Design Your Home

combine different patterns

Barlinek

FLOORS FOREVER

CLASSIC HERRINGBONE

ALTERNATIVE PATTERNS OF HERRINGBONE FLOORING

Barlinek Classic Herringbone can be installed in different ways. In addition to the traditional installation method, a very interesting alternative is the installation with the use of bordure, inserts or the installation of double, triple herringbone.

Herringbone with dimensions of 26” x 4” gives the possibility of assembly in squares or ladder pattern.

In the case of 28.5” long boards, you can also use products of different widths – 5” and 7”.

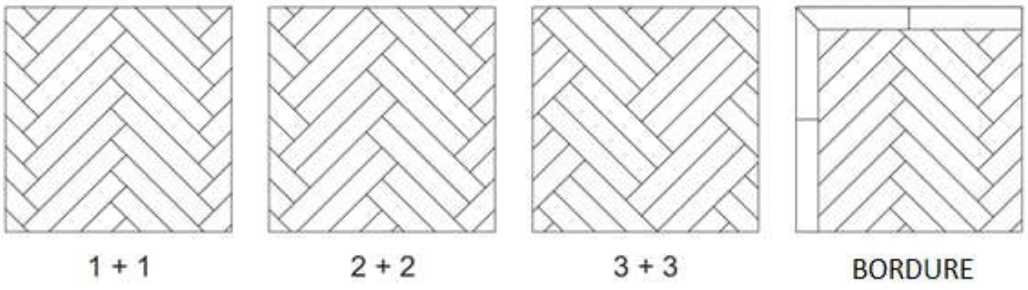
Universal construction of Barlinek classic herringbone - the lack of right and left elements significantly speeds up and facilitates installation time.

NOTE: Installation other than single herringbone requires permanent fixing to the subfloor - adhesive or staple installation is allowed.

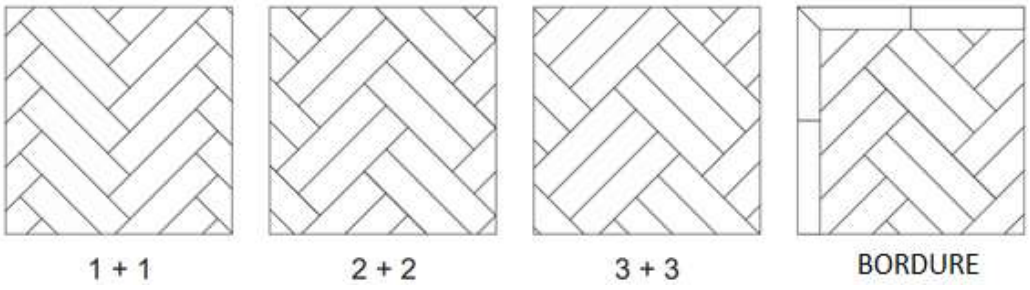
Below are examples of Barlinek classic herringbone installation patterns.

26” x 4”

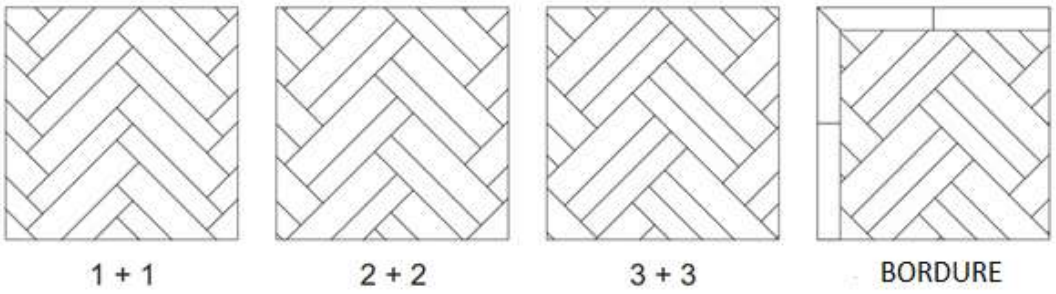
28.5” x 5”



28.5” x 7”



28.5” x 7” + 5”



General rules of installation of classic herringbone:

The installation of classic herringbone in patterns/with bordures requires the use of professional tools, so it is best to have it done by parquet installation specialists.

