

Installation manual for glue-free engineered wooden floors

**READ THIS MANUAL CAREFULLY BEFORE INSTALLING THE FLOOR.
NON-COMPLIANCE WITH THE INSTRUCTIONS PROVIDED FOR IN THIS MANUAL SHALL RESULT IN THE LOSS OF WARRANTY.**

Important!

Engineered wooden floors must be stored horizontally in a dry place and on a flat base. The flooring shall not be stored vertically or leant on edges or against other objects. **Prior to installation, the floor must be stored in a factory sealed package for 48 hours in room temperature of about 18°C.** Before and during the installation of the floor, the ambient temperature must be at least 18°C. The manufacturer recommends that the floor to be laid as a floating floor, i.e. the boards can be fixed permanently to the sub-floor but under no circumstances should the boards be in contact with vertical elements of the building. In newly built houses, floor installation shall be carried out at the end of the finishing works. All other installation/finishing works, such as painting, window installation should be performed earlier and the room should be dried (door installation can be performed after the installation of the floor if the assembly system requires so).

Sub-floor (fig. 1)

Engineered wooden floors may be installed on various hard sub-floors, including: concrete, anhydrite, old wood floor, ceramic tiles, PVC, etc. Soft sub-floor coverings, such as all types of carpets, must be removed. The sub-floor should be flat, smooth and dry, and should not contain any movable elements (not chipping). Unevenness of the floor cannot exceed +/-3 mm within a 2 m section. Greater irregularities should be leveled with an appropriate self-leveling screed. Insufficiently dense or dusty sub-floor requires application of a floor primer. If the parquet boards should be installed over an existing wooden floor, the boards should be arranged perpendicularly to the existing floor.

All types of sub-floors such as concrete, wood, ceramic tiles etc. must be dry in compliance with the following:

| | |
|---------------|--|
| Wood base | should keep approx. 8% humidity at relative air humidity of 50% and temperature of 20 -23°C. |
| Concrete base | CM < 2% |
| Gypsum base | maximum humidity should be <0.5CM% (ideal value <0.3 CM%). (%CM = humidity measured using carbide method). |

Before installing the engineered wooden floor, the humidity of the sub-floor should be controlled and documented.

All types of sub-floors require a vapour barrier. This applies to both concrete sub-floors where one of the layers is a built in vapour barrier and concrete sub-floors covered with linoleum or PVC. Spread a 0.20 mm thick, age-resistant polyethylene film, applying 200 mm wide overlaps, which are to be sealed together with tape. The PVC sheeting should be pulled up to the walls up to the height of skirting boards. Projecting sheeting may be easily removed during installation of skirting boards. An intermediate layer such as chip board, cork mat, floor paper, foam (2-3 mm thick and minimum density of 30 kg/m³) should be installed as a sound insulation. These materials should be laid tight or as recommended by the manufacturer (**Fig. 1**). If arranged tight, adhesive tape is recommended.

In-floor heating

Combination of multi-layer parquet boards with in-floor heating is an ideal solution encompassing elegance and functionality. An engineered wooden floor may serve for many years provided that the basic rules related to the preparation of the sub-floor as well as selection of the proper type of wood for the top wear layer of the floor are observed and the minimum requirements related to the conditions inside the room (i.e. temperature and humidity, exerting impact on the wooden floor) are met. Basic rules:

- The maximum temperature of the floor in any place must not exceed 27°C. This also applies to areas under furniture and carpets.

