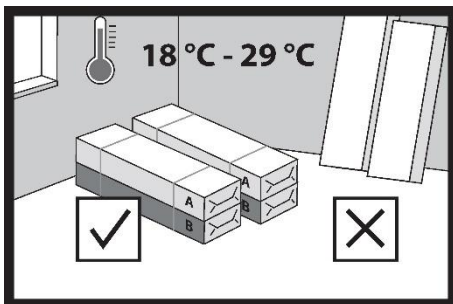


SPC herringbone installation instructions without integrated underlay

Important information before deciding
on the choice of SPC panel installation system



1.

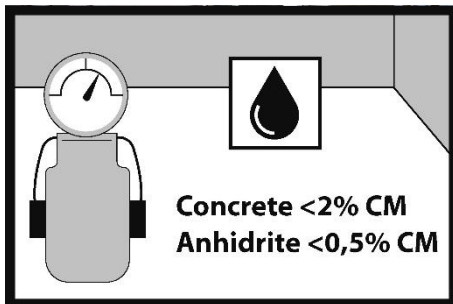
Before the flooring is delivered to the installation site, doors and windows must be installed in the building, and all "wet" work must be completed, e.g. plastering, partition wall construction, painting, etc. If there are basements under the floor installation site in the building, they must be dry and well ventilated. SPC panels can be installed in all living spaces such as rooms, bedrooms, kitchens and bathrooms, as well as in most public spaces.

SPC floors should be used in accordance with their intended use as specified in the ISO 10874 class of utility rooms. Information on the intended use of a given SPC floor for a particular class of utility room can be found on the product packaging, in the product data sheet and in the product description available at barlinek.com.

Packaging containing SPC flooring panels should be handled with care during transport and unloading to avoid any mechanical damage. SPC floor panels in their original packaging should be stored in a dry place, in a horizontal position, on pallets or wooden beams. A free space of at least 75 mm between the SPC panel packaging and the ground must be ensured.

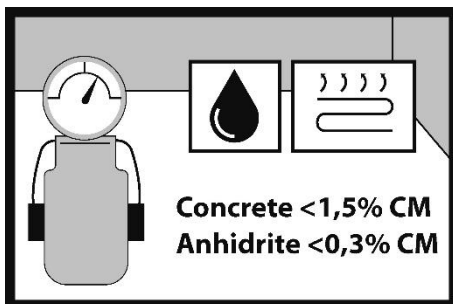
The flooring should be stored in its original packaging in the room where it is to be laid for at

least 24 hours to allow it to acclimatise. The air temperature should be between +18°C and +29°C.



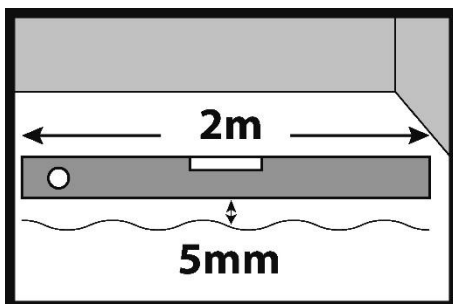
2.

The moisture content of the wooden subfloor (or wood-based panels) should not exceed 12%. The moisture content of the concrete subfloor should not exceed 2%, and that of the anhydrite subfloor should not exceed 0.5%. The measurement results should be documented.



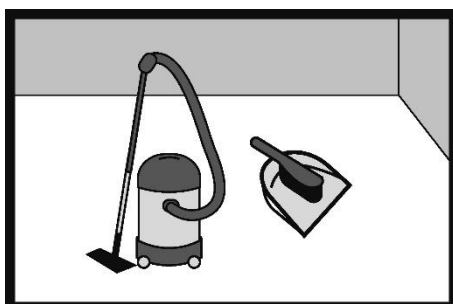
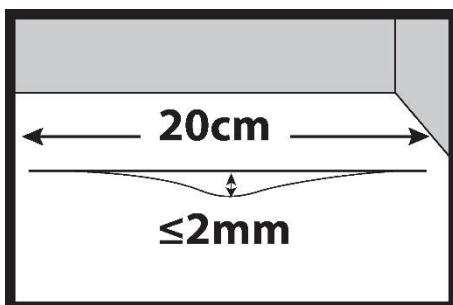
3.

When installing SPC panels on underfloor heating, the moisture content of the concrete substrate should not exceed 1.5%, and that of the anhydrite substrate should not exceed 0.3%. The measurement results should be documented.



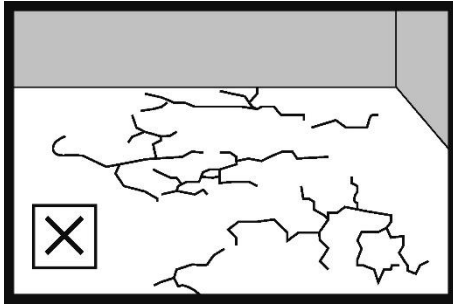
4.

The maximum permissible unevenness may be up to 5 mm, measured over a length of 2 m. Local/spot unevenness should not exceed 2 mm over a length of 20 cm.



5.

Before installing SPC panels, the substrate should be swept or vacuumed. The substrate should be free of dust, debris, paint, varnish, wax, grease, oils, hardeners, sealants, solvents, sand, adhesive residues, fats and other foreign matter.



6.

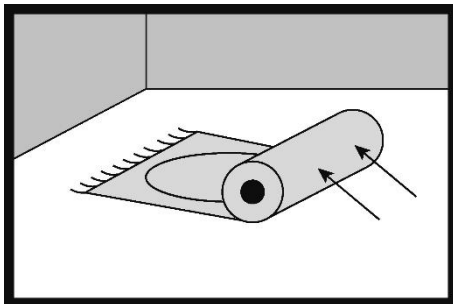
The subfloor should be dry, stable, free of scratches and cracks, and clean with no visible dirt. Cracks and defects in cement or anhydrite subfloors should be filled. In the case of floating installation on ceramic tiles, joints wider than 5 mm and deeper than 2 mm must be filled. For adhesive installation, fill all joints between tiles with filler and refer to the adhesive system manufacturer's guidelines.