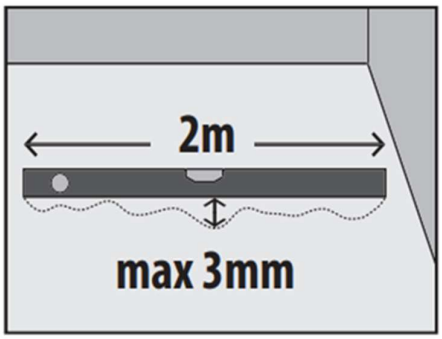
1. **Before installation:**
    - Barlinek floors are packed in a cardboard box and foil, which protect the products from damage and moisture.
    - Packages should be transported in a closed vehicle without being exposed to the weather conditions.
    - Delivery to the installation site should be carried out at a time when all wet works, e.g. plastering, tile bonding, are completed. Full exterior woodwork - windows and exterior doors - must be installed. Check their tightness and quality of installation - any repairs must be done before delivery of the wood flooring.
      If this is not possible, the goods should be delivered to a place where there are suitable microclimatic conditions - optimally: the humidity of the air should be from 45% to 60%, and air temperature from +64.4°F to +75.2°F (+18°C to +24°C).
      Parameters may vary depending on the region of the country. It is worthwhile to consult the U.S. Climate Zones Map, which has been adopted by many organizations including the U.S. Department of Energy (US DOE), the International Energy Conservation Code (IECC), the International Code Council (ICC), and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). This will allow you to periodize seasonal variations in humidity and air temperature, and thus choose the optimal installation method.
    - Before installation the flooring should be acclimated act least for 48 hours. Store them on wood spacers or pallets, keeping a distance between the packages to allow air circulation. Unpack the packages right before installation.
    - Wooden floors can be installed only in rooms with efficient ventilation.

2. Substrates - Barlinek flooring can be installed on the following substrates:
    - OSB board, plywood, particle board - should comply with the current version of the American standard PS 2 and/or Canadian standard CAN/CSA 0325 or CSA 0437. Accredited testing agencies for OSB and plywood underlays are: APA (The engineered Wood Association), PFS TECO (PFS Corporation and Timberco Inc.) and TPI (Timber Products Inspection).
      For substrates mounted on joists and beams, check their spacing and proper installation - the boards must lie stably, they must not bend, creak or buckle. Small irregularities between the boards can be levelled, for example, by sanding. The thickness of the board should be selected based on the spacing of the joists and the anticipated payload.
      It is not possible to install three-layer floors on a particleboard with staples - no proper adhesion of connecting elements.
    - Cement and anhydrite screeds.

Concrete substrates are designed and constructed from mixtures with compressive strengths from 3000 psi to 4000 psi. A compressive strength of 3,000 psi (approx. 20 MPa) is the minimum requirement for most standard wood floor installations, including wood floors glued to the subfloor.

In the case of heating substrates, it is a required for the substrate to be heated first. This process is designed to remove residual moisture and reduce the stress of the screed.

1. **Substrate evaluation:**
    - **Flatness:**
      Unevenness of the substrate must not exceed 3mm per 2mb (1/8" per 6.56 ft). Check the substrate with a 2-meter level and wedges or a spreading measure. For large areas, a rotary laser works best.
      We can remove small deviations from the plane by grinding or milling. In case of significant irregularities, leveling compounds, levelling compounds can be used.