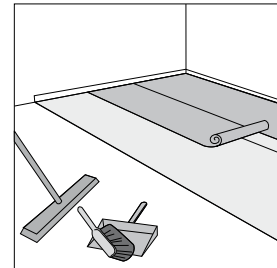


Fig.1



- The manufacturer recommends that the parquet boards be installed on a waterborne in-floor heating system, it is also allowed to install it on an electrical heating system, providing that the system features an accurate surface temperature control and limiting system.
- The sub-floor construction should have a heat distribution layer that provides an even temperature over the whole sub-floor, in order to avoid localized high temperature areas.
- It is not allowed to lay parquet boards continuously on a sub-floor if only a part of it is fitted with a heating system. These areas of the parquet must be separated by dilation joints.
- Sub-floors with built in heating systems should be made in compliance with their manufacturer's recommendations. Before the installation of the floor, a heating test should be performed and a control certificate issued. Furthermore, a person responsible for floor heating system installation should confirm fulfilment of requirements concerning humidity (see chapter Sub-floor).
- A vapour barrier (0.20 mm polyethylene sheeting) should always be situated under the intermediate insulating layer.
- All the above requirements shall be satisfied. For more information, contact the manufacturer.

Attention!

The parquet floor with top wear layer made from beech, maple, jatoba, badi, and tali should not be combined with floor heating.

NOTE 1:

To achieve more effective heating results, the parquet may be glued to the sub-floor. Installation of the floor using appropriate glue should be carried out by a professional wood floor fitter. Detailed information can be obtained from the parquet manufacturer or supplier.

NOTE 2:

Taking into consideration the natural humidity fluctuations of wooden floors and low air humidity of the floor surface, it is impossible to prevent occurrence of gaps between the parquet boards. Occurrence of gaps between parquet boards is not a fault and to minimize its scale, it is recommended to:

- Select/install boards with a mechanical joint system (glue-free), instead of boards which need to be glued. In the case of traditional tongue and groove technique (requiring gluing), the glue should be applied on both, the bottom and on the top of the groove.
- Select/install three row slats floorboards instead of full plank boards. This will allow avoiding cracks which may appear on the wear surface of the product due to the increased heat effect.

Tools and accessories (Fig. 2)

To obtain desired results, it is recommended to use the following tools: spacers, hand block, supporting wedge, hand or electric saw, pencil, measuring tape, angle, chisel, hammer and drill.

Preparations before the installation

The direction of parquet boards should comply with the direction of the main light source (**Fig. 3**). In long and narrow rooms (e.g. corridors), the parquet boards should be installed along the room. Regardless of the assembly system (floating or gluing to the sub-floor), in the rooms of 6m in length/width, a 10 mm interval (dilation joint) between outer edges of the floor and the fixed elements of the construction (walls, doors, thresholds, pipes etc.). In the case of large spaces, the following must be taken into consideration:

- increase the dilation by 1.5 mm for each running metre of the floor,
- floors of the area exceeding 100 m² and/or the length and/or width of which is maximum 10 metres should be divided by dilation joints (**Fig. 4**) and the gaps should be covered with proper mouldings.
- In the case of floors covering several rooms, the floor should be divided by means of dilation joints, thresholds, etc. The same applies to rooms of the following shapes: L, H, T, F or U.

The room should be measured before the installation. It may be necessary to adjust the first or the last row (or both) in respect to width.

Attention!

The smallest acceptable width of the board should not be less than 5 cm. Start laying the floor from the wall with the door. If the base contains fixtures, e.g. a door stop, it is necessary to leave a dilation space (see opening around the pipes **Fig. 15**).

INSTALLATION

Fig. 5 Start installation from the left hand corner of the room, with the bottom lip of the board facing the room. Remember to leave required gaps between the floor and the wall or other permanent elements of the building.

Fig. 6 Insert another board into the groove of the short side at the angle of 20° and lower it. If you feel resistance during the downward movement, you must not use force. You should check for dirt, e.g. wood particles or sand grains in the groove. Follow this way until the end of the first row. Cut the last board so as there remains a proper dilation space at the wall. Check if the longer sides are in one line. The last board should be at least 30 cm long. If it is not so, cut the first board appropriately.