Information on the adhesive system recommended for installing SPC floors can be found at

barlinek.com

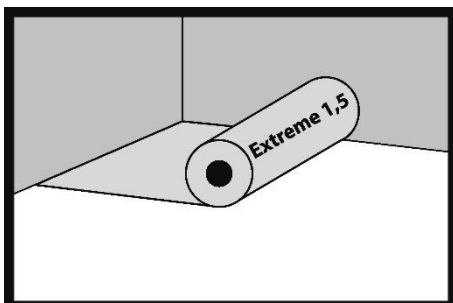
Plywood, OSB and chipboard must be structurally sound and installed in accordance with the manufacturer's recommendations. We recommend installing wood-based panels in two layers, joined with wood screws. The edges of one layer of panels should be installed in a staggered manner in relation to the second layer. The wood-based panel subfloor must provide adequate rigidity and support for the proper installation of the SPC floor. The panel joints should be smooth and should not bend or spring under load.

All screw heads should be slightly countersunk below the surface of the board.



7.

SPC flooring panels must not be installed on existing soft carpet coverings, soft PVC coverings, carpets and other similar materials.



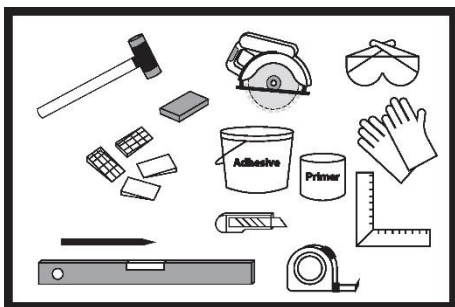
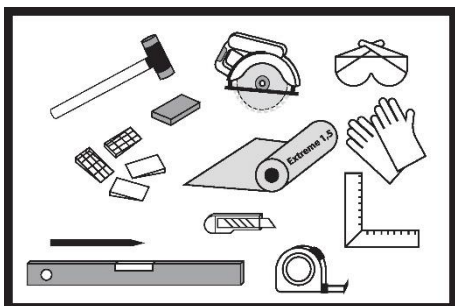
8.

When installing SPC panels in a floating system, use an underlay with the following parameters:

CC – long-term static loads ≥ 90 kPa

CS – short-term load ≥ 400 kPa

DL – dynamic load $\geq 4,000,000$ cycles



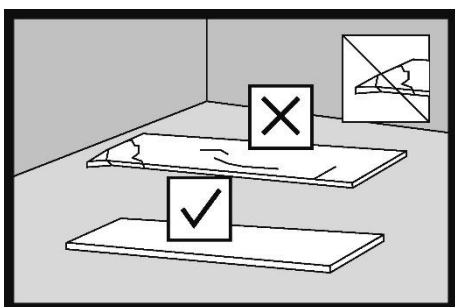
9.

Recommended tools and materials for floor installation:

- Safety glasses
- Vacuum cleaner or broom
- Knee pads
- Protective gloves
- Non-rebound hammer
- Expansion wedges
- Tape measure
- Wooden block for tapping
- Pencil
- Electric saw
- Spirit level
- Cutting knife
- Tape for gluing the underlay
- Underlay for panels (adhesive optional)

We do not use underlay in the adhesive installation system. We use adhesive and primer. Use the recommended adhesive system to glue the floor.

For more information, visit barlinek.com



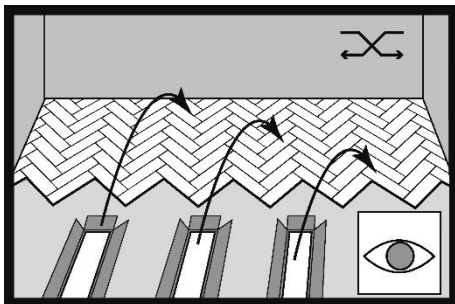
10.

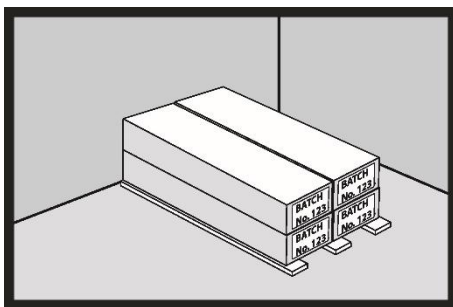
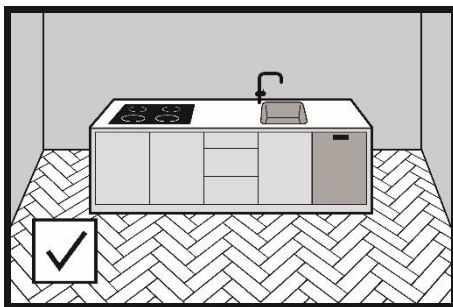
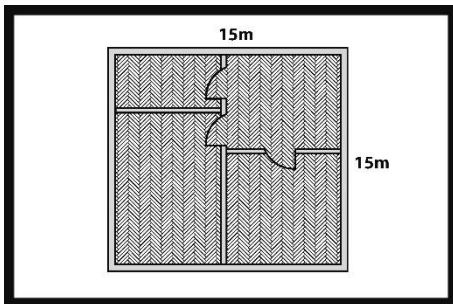
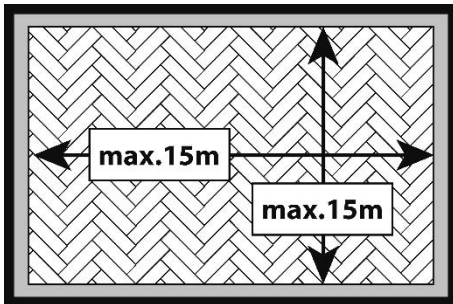
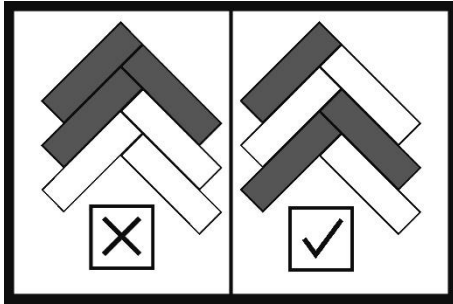
Before installation, the investor or installer should inspect the SPC panels and check that they comply with the order. The panels should be checked for quality, finish, gloss, colour and mechanical damage (information on the product type can be found on the label, instructions or product card). If in doubt, the investor or installer should not use any SPC panel that they consider unsuitable for installation and should contact the seller immediately. Installation of a damaged SPC panel that does not comply with the order, has visible defects or unacceptable visual characteristics will result in the loss of the warranty.