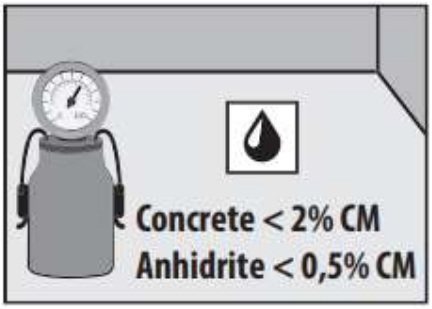


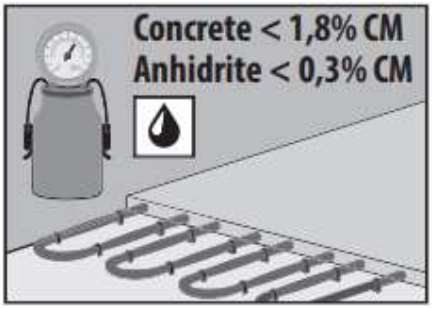
- **Porosity:**

A parameter important for bonded floors. Evaluation should be made according to the CSP scale (from to 10; 1-smooth primer; 10-strongly porous) and compared with the adhesive manufacturer's requirements. Very smooth substrates need to be sanded, milled or shot-blasted bringing them to a suitable condition.

- **Moisture content:**

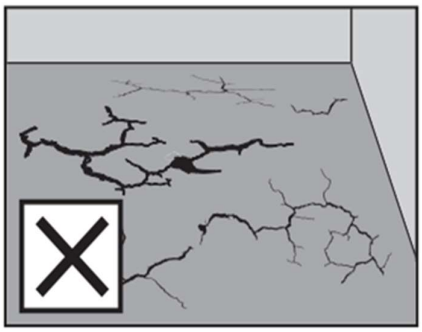
Wood-based substrates- max 13% (take into account the conditions of the US region) - resistive or capacitive testing. The most accurate method is laboratory testing in a weighing machine according to ASTM D4442. However, such a measurement cannot be carried out on site.
Cement and anhydrite screeds:
* ASTM F1869-test using calcium chloride-real moisture measurement from the subfloor. The maximum acceptable result is 3 pounds of water evaporated from 1,000 square feet in 24 hours.
* ASTM F2170- measurement of relative humidity in the borehole. Maximum allowable level is 75% (without underfloor heating) and 65% (with underfloor heating).
*ASTM D-4944- measurement of CM- allowable max. cement screeds 2% (without heating) and 1.8% (with heating); anhydrite screeds 0.5% (without heating) and 0.3% (with heating).





If the moisture content of the substrate on cementitious substrates is found to be elevated, a Class I- vapor barrier can be used in accordance with ASTM Test Procedure A E-96 .
Vapor barrier cannot be used on wood and anhydrite substrates.
Vapor barriers do not protect against incoming moisture, installation leaks, lack/errors of wall/foundation insulation. Special attention should be paid when installing in rooms below the ground surface (below grade).
External surface drainage (e.g., gutters, landscaping) should direct water away from the building. Water from rain, melting snow, irrigation systems can naturally move toward the foundation and structure. Surfaces of impervious asphalt, cement or cobblestone sidewalks should be laid with a minimum 2% slope away from the building walls.
Attention should also be paid to possible rising groundwater. Regularly check the patency of gutters and downspouts.

- ***Cracks***



Cracked, weak and dusty substrates are not suitable for the installation of wood floors. They should be properly prepared and reinforced. Not even and buckling screeds should be incised, braced and grouted with commercially available resins.

Before gluing the floor, the strength of the substrate should be checked with the RI-RI hardness-risk tester, making a cutting grid. The spring should be stretched to a medium setting corresponding to a pressure of 18MPa. Multi-layered floors can be glued to substrates rated as hard and medium-hard after measurement - Figure 1.

