# Plank Gluedown (underlay) Guide\_ME Floor

### Advantages:

Improved sound insulation: significantly improves the sound insulation properties of the floor. This is especially important in multi-storey buildings and apartments, where it is necessary to reduce the noise level between floors.

Damping and walking comfort: the underlay gives the floor additional damping, which makes walking on such a floor more comfortable. This reduces the load on the joints and spine.

Base leveling: underlay can help hide minor unevenness of the base, providing a more even and stable surface for laying the parquet.

Thermal insulation: underlay can act as thermal insulation, improving the energy efficiency of the room and making floor warmer to touch.

Moisture resistance: some types of underlays have moisture-proof properties, which can be useful in rooms with high humidity or when laying parquet on a concrete base.

Reduced load on the base: underlay distributes the load on the base, which can be useful for maintaining the integrity of the subfloor, especially if it is not very strong.

ATTENTION: This type of installation is not recommended for heated floors.

## 1. Microclimate

The 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 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 may result in micro gaps between the boards after the microclimate has returned to normal, while installation at low humidity may result in board deformation and 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 floor. To ensure reliable adhesion of the parquet to the subfloor and its long-term operation, certain requirements must be met:

#### 2.1 Base Subfloor

2.1.1 Requirements for the Base Subfloor

- the base must be intact, without damage or delamination.

- the base must be sufficiently rigid.

- the base must be flat, with permissible deviations of no more than 2 mm for every 2 meters of length.

- the base must be dry. The permissible moisture content of the base subfloor made of cement materials must not exceed 2% by weight, which corresponds to approximately 4% by the carbide method. For wooden bases, the permissible moisture content must not exceed 9% by weight. If the humidity exceeds the permissible values, it must be reduced by providing 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 of the parquet board, so it is important to strictly monitor this parameter.

### 2.1. Subfloor preparation

Remove dust, dirt, debris, and residues of other substances from the surface of the base that can reduce the adhesion of the adhesive to the base.

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

#### 2.2 Underlayment base

## 2.2.1 Recommendations for choosing an underlay

When installing engineered parquet using adhesive method, it is important to use a specialized underlay designed for such purposes. Underlays made of cork, polyurethane or combined materials are ideal for these tasks, providing the necessary stability and durability. Choose the type of underlay that best solves your specific problem, be it thermal insulation, sound insulation or moisture protection.

It is recommended to choose an underlay with a thickness of 2 to 4 mm. Thinner underlays are better suited for perfectly flat bases, as they ensure the most tight fit of the parquet. At the same time, thicker underlays will help to compensate for minor unevenness of the base, which is especially important when laying on surfaces that are not perfectly flat.

For multi-storey buildings, where sound insulation plays a key role, preference should be given to underlays with high sound insulation characteristics. This will significantly reduce the noise level between floors, ensuring comfortable living for you and your neighbours.

### 2.2.2 Gluing underlay to the base

Use only adhesives recommended by the underlay manufacturer.

Apply the adhesive evenly over the entire surface of the base to ensure highquality adhesion.

Apply the adhesive only to the part of the surface that you will have time to lay before the film formation time specified in the instructions expires. If the adhesive dries, the adhesion may be disrupted, which will negatively affect the durability of the structure.

Use a special notched trowel to apply an adhesive. Apply an adhesive 15-20 mm wider than the dimensions of the underlay to ensure reliable adhesion at the joints of adjacent sheets.

After applying the adhesive, lay the underlay immediately, leaving a gap of 10-15 mm from the wall. Lightly press and stretch the underlay, carefully cutting it off, leaving 10-15 mm short of the walls, door thresholds, door units, stairs and radiator pipe outlets.

When laying the next sheets, leave a technological gap of 5-10 mm between them.

Press the underlay firmly to the base using a pressure roller and roll it over the entire area to evenly distribute the adhesive and remove air bubbles, ensuring reliable adhesion of the material to the base.

#### 3. Parquet installation

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 starting the installation, it is necessary to make sure that all microclimate systems are operating in a stable mode.

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

Before installing the parquet, we recommend selecting 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 planks 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 planks 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 3% - 4% of the finished area is necessary to compensate for possible losses in the process of selecting planks, cutting out defects or small differences in room sizes in the layout from the actual ones. Such a reserve helps to avoid shortages 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 an 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 fluctuations in temperature and humidity. Make sure that the expansion gap will be completely covered by baseboards or other decorative moldings later.

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 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 7% - 10% 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 onecomponent 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 waterbased 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 highquality 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.

Installation should be started from the far corner of the room, opposite the entrance. This will provide easy access to the work area and prevent the need to move around the installed parquet.

Install the first board according to the previously made marks, with the longitudinal groove towards you, moving from left to right. At the same time, cut the longitudinal tongue to provide the required size of the expansion gap along the wall.

Use inserts to form the expansion gap and fix the boards of the first row.

While installing parquet boards on glue, carefully press them to the base to ensure reliable contact. To tightly connect the boards, use a rubber mallet and a spacer, which will protect the edges of the boards from damage. Avoid direct blows with a hammer on the parquet, as the edges of the boards are extremely fragile and can be easily damaged.

Install the boards of subsequent rows, aligning the tongue and groove of the previously installed boards and press them tightly to the base.

Select the boards so that the distance between the end joints in adjacent rows is at least one and a half board widths. This will not only improve the appearance of the floor, but also increase its rigidity and stability.

The boards widths of the last row should be cut considering the necessary compensation gap along the wall.

After installing the last row in a separate room, use spacers around the perimeter to bring the flooring together. This will ensure a tight connection of the boards and eliminate all micro gaps.

Clean the parquet from debris and dust using suitable care products.

Limit movement in the room until the glue has cured. Then be sure to remove all spacers.



Install the skirting board around the perimeter of the entire room, fixing it only to the wall. This will prevent possible damage to the 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 the 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 operation or if the heating pipes running in the floor are insufficiently insulated, to avoid overheating and damage to the parquet.