11.

During installation, panels from several packages should be used, selecting them appropriately in terms of colour to achieve a balanced visual effect of the floor.

When ordering flooring, order approx. 5% more panels than the measured floor area. Where there are many corners in the room or obstacles, SPC panels are installed diagonally across the room or at joints with ceramic tiles, and an approx. 10% surplus may be necessary.





12.

The maximum dimensions of a house/flat floor plan for which SPC flooring laid in a floating manner does not require expansion joints in doorways are 15m×15 m. For dimensions up to 15m x 15m, we do not make expansion joints in doors or passages to adjacent rooms. We make expansion joints around walls and structural elements such as stairs and columns.

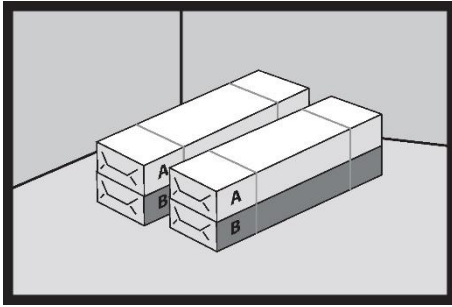
13.

Heavy objects such as kitchen islands and furniture can be placed on floors installed using a floating or adhesive system without the need for expansion joints around the fixtures. However, it is necessary to make a perimeter expansion joint around fixed elements connected to the floor of the island, e.g. plumbing. We always install wall expansion joints regardless of the installation system chosen.

14.

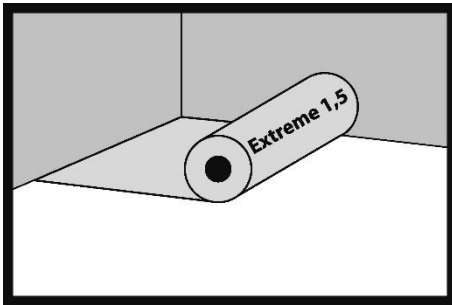
Before installation, verify the color consistency of the material. The technology used is designed to faithfully reproduce the unique characteristics of natural wood, so slight variations in shade and texture of individual elements are acceptable.

Installation of SPC panels in a floating system



15.

Each double pack for classic herringbone installation contains two packs of panels: right-hand panels marked with the letter "A" on the pack and left-hand panels marked with the letter "B" on the pack.



16.

Lay out the underlay for the panels. Adjacent strips of underlay should be installed tangentially to each other. For floating installation, use underlay with the following parameters:

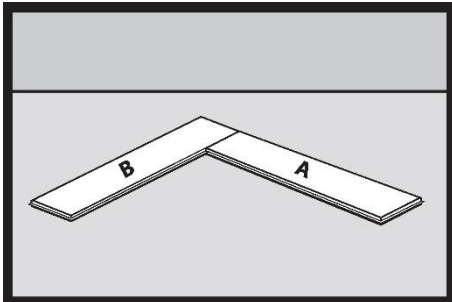
CC – long-term static loads ≥ 90 kPa

CS – short-term load ≥ 400 kPa

DL – dynamic load $\geq 4,000,000$ cycles

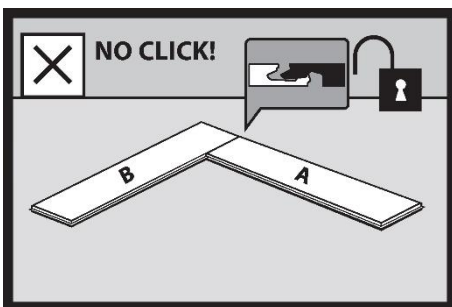
It is important that the underlay is able to withstand various types of loads throughout its entire service life. The use of underlay with lower parameters results in faulty floor installation and loss of warranty.

Barlinek offers a dedicated Extreme 1.5 underlay that meets the specified technical requirements.



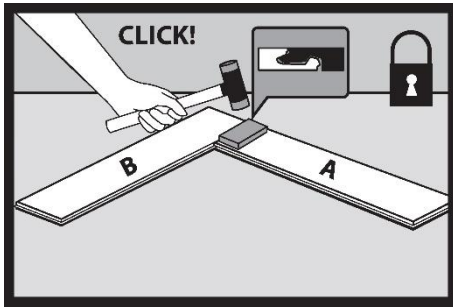
17.

Start installing the herringbone pattern from the left side of the room to the right. Always make sure that you have the grooves (lock joints) on the longer sides of both boards B and A in front of you.



18.

The connection of the locks of two boards on the short side does not mean that the lock has been fastened.



19.

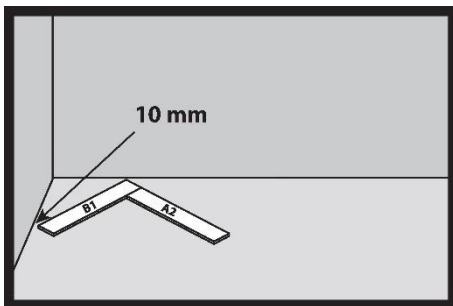
The lock is fastened by striking the lock connection several times with a hammer.

