

Herringbone Gluedown (concrete) Guide_ME Floor

Advantages:

Suitable for heated floors: this type of installation is compatible with underfloor heating systems, ensuring uniform heat distribution.

Efficiency: less expensive and material-intensive compared to adhesive installation on a plywood base and adhesive installation using an underlay.

Unlimited floor covering area: this method allows to lay the floor covering without creating expansion gaps in doorways, which creates a visually integral space.

1. Microclimate

Temperature of the base and air in the room where the parquet is planned to be installed should be stable and be within 18-26 °C and the relative air humidity - from 40% to 65%. Avoid acclimatizing the parquet and installing it at extreme values of the permissible microclimate range. Optimum conditions for installation are a temperature of 22 °C and humidity of 50%. In such conditions, the parquet will have a balanced reserve for expansion and shrinkage. Installation at high humidity can lead to the formation of micro gaps between the boards after the microclimate has normalized and installation at low humidity can lead to deformation of the boards and the occurrence of internal stress. Use industrial dehumidifiers and humidifiers to regulate the microclimate.

2. Base requirements

Base preparation is a key stage that determines the quality and durability of the entire parquet flooring system. To ensure reliable adhesion of the parquet to the base and its long-term exploitation, certain requirements must be met:

- the base must be strong, with a minimum compressive strength of 20 MPa, without cracks and chips. All defects must be eliminated with a repair compound. This is important, since the floor will be subject to mechanical loads, as well as alternating compression and tension deformations associated with changes in the size of the boards due to seasonal fluctuations.

- the base must be flat, with permissible deviations of no more than 2 mm for every 2 meters of length. Minor unevenness can be removed by grinding, to remove large unevenness it is necessary to use self-leveling mixtures on a cement base. If the base is uneven, this will lead to uneven gluing of parquet planks, which will create an increased point load and over time can cause the destruction of the concrete base.

The strength of repair compounds and self-leveling mixtures after their hardening must not be lower than the value specified above. It is strictly forbidden to lay parquet on gypsum-based bases.

- the base must be dry. The permissible humidity should not exceed 2% by weight, which corresponds to approximately 4% by the carbide method. If the humidity exceeds the permissible values, it must be reduced by ensuring good ventilation or using dehumidifiers. Waterproofing should also be provided, especially if the base is located above damp, wet rooms or soil. High humidity of the base can lead to deformation and damage to the parquet board, so it is important to strictly monitor this parameter.

3. Subfloor preparation

Remove dust, dirt, debris and other residues from the subfloor that may reduce the adhesive's adhesion to the subfloor.

Treat the subfloor with a primer. This improves the glue's adhesion to the surface and can act as a primary waterproofing agent, preventing moisture penetration. The primer should be applied evenly using a roller or brush, ensuring complete coverage of the entire surface without gaps.

4. Parquet installation

The parquet is installed last, after all construction and finishing work that may lead to increased pollution and humidity in the room has been completed. Before installation, it is necessary to ensure that all microclimate systems are operating in a stable mode.

Bring boxes with the parquet to the installation site and leave them in the original packaging for a couple of days. Do not open boxes in advance. The parquet must adapt to the room's temperature and humidity. Please follow this rule, especially in winter or in the case of international deliveries from different climatic zones, to avoid "shock" for the parquet from sudden changes in temperature and humidity.

Before you start installing the parquet, we recommend choosing planks that match each other in color and texture, which will ensure a uniform and harmonious appearance of the floor. Planks with small defects should be set aside for use in places where they will be hidden by furniture, or used at the beginning or end of a row, after cutting defects.

Determine which boards match better the baseboard and other interior elements, if any, and set them aside for installation in the appropriate places.

