

Installation Guide

Castleplank



An exclusive engineered floor prepared for the red carpet

HØRNING Castleplank is an extraordinarily strong, engineered special flooring made of carefully selected materials.

Castleplank comes in ash, Douglas fir, oak and smoked oak, untreated, oiled or varnished.

Castleplank comes with tongue and groove on 4 sides and are generally polished and untreated. Further treatment such as varnishing, oiling, brushing and smoking are available on request.

Castleplank comes with sharp edges or with micro bevel in the longitudinal direction or in both the longitudinal direction and at the ends.

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Castleplank is available in oak with different surface finishes and with a wear layer of up to 5.5 mm and a core made of solid exterior quality birch/birch plywood. The thickness is 20 or 15 mm in widths from 130-300 mm and up to 2.4 meters long.

Receipt of goods and quality control

By the delivery of the material the building must be dry and free of construction humidity, such as bricklaying and painting. Never have the floor delivered until the building is sealed, dry and warm, and the humidity levels are under control. Carry the material inside immediately after delivery, do not leave them outside under any circumstances.

Carry the floor into the room where it is to be installed – and stored before installation. Make sure to carry out a detailed quality check of the flooring as well as of other related materials that you have received before signing the freight note. Any complaints regarding visible defects must be made in writing before the floor is installed and no later than 8 days after receipt. A floor which has been installed has also automatically been approved.

Contractions and expansions

The moisture content in wood floors will always seek to adjust in equal weight with air relative humidity (RH) and temperature. The tree absorbs and releases moisture by changes in the relative humidity. It happens in all the wooden floors, but the movement wooden floors in form of contractions or expansions (swelling) depends of product type, wood species, thickness and surface treatment.

In practice, it is often necessary to know how much a floor-board or an entire floor contracts or expands. A commonly and internationally used realistic average used wooden floors of oak, douglas, beech, oak, ash, bilinga and walnut, a mean of 2.2 mm contraction or expansion per meter meters can in in practice be calculated for each 1% change in the humidity of the wooden floor.

Preparations

The temperature in the rooms must be constantly between 18-24°C and the relative humidity (R.H.) must always be 35–65% before, during and after installation. A relative humidity (R.H.) of less than 35% may result in cracks and damage to the wooden floors, which are not covered by the warranty.

The building must be closed and heating must have been installed and be in operation. The residual humidity in concrete floors must not exceed 85% (R.H.).

Any and all work, which may expose the building to humidity must have been finished before you start installing wooden floors, such as bricklaying and painting.

Wooden floors and any possible glue must be acclimatized in their unopened packaging in the rooms where they are to be installed for a minimum of 48 hours or until the floor's temperature is the same as the room temperature, which may take more than 48 hours.

Underlying sub-floors

The underlying sub-floor must be dry, firm, level, ready to be glued and thoroughly clean. In order to test the solidity of the underlying sub-floor, you may apply the scratch and pull test. HØRNING recommends that you perform an adherence test in the form of a pull test, which must show a solidity of a minimum of 1.5 MPA.

Use a two-meter straight-edge and check the entire area thoroughly. If you find any unevenness of more than 2 mm, the underlying sub-floor must be primed and filled.

The residual humidity in the concrete underlying sub-floor must be no more than 85% (R.H.).

The underlying sub-floor must be damp proof and both rising and penetrating moisture must be prevented. In case of uncertainty or if the residual humidity in the underlying sub-floor exceeds 85% (R.H.), the floor must be fitted with a suitable moisture barrier. This must be done in accordance with the manufacturer's instructions.

In the case of fully glued wooden floors, you may use 'HØRNING MS Flexlim' glue for underlying sub-floors with a residual humidity of up to 85% (R.H.) if using 1 liter per m² or a similar type of glue, which meets the requirements.

Please note that 'HØRNING MS Flexlim' is not a moisture barrier.

As for sub-floors you may use floor chip-board or plywood, which must be of at least the same thickness as the wooden floor.

Under-floor heating

Today most under-floor heating systems are of such a character that they may be used with wooden floors. The system's supply pipe must be controlled automatically and it must provide an even heat distribution across the entire floor area.

The under-floor heating system must be closed down completely at least one week prior to the installation of the wooden floors. The room temperature must be 18-24°C before, during and after installation.

The under-floor heating system may be re-opened carefully and gradually no earlier than 72 hours after the wooden floor has been installed and in such a manner that the temperature is increased by a maximum of 3 degrees centigrade each day.

The floor's surface temperature must never exceed 27°C – not even where it is covered by carpets or furniture. Higher temperatures result in an increased risk of damage to the wooden floor as a consequence of larger movements in the wood in the shape of contraction and expansion, which are not covered by the warranty.

Distances to walls etc.

Normally the minimum distance between wooden floors and walls, pipes, stairs, permanent fixtures etc. must be at least 10 mm. However, the minimum distance should be at least

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1.5 mm per one metre of flooring. Please use distance floor wedges and leave them in until the glue is completely dry.