When the lock is properly fastened, the top layer of the panels should be flush, and there should be no visible difference in level between the connected elements.

Important!

Use a non-rebounding hammer, e.g. a sand hammer, for tapping.

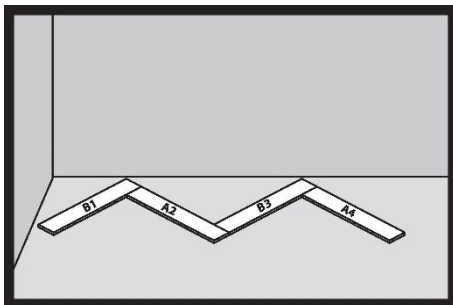
To connect the panels correctly, each short edge should be tapped with a wooden block and a hammer applied from above.



20.

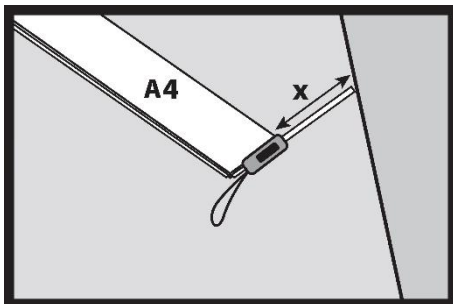
The order and arrangement of the first two panels is very important.

Add the left panel (B) first (1). The right panel (A) is installed second (2). The corner of panel B1 should be 10 mm away from the wall (expansion gap). This is very important and will affect the correct installation.



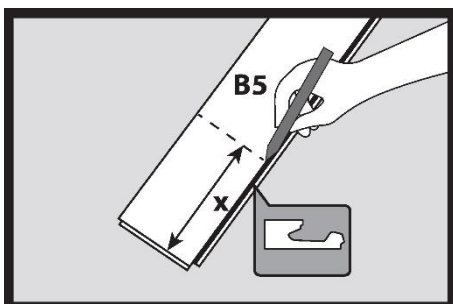
21.

Install the next panels in the order B3 and A4. Remember to tap the short edge of the lock with a non-rebounding hammer.



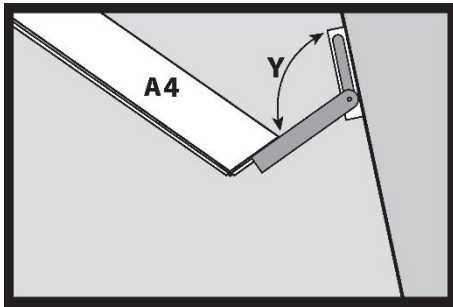
22.

Begin installation of the last panel by measuring the distance X from the corner to the wall.

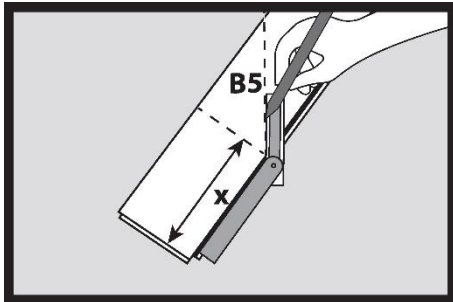


23.

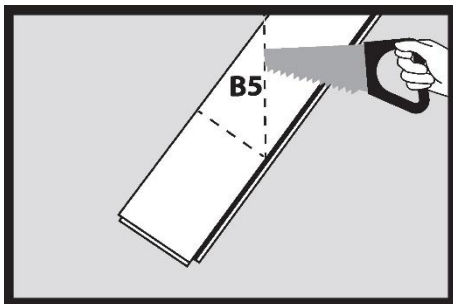
On the last panel (in this case B5), measure the distance X minus the 10 mm expansion gap.



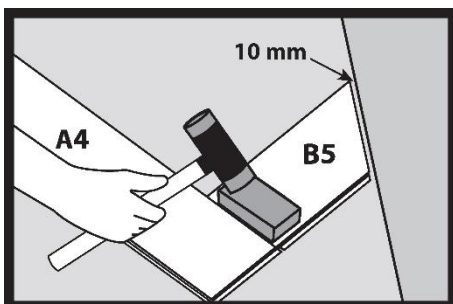
24. Using an adjustable angle bracket, measure the angle Y between the short edge of the panel and the wall.



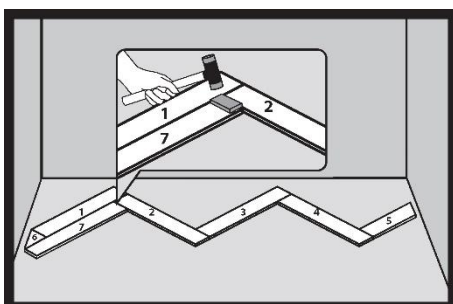
25. Transfer the measured angle Y to panel B5 and mark the cutting line.



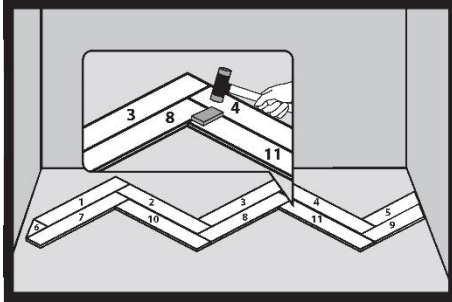
26. Cut the SPC panel using a hand saw or power saw.



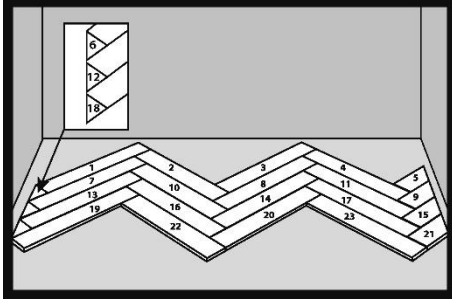
27. Connect the panel cut to the correct length with locks. Remember to tap the lock connection with a hammer. When installed, a correctly cut panel will have a 10 mm expansion gap from the wall.