Fig. 7, 8 and **9** The next row should start from the board which remains from the first row. Check if it is at least 50 cm long. If not, cut the new board in the middle. Make sure that the distance between shorter sides of the boards is always at least 40 cm. Insert the board into the groove of a longer side

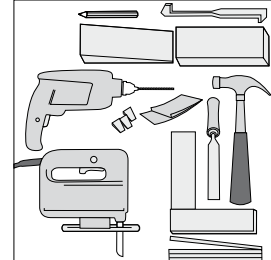


Fig. 2

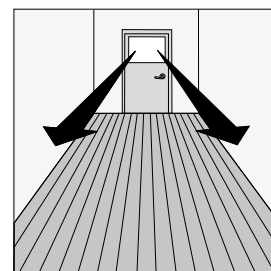


Fig. 3

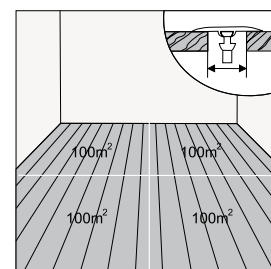


Fig. 4

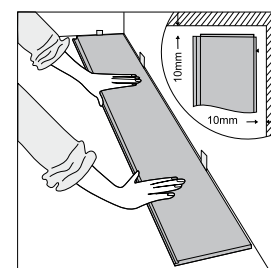


Fig. 5

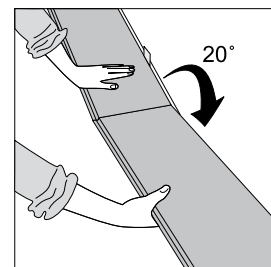


Fig. 6

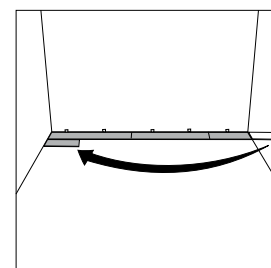


Fig. 7

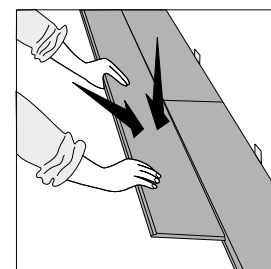


Fig. 8

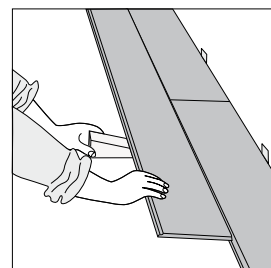


Fig. 9

at the angle of 20°. Move the board closer, lowering it at the same time. Next, put a wedge under the right-side end of the board observing its shape, so as the outer edge of the board is approx. 2 cm above the floor. Check if it is possible to insert/remove the board without resistance. The edge of the board should be marked by a line on the top side of the wedge to help assembling the remaining boards.

Fig. 10 Add another board to the shorter side of the previous board at the angle of 20° and as close as possible to the longer side of the board above.

Fig. 11, 12 Using a hand block (not the hammer!), press on the longer sides with a light stroke. NOTE: the row of boards should fit easily. You must not press the boards with force. Move the wedge under the newly installed board and repeat this procedure until the entire row has been laid.

Fig. 13, 14 If the wall from which you start is irregular, remove the spacers, move the floor closer towards the wall and draw an accurate outline on the first row of boards (it is advisable to use a pencil positioned in a fixed distance from the wall. You may use a slat with a fastened pencil). While drawing the lines, you should take into consideration that the width of the first and last rows of boards should be at least 50 mm. Disassemble the arranged section of the floor. Disassembly of the floor should always be carried out the other way round in respect to the assembly order. Separate the most recently arranged row of boards by grabbing the front and lifting it, and at the same time, pressing and striking it without applying force to the joint. Disassembly of short sides should be carried out by lifting the right-side end of the last board and moving it to the right. Cut the boards of the first row in accordance with the marked outline of the wall and position the boards again. Put the spacers between the floor and the wall again.

Fig. 15 The diameter of openings for the pipes should be 20 mm bigger than the diameter of the pipe.