Decide on the installation direction. Installing boards along the long side of the room helps to create a visual effect of lengthening the space and looks more aesthetically pleasing. The recommended reserve of 7% - 10% of the finished area

is necessary to compensate for possible losses during the boards selection, cutting out defects or small differences in the size of the room in the layout from the actual ones. Such a reserve helps to avoid a shortage of material during installation and, if necessary, provides the ability to replace damaged boards during the work.

To ensure accurate installation, it is necessary to mark out so that the boards are strictly parallel to the walls. This will help to identify possible deviations of the walls from parallelism, as well as to avoid the appearance of a crooked row with boards of different widths near opposite walls.

When laying parquet boards, it is necessary to consider the presence of expansion gaps along the walls and around any obstacles in the room, such as columns, outgoing heating pipes, built-in floor convectors and other elements.

When installing around complex shapes, such as curved columns or asymmetrical obstacles, it may be necessary to cut the boards. Use accurate templates or marking tools to ensure a neat result. Always check the size and location of all obstacles before starting the installation to plan where the expansion gap will be required and what elements will be used to hide it.

The recommended size of the expansion gap is 8-10 mm. This gap is important to compensate for possible changes in the dimensions of the boards due to temperature and humidity fluctuations. Make sure that the expansion gap will subsequently be completely covered with skirting boards or other decorative moldings.

Make sure that the width of the rows adjacent to the opposite walls will be at least half the width of the board. This will ensure an aesthetic appearance of the entire floor. If necessary, adjust the width of the first row of boards by cutting them to the required dimensions.

If the walls have significant deviations from parallelism, it is recommended to use diagonal installation of the parquet. This will prevent the appearance of crooked rows near the walls and create a more harmonious look of the floor. Keep in mind that diagonal installation increases the consumption of parquet, which can reach 10% - 15% of the finished area, depending on the configuration of the rooms. Before starting diagonal installation, make sure that you have enough material to complete it.

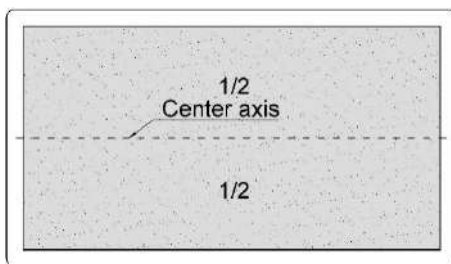
This is recommended to use two-component polyurethane adhesive or one-component adhesive based on MS polymers for parquet installation. These adhesive types have excellent durability, elasticity and good adhesion to both wood and concrete, which ensures a reliable and durable connection. The use of water-based adhesives is not recommended, as they can cause wood deformation due to moisture penetration at increased consumption.

Before using the adhesive, prepare it according to the manufacturer's instructions. Use a special notched trowel of the appropriate size to apply the

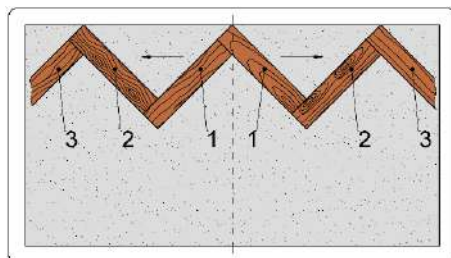
adhesive evenly to the surface of the subfloor, ensuring that the recommended consumption is observed.

Work in stages, applying the adhesive only to the area that can be covered with boards before the adhesive begins to set. It is important to take into account that the adhesive has a different film formation time depending on its brand, type and the microclimate in the room. This time may vary, so follow the manufacturer's instructions and the room conditions to avoid adhesion problems and ensure high-quality installation of the boards.

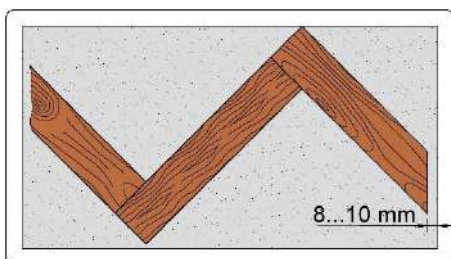
If adhesive gets on the front surface of the parquet, remove it immediately using special products that do not damage the parquet coating. This will prevent stains from appearing after it dries and preserve the aesthetic appearance of the floor. It is important to act quickly and carefully to prevent the adhesive from being absorbed into the surface.