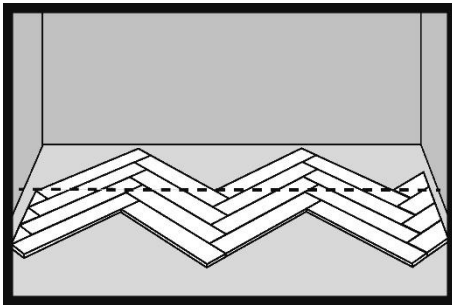
28. To connect the panels correctly, each short edge should be tapped with a tapping block and a hammer applied from above.



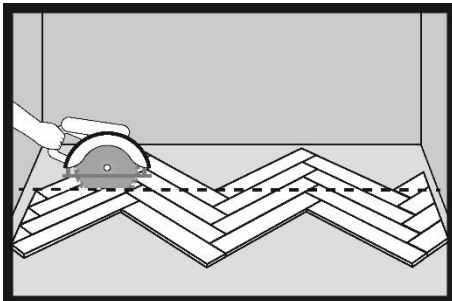
29.
Place the mallet on top of the panel, right at its edge.



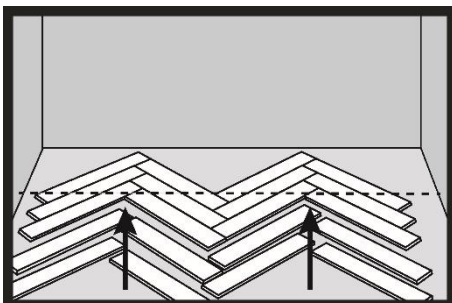
30.
After installing the first herringbone strip, install the next panels. The installation order is very important. The drawing shows the correct installation order.



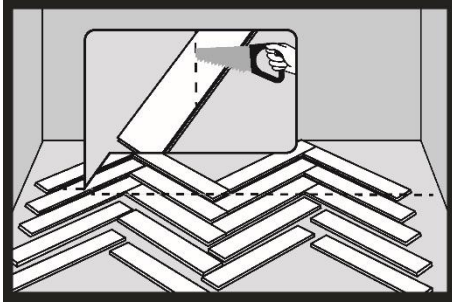
31.
After installing four rows of SPC panels, mark the cutting lines parallel to the wall. The line runs from the corner on the left to the right.



32.
Cut the installed SPC panels with an electric saw with adjustable cutting depth.

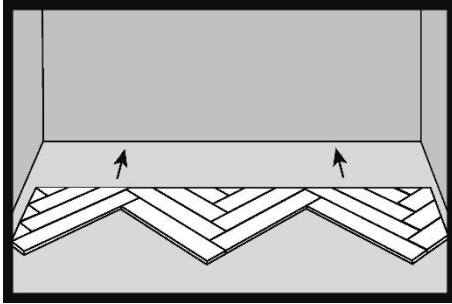


33.
If you do not have an electric saw with adjustable cutting depth, you can use a hand saw. Unfasten all installed herringbone rows. The direction of unfastening is indicated by arrows.



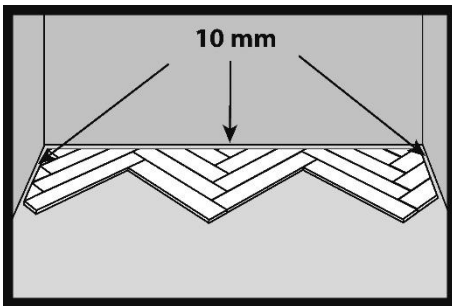
34.

After unsticking the floor, cut the individual panels along the drawn line. Place the cut panels together to form a single surface.



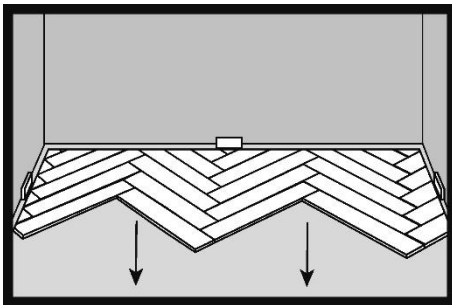
35.

Regardless of how the SPC panels are cut, move the entire floor section towards the wall.



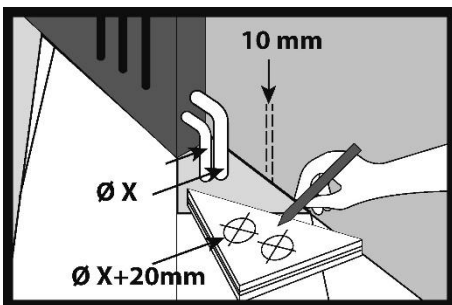
36.

Remember to leave a 10 mm expansion gap on each side.



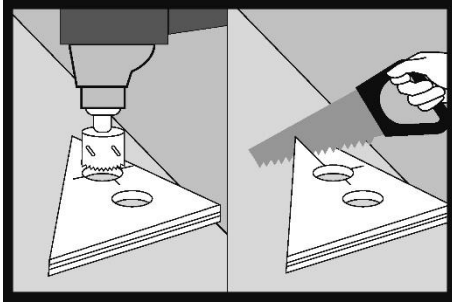
37.

Install the remaining SPC panels in the same order as the first four rows of flooring.



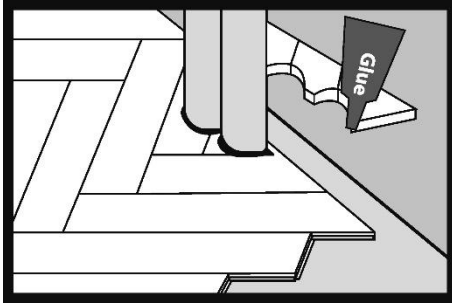
38.