Fig. 16 The last row with the door. First, distribute the underlay material and remainders (off cuts) of the parquet boards to measure the actual height of the floor. Next, cut the bottom edge of the door. In this case, the boards should be laid perpendicularly (either long or short side). Using a chisel, remove the locking moulding from the groove of a long and/or short side (**Fig. 18a**), apply glue into the groove, and press on the boards. In the case of shorter sides: protect the edges, using a pad and striking it without excessive force with a hammer (**Fig. 18d**).

Fig. 17a, b, c and d The last row without the door. Cut an appropriate part of the board. Take into consideration the required minimum width of the board and a proper interval from the wall. Assemble an entire row and install it with the already laid floor.

Fig. 18a-e The last row in long rooms. In this case, each board may be installed separately. Carefully remove the locking moulding from the groove on the short side and apply glue. Place another board, next to the previous one, leaving the smallest possible interval. Join short sides of the boards striking a pad without excessive force with a hammer. Finish the work by inserting the spacing wedges. Remove the wedges, after the adhesive has dried.

Finishing

The floor may be used immediately after it has been installed; however, you should avoid places where glue has been applied, until it has dried. After the assembly has been accomplished, the spacing wedges must be removed and the skirting boards may be installed. It must be remembered that the skirting boards must not press on the floor and must not be joined with the parquet.

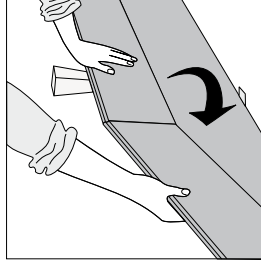


Fig.10

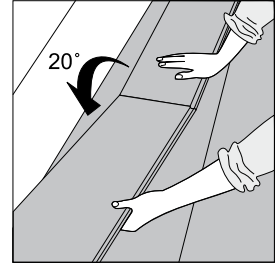


Fig.17 b

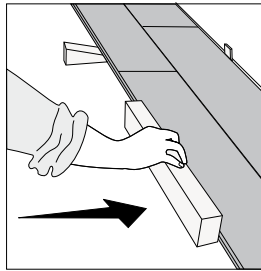


Fig.11

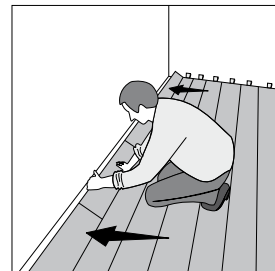


Fig.17 c

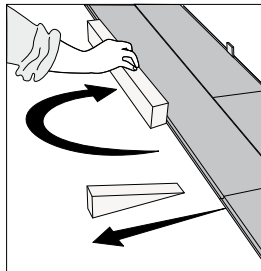


Fig.12

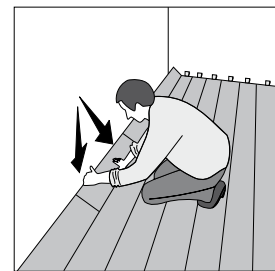
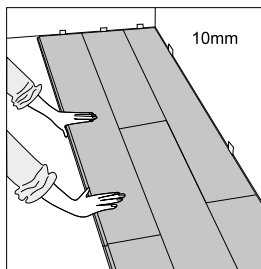


Fig.17 d



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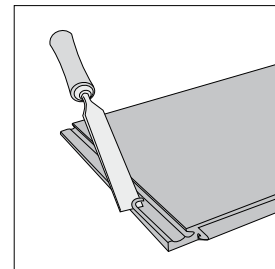