Wooden floors expand and shrink depending on the climate in the room. In certain instances, it is necessary to use an expansion joint. This applies, for instance, in the following circumstances:

- By doors and permanent walls
- If you are installing a floor covering through several rooms
- In case of climatic deviations across the floor area, for instance, if there is only under-floor heating in parts of the floor area
- If there are expansion gaps in the underlying sub-floor.

Some projects may require an individual specification of distances. Contact HØRNING for further information.

Expansion joints and movement gaps are to be filled with permanently elastic material, such as HØRNING cork expansion strips, joint filler or by using a special profile. Please always follow the manufacturer's instructions.

Fully gluing is done by means of 'HØRNING MS Flexlim'

Two different types of adhesive trowel may be used:

- **Residual humidity of up to 80% in a concrete underlying sub-floor**

In this case a special adhesive trowel should be used to glue (use 1 liter per square meter) the planks to the underlying sub-floor in a fully covering manner, so that the glue will work as a moisture retardant barrier.

- **Residual humidity of up to 65% in a concrete underlying sub-floor**

In this case you should apply glue to the underlying sub-floor by means of an adhesive trowel 23/48 (use 0.6-0.8 liter per square meter = 1,000-1,400 grams per square meter. NB: 1 liter = approx. 1.7 kilograms).

Installation

If the installation is ongoing for several days, it is important to close any opened packages, so that they are fully sealed until the installation continues.

As a general guideline we strongly advise for our Castleplanks to be fully glued to the subfloor.

Our Castleplanks can in special circumstances be installed floating. Kindly contact HØRNING for further information.

The Castleplanks, in minimum 20 mm thickness, can in special circumstances be installed on to joists. Kindly contact HØRNING for further information.

HØRNING Castleplanks are delivered with tongue and groove on all four sides. All four joints must be glued together if the floor is installed floating. Please make sure you use a white PVAc D3 adhesive. The adhesive must be laid on top of the tongue on the side and end joint.

Cut short the door frames in order for the planks to go under them.

It is recommended that you install a guide panel to the underlying sub-floor so that the rows of planks do not shift in the wet glue while installing the floor.

Mix up the rows of planks from several bundles in order for your floor to achieve a harmonious appearance. Then push down the rows of planks into the wet glue and push them together carefully without any glue appearing between the rows of planks, as this may result in unlike gaps because the rows of planks will then be prevented from moving individually. We recommend that you do not glue larger areas than what you can cover within approx. 15 minutes. The rows of planks must be put down in variable, staggered jointing.

If you get glue on the surface, the wet glue should be removed immediately. Ensure that any and all glue is removed from the surface.

Please ensure at all times that you spread sufficient glue and that the adhesive trowel is vertical. If you use too little glue, the boards will not stick properly to the sub-floor. Put sandbags on pressure distributing boards (especially along the edges/walls) until the glue has dried.

The expansion joints are to be covered by the skirting boards or special profiles.

After installation

Please do not walk on the floor while the glue is drying. Consequently, please do not use the floor until at least 48 hours after the installation. Remove the distance floor wedges once the glue has dried completely.

You may not sand or polish any untreated floors until at least two days after they have been installed depending on the climatic conditions in the room. Make sure that the glue is completely dry before sanding or polishing.

Any oiling or lacquering of the floors after they have been installed and the glue is completely dry must be carried out in accordance with the manufacturer's instructions and you must ensure that the oil or the lacquer is completely dry before the floor is covered up and before you start walking on it.

For the best result, office chair mats should be laid out under office chairs. All chairs and table legs and other items that can scratch or mark marks on the surface should be fitted with felt. Remember to check the felt continuously and replace them if they get worn. Keep in mind that latex-containing pads, mats and black rubber wheels may leave marks on the surface of the wood floor.

Please always ensure that you protect the floor properly with floor felt or a similarly appropriate type of material. If any further building work is carried out in the room after the floor has been installed and possibly surface treated, the floor must be particularly well protected against dirt and pressure marks.

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HØRNING recommends that floors supplied with oil or hard wax oil are always treated with maintenance oil after installation in order to achieve the best possible result. Oiled floors must not be washed or be subjected to water until at least 14 days after the floor has been installed or the latest oil treatment has been completed, as the oil dries due to airing. Always use small amounts of water!

Lacquered floors must be washed with a neutral washing preparation and a firmly wrung cloth.

Please always clean the floor thoroughly before starting to use it.

Avoid any sort of dirt. Use mats by the entrance doors etc.

Avoid damage to your wooden floor: Put felt or soft caps on table legs and furniture, use chair mats under office chairs etc.

Hoover and clean the floor regularly once you have started using it.

The installation guide is based on long-term experiences and accommodates the most normal conditions in most building constructions.

Hørning Parket accepts no legal responsibility in connection with this indicative information. If you are unsure how to install the floor, please contact Hørning Parket.