When installing the floor near pipes, cut holes with a diameter 20 mm larger than the pipes. This will allow for a 10 mm expansion gap around the pipes.



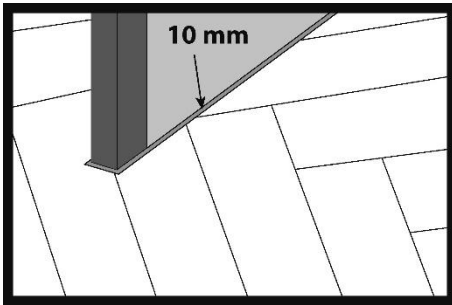
39.

Use wood drill bits to cut the holes. Cut the panel along the diameter of the holes.



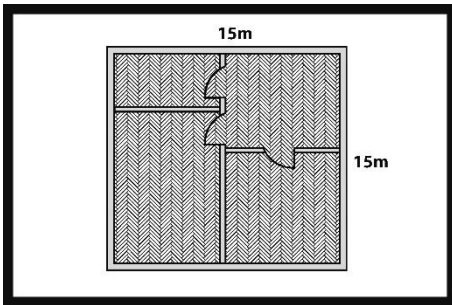
40.

Glue the cut piece of board back in place using assembly adhesive.



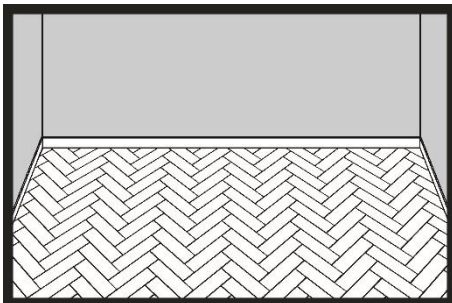
41.

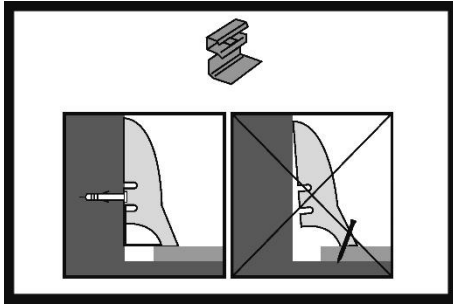
The maximum dimensions of the floor plan of a house/flat at which SPC flooring laid in a floating manner does not require expansion joints in doorways are 15 m × 15 m. For dimensions up to 15 m × 15 m, we do not make expansion joints in doors or passageways to adjacent rooms. We make expansion joints around walls and building elements such as stairs and columns.



42.

After installing the entire floor surface, decorative skirting boards should be installed. The skirting boards are attached only to the walls, using mounting clips or mounting adhesive.





Installation of SPC panels using an adhesive system

43.

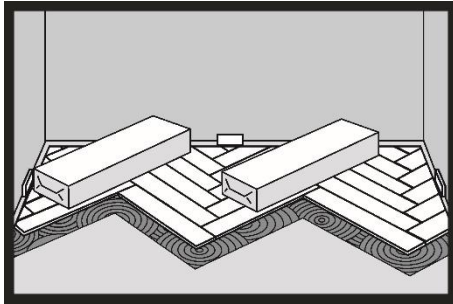
For adhesive installation of the floor, use the recommended adhesive system described on the barlinek.com website.

Use dedicated adhesives when gluing SPC panels to the substrate.

In order to effectively glue the elements, when selecting a spatula, take into account the type of adhesive used and any unevenness in the substrate

- SPC panels – bonding with recommended adhesives; information available at barlinek.com
- Check the hardness of the screed with a Ri scratch tester – Ri spring tension in the lower position.
- Screeds must be sanded – sand anhydrite screeds until the grain becomes visible.
- When bonding to anhydrite screed, priming is essential

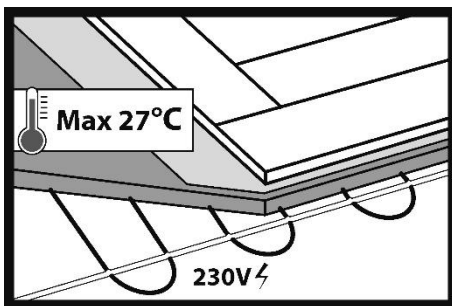
Self-levelling compounds – use CT (cementitious) compounds with minimum strength parameters of C25, F6.



44.

After installing several rows, press down on the floor with heavy objects (e.g. unused packs of panels).

Installation of SPC panels on underfloor heating



45.

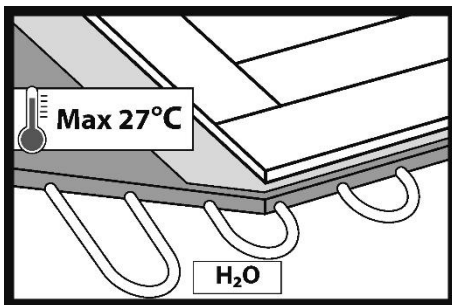
SPC floors can be installed on water or electric underfloor heating in a floating or adhesive system.

Important!

Before laying panels on underfloor heating, the screed must be heated and preparing a heating report - . This only applies to new, unheated screeds.

Information on screed heating and the report are available at barlinek.com. The screed heating process should also be carried out in the summer.

When installing the floor with adhesive, use the recommended adhesive system. For more information, visit barlinek.com

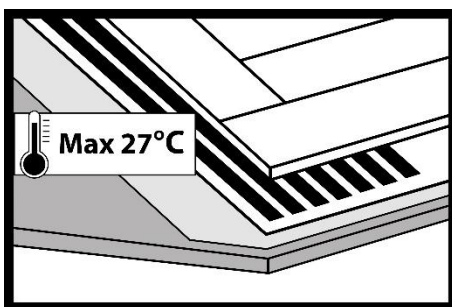


Important!