Fig.18 a

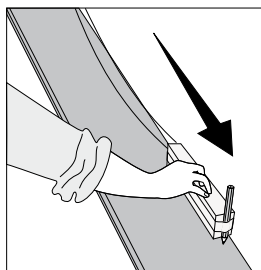


Fig.14

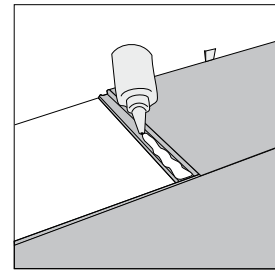


Fig.18 b

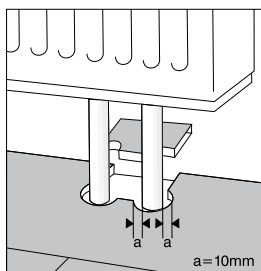


Fig.15

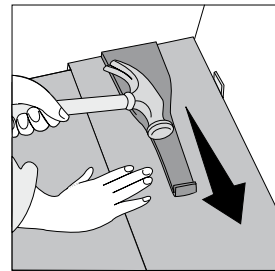


Fig.18 c



Fig.16

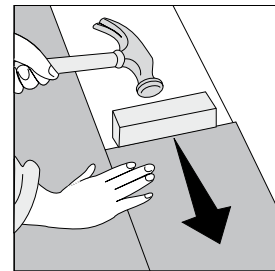


Fig.18 d

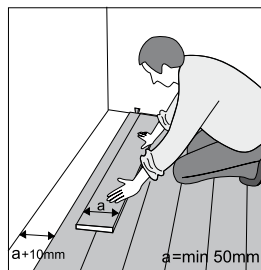


Fig.17 a

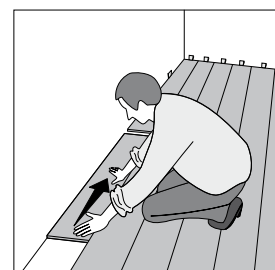


Fig.18 e

Preventive measures

- Doormats must be definitely installed. A mixture of water and grit combined with intensive usage of the floor brings the same results as abrasion of the floor with abrasive paper.

Make sure that:

- doormats are big enough, i.e. allow effective removal of grit and water.
- their structure allow absorption of grit and water so that the doormats could fulfil their tasks.
- Keep the doormats clean. Replace or clean them from time to time.
- Use protective pads. Pads made of felt adhered under the legs of chairs and furniture protect the surface of the floor from scratches. Make sure that the applied pads are designed to protect wood floors. Pads designed to protect PVC lining are detrimental to wood floors.
- Do not expose the floor to the water. In the case of water spill, wipe the floor immediately.
- Relative humidity of the room where the floor is installed and later used should be approx. 30-60% (use of an effective humidification system is recommended).
- In winter, when the rooms are heated, relative air humidity reaches such a low level that the parquet is exposed to over drying. This may be prevented by the usage of air humidifiers.

Varnished floors

The outer, extremely durable layer of the UV varnish is always the first and the most important protection of the wood floor. For this reason, it should be looked after and maintained in an excellent condition as long as possible.

Cleaning and care

Everyday maintenance includes vacuuming and sweeping. Each wood floor should be regularly wiped with a well wrung mop with a proper care agent. Varnished floor should be looked after with generally available care agents FOR VARNISHED FLOORS, acting in accordance with the instructions on the usage of the agents printed on the product labels.

Oiled floors

The parquet finished with oil gives a feeling of a special and natural atmosphere in the house or flat. To enjoy the floor for a long time, it must be properly looked after. As time goes by, the floor becomes increasingly resistant to wearing off, since the floor care results in emergence of a protective layer, which prevents the parquet from getting dirty.

Cleaning and care

Oiled floor should be looked after with generally available care agents FOR OILED FLOORS, acting in accordance with the instructions on the usage of the agents printed on the product labels (the manufacturer recommends the usage of OSMO brand cleaning agents). Detailed information regarding care and cleaning (dosage and application of proper agents) can be found on the product labels.

Warranty claims

The contractor is required to check the boards before the assembly. In the case of usage of boards with visible faults, the boards shall not be subject to claim (they are not covered with warranty liabilities of the manufacturer). Damage occurred during transport must be notified to the supplier within seven days of delivery, prior to the assembly of the floor. The manufacturer does not accept returns of material which has not been used. Production date is present on a product label on the package.

The manufacturer reserves the right to introduce changes.