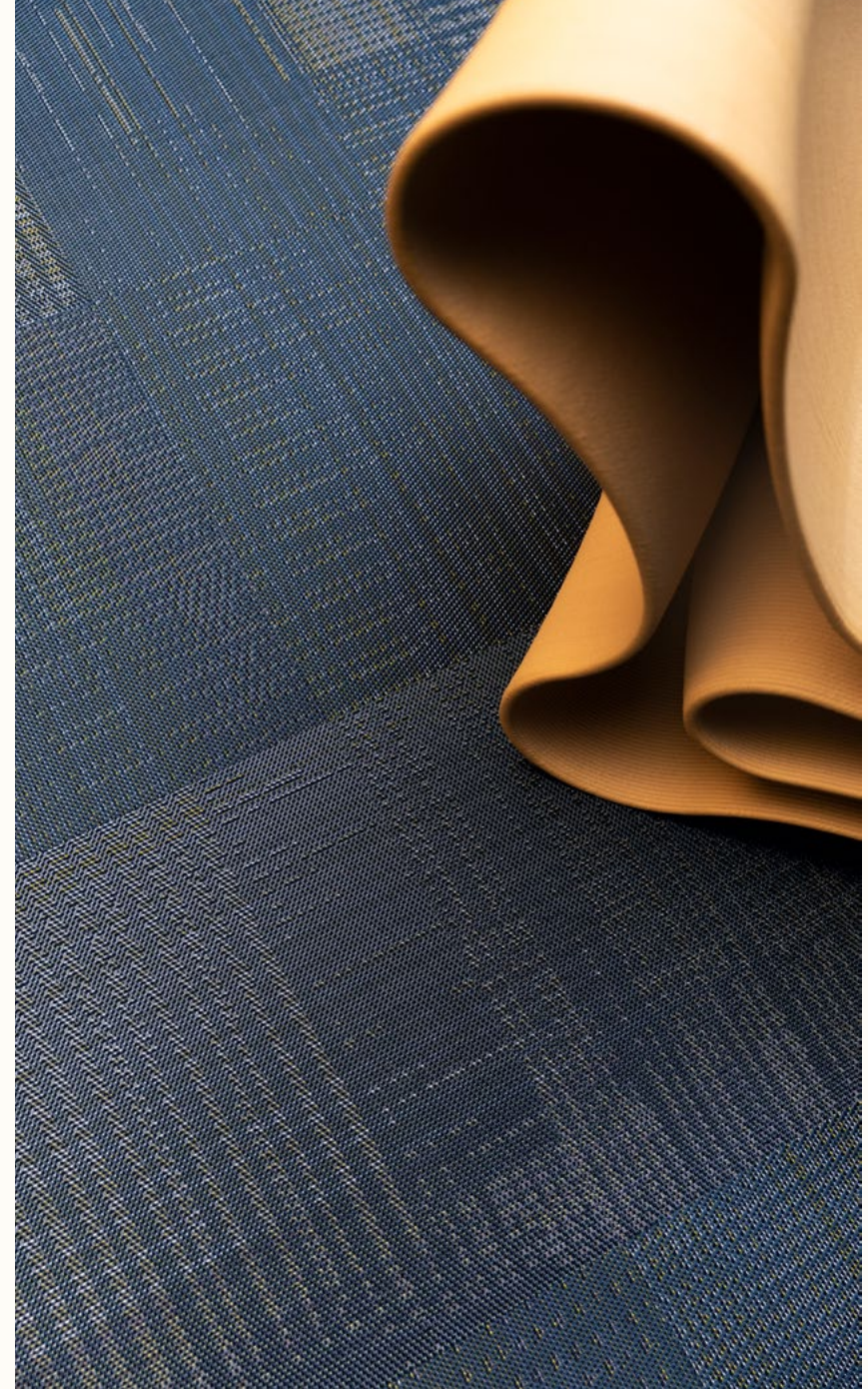




INSTALLATION
ACOUSTIC TILES

BOLON





Dear Customer,
the following instructions will help you realize a beautiful and durable Bolon Woven Design Flooring.