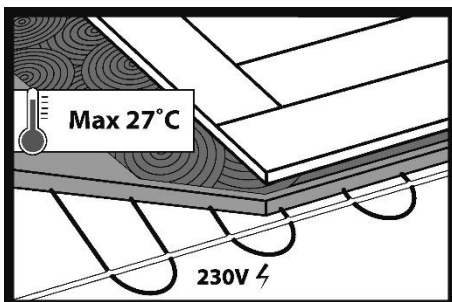
In the adhesive installation system, only SPC panels without an integrated underlay can be used.

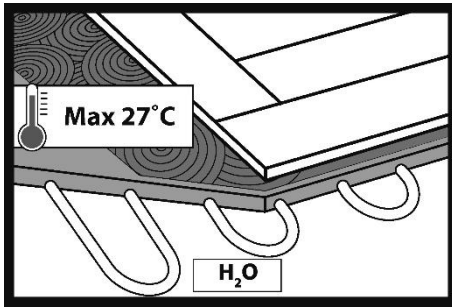
The limit above which the heating should not be set is 27°C on the surface of the panels.

The moisture content of the screed in the case of installation on underfloor heating should not exceed: 1.5% CM for cement screeds 0.3% CM for anhydrite screeds.



In order to prevent uneven operation of the panel core, the entire floor surface should be heated. If there are two or more heating loops in one room, the set temperature difference between the loops must not exceed 5 °C. This also guarantees the greatest comfort of use (no colder spots on the floor).





The installation of SPC floors on heated floors using an adhesive system does not require the use of expansion joints between heated surfaces and surfaces without underfloor heating. The underfloor heating system should not be started up until at least 48 hours after the installation of SPC flooring. When using SPC flooring on floors equipped with underfloor heating, it should be remembered that the evaporation of any liquids spilled on the floor surface may be accelerated. Therefore, any stains caused by liquids such as wine, urine, milk, etc. should be removed from the floor surface as soon as possible, as drying on the surface of SPC panels may cause permanent discolouration of the floor. The height of the screed overlay above the heating elements should be at least 20 mm.

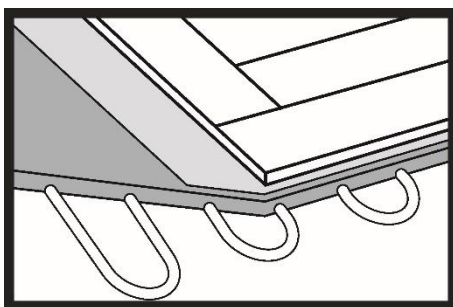
Installation on heating foils – infrared mats:

- underlay – minimum 4 mm thick, well insulating – usually XPS with $CS \geq 400$ kPa; the thickness of the underlay should allow for the placement of connectors and cables;
- heating foil;
- vapour barrier or construction foil;
- SPC flooring;

It is necessary to use controllers and floor temperature sensors. For installers – the use of thermal seals is recommended.

Furniture placed on underfloor heating, e.g. sofas, should have legs at least 10 cm high.

Installation of SPC panels on underfloor cooling systems



46.

It is very important that underfloor cooling is equipped with appropriate control systems that prevent water vapour from condensing on the floor surface. To prevent this, the temperature of the cold water in the pipes should not fall below a certain value. Each room with an underfloor cooling system should be equipped with a sensor that calculates the relationship between relative air humidity and the temperature on the surface of the floorboard and cuts off the cold water supply before the so-called dew point is reached, i.e. water vapour condenses on the surface of the panels.

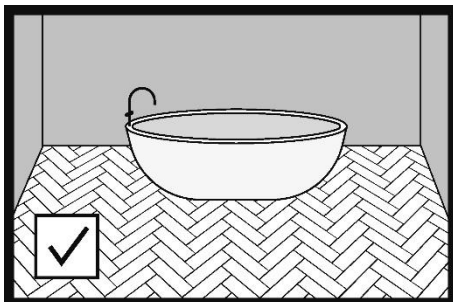
Thermostats in rooms should not be set to a temperature lower than 23°C. In addition, the difference between the thermostat temperature and the room temperature should not exceed 5°C. Example: room temperature 30°C, thermostat temperature set to min. 25°C.

The underfloor cooling system should be protected against the water temperature in the system falling below +18°C.

The maximum thermal resistance of the installed floor must not exceed $R \leq 0.15 \text{ m}^2 \text{ K/W}$. In order to achieve the minimum thermal resistance value of , Barlinek recommends using an adhesive floor installation system or a sub-floor underlay with a very low heat loss coefficient: Barlinek offers the EXTREME 1.5 underlay.

- 48 hours before installing the floor, switch off the underfloor heating. After installing the floor, it can be switched on again after 48 hours.
- The moisture content of the cement screed should be a maximum of 1.8% and that of the anhydrite screed 0.3%. Measurements should be taken using the carbide method, known as CM.
- The remaining installation and usage parameters are in accordance with the installation instructions, terms of use and care of SPC floors. For more information, visit barlinek.com
- The decision on the possibility of using underfloor cooling requires a heat balance to be drawn up, which should be done at the design stage. Omitting this stage may lead to the incorrect selection of equipment and insufficient performance of the entire cooling system.

Installation of SPC panels in a damp room



47.

SPC panels can be installed in bathrooms and other rooms where water spills may occur.

- In such rooms, we recommend using an adhesive installation system. In this case, the size of the perimeter expansion joint can be reduced to 3 mm. If SPC panels are glued in other rooms, there is no need to make an expansion gap in the door frame. If SPC panels are installed as a floating floor in other rooms, an expansion gap of at least 5 mm (adjusted to the

type of masking expansion strip) must be made in the door frame.

Use the recommended adhesive system to glue the floor.