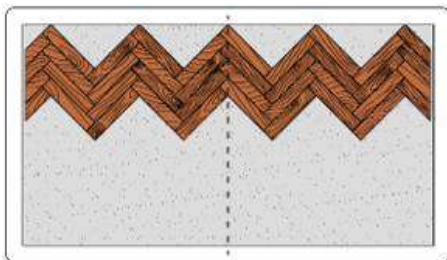
Divide the room in half lengthwise. Mark the center line using chalk line or a laser level to ensure accuracy. Check that the line is straight and aligned with the desired marks. If necessary, secure the line with a permanent marker.



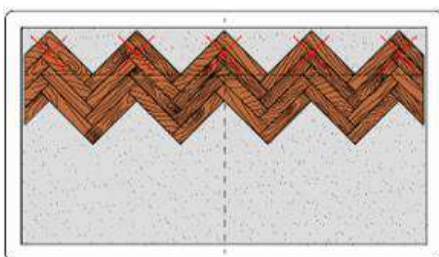
Start laying the first row of parquet from the center line along the wall which is further from the entrance. Do this by "dry" method - without fixing planks with glue, to ensure accuracy before final fixing.



Use a protractor to determine the length and angle of the cut of the last board in a row. Make sure that the length of the adjoining board is sufficient to form an expansion gap after its installation.

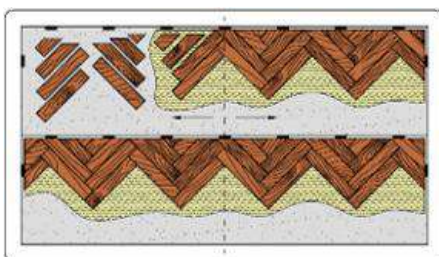


Lay out four or five rows of parquet in the same way as the first. Make sure that each row is laid out evenly and fits tightly against the previous one. Check regularly for proper installation and expansion gaps. Make sure that everything is flat.

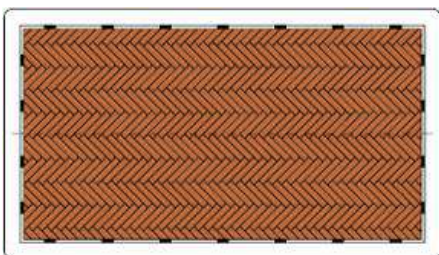


Draw a line with a marker using a straightedge set exactly at the tops of the inside corners of the first row of planks. This will be the starting line after the boards are cut and laid into the overall covering. Number the boards to avoid mistakes when laying them out. Cut the boards along the markings. Use

the cut planks to complete following rows.



Install spacers along the wall to create a compensation gap. Apply glue to the base. Start laying the boards from the center line, alternating rows on both sides of it. Tap the boards with a hammer through the spacer so that the tongue fits tightly into groove, without gaps.



Continue laying to the opposite wall, remembering to install spacers along the walls. Once installation is complete, use the remaining pieces of parquet cut at the beginning. Clean the parquet from debris and dust using suitable care products.

Avoid any movement in the room until the adhesive has hardened. After that, be sure to remove all spacers and inserts.

Install skirting along the perimeter of the entire room, fixing it only to the wall. This will prevent possible damage to the installed flooring and provide the necessary space for the parquet to expand during seasonal fluctuations. If necessary, cover the parquet with a protective material. For long-term covering, use only breathable material, as it prevents moisture accumulation and allows parquet to "breathe". Film materials can only be used for a short period. Do not cover the parquet if the underfloor heating system is in exploitation or if the heating pipes running in the floor are insufficiently insulated, to avoid overheating and damage to the parquet flooring.