Index

4 GENERAL CHECKING & PREPARATION OF THE SUBFLOORS

- 5 CONTAMINANTS
- 5 CRACKS
- 5 INSUFFICIENT SURFACE STRENGTH
- 5 PRIMER
- 6 UNDERFLOOR HEATING
- 6 SURFACE IRREGULARITIES
- 6 CLIMATIC CONDITIONS
- 7 MOIST SURFACES

8 INSTALLATION METHODS & INSTRUCTIONS

10 STEP-BY-STEP PROCEDURE

12 GUARANTEE

13 MISCELLANEOUS



OK FRIENDS,
LET'S DO THIS!



General checking and preparation of the subfloors

Before starting work, it is essential to check the subfloors. In general, the subfloors should be checked according to country-specific standards or regulations, which may include the following assessment criteria:

- Are the subfloors contaminated, for example by oil, wax, lacquer or paint residues?
- Are there cracks in the subfloors?
- Are the subfloors sufficiently firm, form-retaining and pressure-resistant?
- Are the subfloors dry enough?
- Are the surfaces of the subfloors porous or rough?
- Are any areas very uneven?
- Are the heights of the subfloors correct in relation to the adjacent building elements?
- Is there a heating protocol available?
- Are there suitable climatic conditions, i.e., temperature of the subfloors and rooms and room humidity?

If defects are discovered during the inspection of the subfloors, these must be reported to the client in writing.



INSUFFICIENT SURFACE STRENGTH

Sufficient surface strength is a very important condition for the long-term functionality of installed Bolon flooring. The surface of the substrate must form a solid construction together with the other building elements. This is tested with the so-called “scratch test” or by means of tensile tests (adhesive tensile strength measurement). If, following the measurement, the value of the tensile strength appears to be less than 1N/mm², it is necessary to reinforce the surface. In the case of a new screed, insufficient surface strength may be caused by insufficient binder (cement or gypsum) in relation to the gravel/sand used in construction. Measurement must always be performed by a trained professional who can provide the right recommendations for how to increase surface strength with primer and leveling compound.

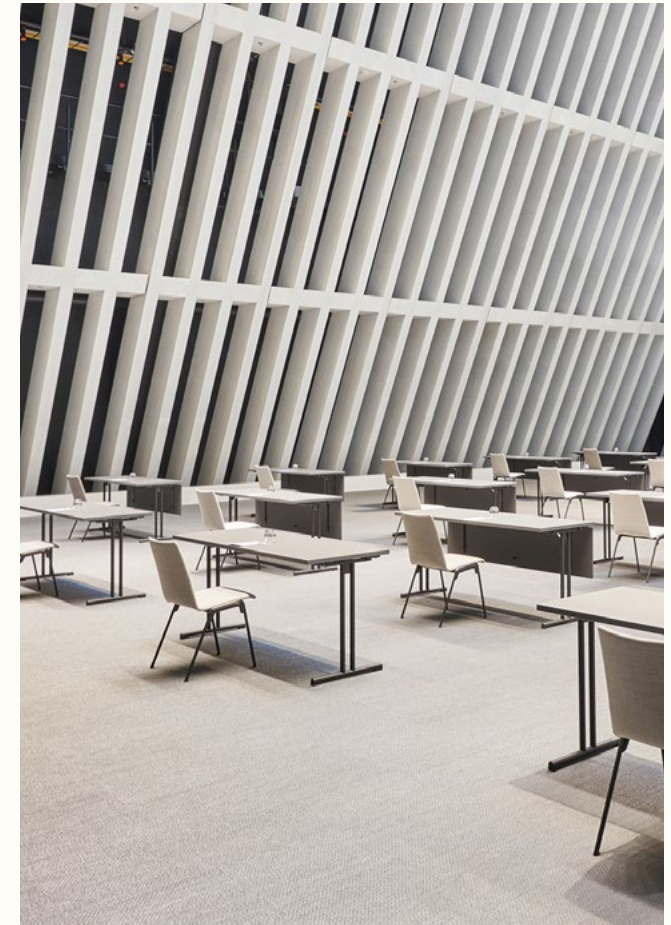


CONTAMINANTS

Impurities (e.g., oil, wax, old adhesive or leveling compound residues, paint residues, etc.) must be removed from the subfloors because they reduce the adhesion of the materials to be applied, such as glue, primers and leveling compound. Under certain circumstances, this can cause the leveling layer to peel off. Prior to preparation and the installation of Bolon flooring, the floors must also be cleaned with an industrial vacuum to ensure they are dust-free.