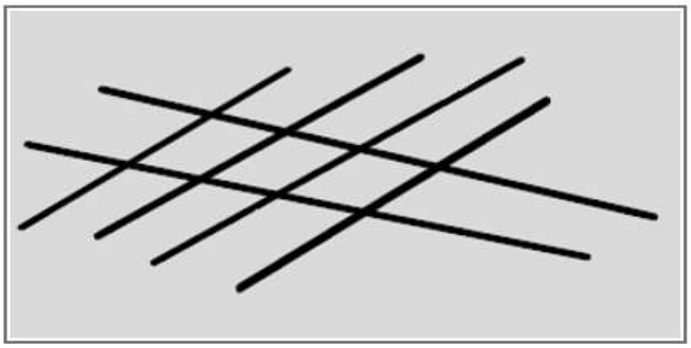


Figure 1

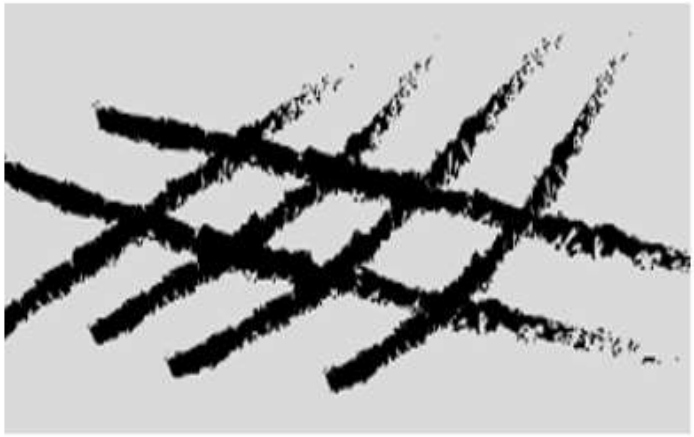


Figure 2

Substrates with insufficient strength (Figure 2) can be reinforced with the polyurethane, epoxy or silicate system primers.

1. Installation method:

- **Nail-mounted flooring:**

- recommended L-cleats or T-cleats; 18-20g (gauge according to AWG) ; length min. 1 ¼”
- 18g-20g staples (narrow crowned)- 1/4”;

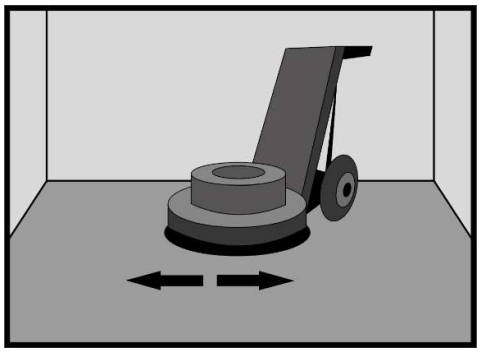
- **Glue floor:**

- we recommend one-component adhesives - MS, STP, PU adhesives;
- glue must be approved by the glue manufacturer that is approved for gluing factory finished floors;
- Standard recommended spatula is B11- size according to TKB- V-NOTCH WITH BRIDGE type putty; when choosing a tool, take into account the adhesive manufacturer's guidelines and the measured irregularities of the substrate;

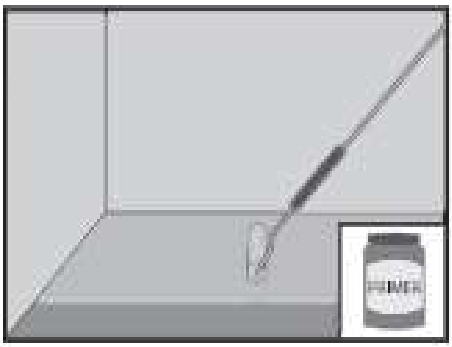
EXAMPLE SUBSTRATES AND TYPE OF INSTALLATION

SUBSTRATE TYPE	GLUE-DOWN INSTALLATION	NAIL-DOWN INSTALLATION
mineral with water/ electric submerged heating	YES	NO
electric heating mats	NO	NO
mineral- strong	YES	NO
OSB	YES	YES
plywood	YES	YES
chipboard	NO	NO
wooden floor	YES*	YES **
carpets, rugs	NO	NO
LVT flooring	NO	NO
glued PVC floor coverings, linoleum	NO	NO
PVC floor coverings, linoleum in bulk	NO	NO
glued PVC tiles	NO	NO
glued ceramic tiles	YES***	NO
stone floor	YES****	NO
aluminum/steel	YES*****	NO
carpet tiles	NO	NO
laminated panels	NO	NO