For more information, visit barlinek.com

- When installing SPC panels in a floating system in bathrooms, an expansion gap of at least 5 mm (adjusted to the type of expansion gap cover strip) must be made in the door frame. The expansion gap can be filled with a flexible filler. With a floating installation system, always make a 5 mm wide expansion gap around the perimeter. Regardless of the installation method in other rooms, the bathroom floor should be separated from other rooms by an expansion gap.

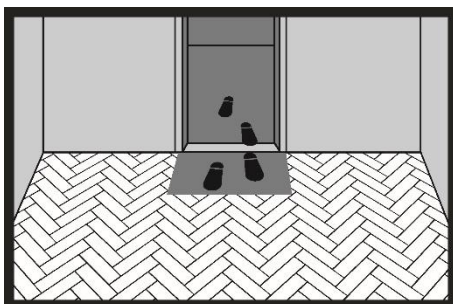
- In a bathroom with underfloor heating, regardless of the installation method chosen (floating or adhesive), an expansion gap should be made in the door frame to separate the bathroom from other rooms.

It is essential to use expansion joints around walls, shower trays, bathtubs, toilet bowls and other obstacles permanently attached to the floor.

Important:

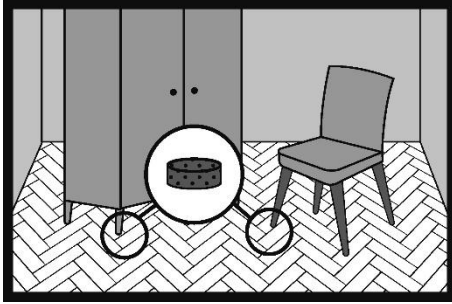
SPC panels must not be installed in shower trays, bathtubs, saunas, swimming pools and other similar places.

Care and use of SPC panels



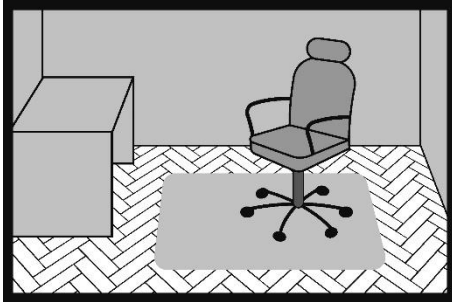
48.

Doormats should be placed at the entrances to the flat to effectively prevent sand, soil and water from being brought in on footwear. Protect the floor by using mats outside and/or inside all entrances. The mats will collect dirt, sand, pebbles and other solid particles and absorb moisture. Keep the mats clean. Do not use mats with latex or rubber backing on SPC flooring, as some compounds in these materials may permanently stain or damage the panel. Mats for use on SPC panels should be labelled "non-staining".



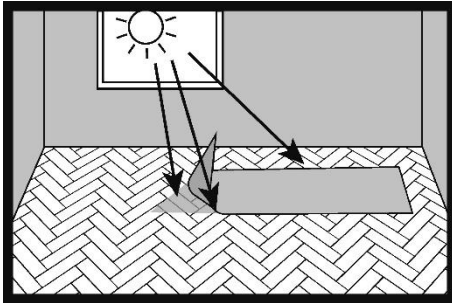
49.

All furniture and other appliances that come into contact with the floor should be equipped with protective pads, e.g. felt pads, which should be replaced regularly.



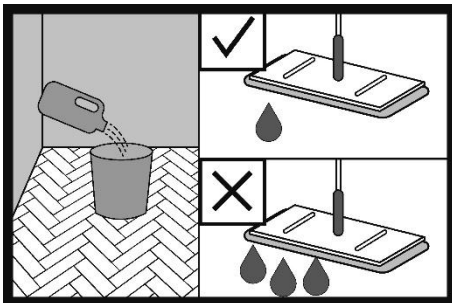
50.

Armchairs and other furniture equipped with hard plastic castors should be used on plastic protective mats. If protective mats are not used, the castors should be replaced with ones designed for hard floors, type W.



51.

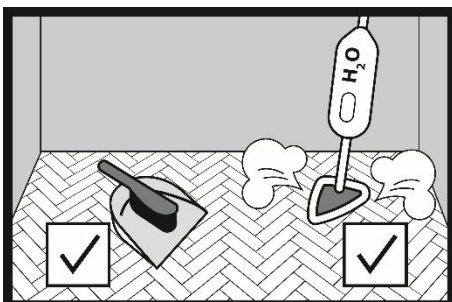
Flooring exposed to sunlight (UV light) will change its original colour.



52.

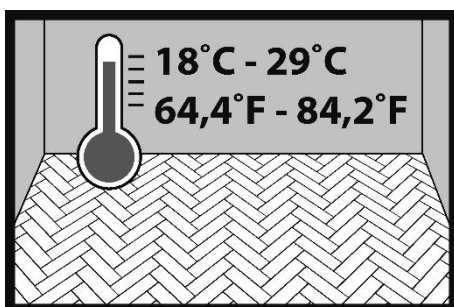
The floor is factory finished and ready for use immediately after installation. Floor care should only be carried out using products designed for this purpose. Instructions for caring for SPC floors can be found at barlinek.com

- Never use vacuum cleaners with brushes that could damage the floor.
- Remove any water spills immediately.
- Vacuum or sweep the floor to remove any particles that could scratch it.
- You can use a damp cloth with or without the recommended floor care product. Do not leave wet marks on the floor after cleaning.
- Do not use high-pressure or steam cleaners to clean the floor.
- Trim your pets' claws to prevent damage to the floor.
- Do not move heavy furniture or equipment across the floor.
- The use of floor care products other than those recommended by Barlinek may



cause damage to the varnish layer, changes in colour and gloss, and the formation of stains.

- Do not use wax, paraffin or silicone-based products.
- For daily care, we recommend dry cleaning (vacuuming, sweeping).
- Clean the floor with a mop, along the panels.



53.

During use, the room temperature should be between +18°C and +29°C.

IMPORTANT

The Terms and Conditions of Use and Care of SPC Floors and the SPC flooring warranty terms and conditions.



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