CRACKS

Any cracks or false joints in the subfloor must be firmly sealed before installation begins. False joints are deliberately placed in the floor. Cracks are a form of damage and can have various causes. In both cases, the separated floor parts must be bonded back together to prevent them from moving independently of each other, which can lead to visible marks on the floor covering. Structural expansion joints must be respected and cannot be closed. It is therefore necessary that these joints are covered with a suitable profile.



PRIMER

Before laying Bolon flooring, a leveling compound must be applied. For this, the subfloors must always be sufficiently and evenly absorbent. The absorbency should be determined by a water drop test. By applying a primer that is adapted to the absorption capacity of the subfloor, the risk of pinholes and so-called elephant skin is reduced. The application of a primer is thus an absolute necessity, as it prevents the mixing water from being extracted from the leveling compound too quickly. Good substance binding improves the adhesion of the leveling compound to the subfloor.

UNDERFLOOR HEATING

Floor heating is increasingly being used in renovation projects. Slots are milled in the floor into which PVC pipes are then laid. These pipes usually lie about 2 mm below the surface of the screed. A uniform and solid surface is essential to the responsible and sustainable installation of Bolon flooring. The channels must be filled with special sealing compound intended for this purpose. After filling the channels a special primer should be used for ideal adhesion. Then level the layer to a thickness of approx. 3–5 mm. This ensures the floor is sufficiently flat, smooth and compressive for the installation of Bolon flooring. This layer thickness also ensures good heat distribution. Pipes must be laid so that the flooring material is not continuously exposed to temperatures higher than 30°C, as otherwise discoloration and other changes to the material can occur. Make sure the heating protocol is followed.

SURFACE IRREGULARITIES

Bolon floors should always be placed on completely level, smooth and flat subfloors in which there is no movement whatsoever. This prevents irregularities in the surface of the Bolon flooring. During leveling, a leveling compound is applied. To ensure maximum absorbency and self-levelling properties for bonding, a layer thickness of at least 2 mm is recommended, depending on the type of subfloor and type of leveling compound. The leveling must therefore take two properties into account: the best flow with the greatest possible absorption capacity.

CLIMATIC CONDITIONS

When installing Bolon flooring, adhesive and subfloors must be brought to the installation area at least 48 hours prior to installation. This gives these materials the chance to achieve a room temperature of 18°C–25°C. When Bolon flooring has been delivered in boxes placed on a pallet, be sure to remove the boxes from the pallet and spread them out in a single layer across a level surface. The relative air humidity must be 30–60 %. Higher levels of air humidity result in longer drying times and a risk of blistering. Due to the setting, drying and reaction times of the installation materials, the specified climatic conditions in the room must be observed before, during and up to 7 days after the completion of the floor covering work.





MOIST SURFACES

Before installation, check whether the surface is sufficiently dry. Excessive humidity in the subfloor is a common cause of damage. That is why measuring the moisture percentage is very important. A first indication is the period between the delivery of the subfloor (concrete or screed) and the moment at which the installation of the floor covering is started. The longer the period between the completion of the concrete or screed floor and the installation of the floor finish, the greater the chance that the subfloor has reached its equilibrium moisture content. Different subfloors have different drying times, depending on their composition.

The most used measurement method to determine the residual moisture in cement or calcium sulphate screeds is the CM measurement (calcium carbide method). In this method, a hole is tapped into the screed with a hammer and chisel. Be careful with heated constructions; the heating pipes must not be damaged. In the case of a screed with underfloor heating, the installer of the screed can mark the measurement point by means of a flag. No heating pipe may run within a radius of 10 cm around the marked point.

Thresholds CM measurement divided according to the amount of test material

| Type Subfloor | Quantity of test material | Moisture percentage |
|--------------------------------|---------------------------|---------------------|
| Cement screed | 50 g | <2,5% CM |
| Calcium sulphate bonded screed | 100 g | <1,0% CM |

Moisture measurements on concrete subfloors are usually determined using a moisture sensor according to the so-called hygrometric method. We normally assume that concrete with a relative humidity (RH) lower than 85% or lower than 2.5% CM value can be classified as ready for installation. If the RH is higher than 85% and/or higher than 2.5% CM value, solutions are available in the market to still continue the job. Always contact a technical advisor for the job in question as every project is different.