* after grinding off the old coatings, the substrate even, not yielding
** even substrate, not yielding, wood of right density, without biodegradation - a test is necessary
*** contact Barlinek Technical Department
**** contact Barlinek Technical Department
***** contact Barlinek Technical Department

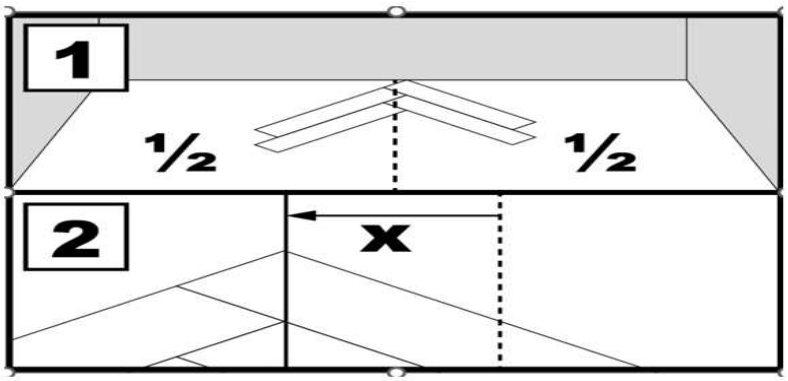


Before gluing the floor, the substrate should be thoroughly sanded with a single-disc machine, using appropriate cutters or grids. This is to remove weaker surface layers of the screed - especially necessary with anhydrite.



We prime the substrate - when gluing floors with a system primer (if required).

Installation of classic herringbone with bordure:



1. It is necessary to start the installation by determining the place where it begins - usually it is the center of the room - the dotted line. Then we draw another line through which the corners of the boards will pass during installation. We move this line to the right (if we start the board from the right side), by the following dimension:
   - for a board 4” wide -1 37/64” (110 mm wide – 40 mm);
   - for a board 5” wide - 1 49/64”(130 mm wide – 45 mm);
   - for a board 7” wide - 2 36/64”(180 mm wide – 65 mm) .

2. Then it is necessary to trace lines from the walls where the bordure will be. For the bordure we can use boards from Barlinek offers - they are available in different widths 4”, 5”, 6”, 7” and 8” (110 mm, 130 mm, 155 mm, 180 mm and 207mm) so this needs to be determined at the stage of purchasing the material. You can use bordure in different colors to achieve a more visible effect, but it is important to use products in the same finish - varnish/varnish, oil/oil - which will make it easier to care for the floor.
   Add a 25/64” (10 mm) expansion gap to the drawn width. This line speeds up the installation – there is no need to spread the glue beyond this line, which makes it easier to remove the cut off part of the floor.

3. Install the herringbone with glue or staples.

4. After the floor has been glued and the glue has dried - usually after a minimum of 12h, cut off the floor excess according to the lines drawn earlier. Use a plunge-cut saws with guide rail this purpose. The ordinary circular saw can be also used, but it requires making a guide rail to get the even cut line.

5. Recreate the original factory-made bevel with a milling, if there was bevel. The inclination angle of the cutter is about 25°, and we match the size of the bevel to the factory-made flooring.

6. Using a spindle molder and a rebate cutter, make a groove into which the board will be inserted for the bordure. The groove should be 15/64” (6 mm) wide and deep (when using T&G floorboards for the bordure) or 13/64” (5 mm) wide and 10/64” (4 mm) deep when using floorboards with a click joint. The milling machine should be set at such a height that the floorboards face the top layer.

7. After cutting the boards for the bordure, spread parquet glue on the substrate and the wood glue in the beveled groove.

8. Glue-down the previously cut boards.

9. After milling the bevel, raw wood is exposed which must be protected and the original flooring color restored. For this, use nitro or oil stains and dedicated varnishes or oils. To avoid dirt, these areas should be protected with painter's tape.