sunlight leads to natural change in the colour of the wood (either darkening or lightening). These colour changes can also partially occur in the case of intense exposure to light, e.g. with terrace windows. This phenomenon is especially aggravated by the use of floor-to-ceiling windows in construction. Please make sure that proper temperature is maintained after the installation, with a constant room climate (see Installation on underfloor heating).

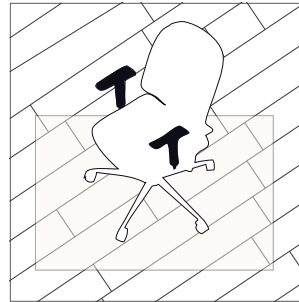
Maintenance tips



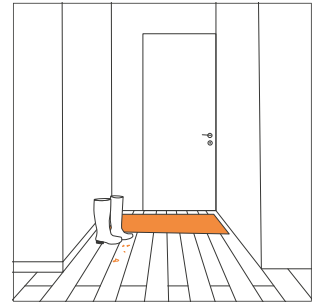
ATTENTION! Carpet runners and carpet backing placed on the parquet, especially with insulating underlays (made of plastic, rubber, etc.), can cause heat build-up and lead to discoloration. Be sure to use plasticiser-free products!



Felt gliders under furniture, table and chair legs, and under similar objects prevent unnecessary scratches and dents in the parquet 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**.



In areas that see frequent use, we recommend having larger **cleaning-off zones** and dirt traps accordingly.

Cleaning & Care

The surface of our parquet is lacquered with Live Matt, Live Matt Plus or Live Pure, or oiled with Live Natural.

- The Live Matt, Live Matt Plus and Live Pure lacquers we use are resistant to UV light, sturdy and very durable.
- Our oiled surfaces harden through oxidation. The oil gives the surface a discreet silk-matt gloss and ensures that it is water-repellent and not sensitive to dirt.
- Oiled floors require more maintenance than lacquered floors.
- Depending on the level of use, parquet undergoes natural wear.
- After installation, you should perform the initial treatment of the parquet floor with BOEN's care products before its first use.

We recommend our specialised cleaning and care products for lacquered and oiled parquet (see the BOEN care and maintenance instructions).



See our brochure for more information about cleaning and care of parquet floors.