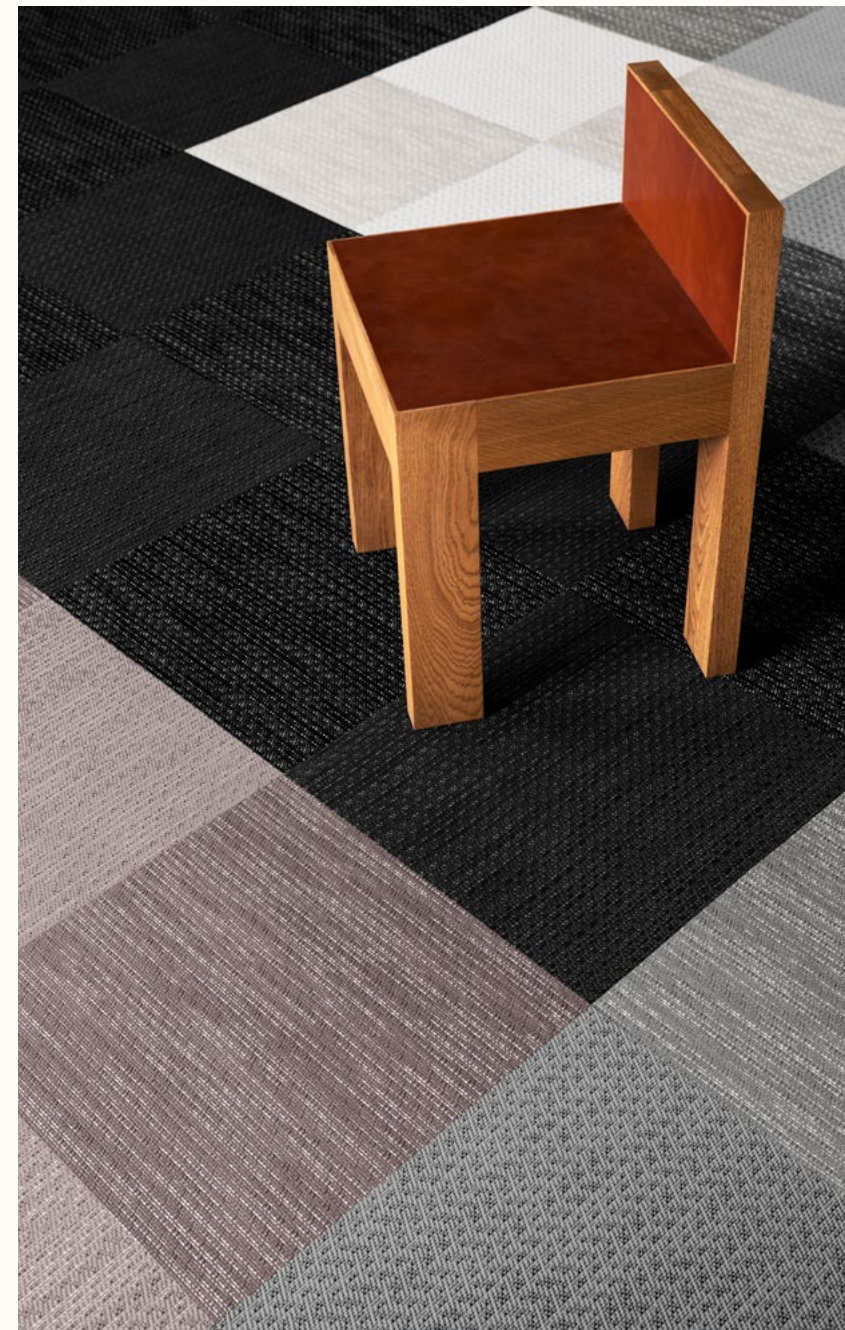


Installation methods and instructions

INSTALLATION METHODS ACOUSTIC TILES 50 X 50 CM (RECYCLED FELT BACKING)

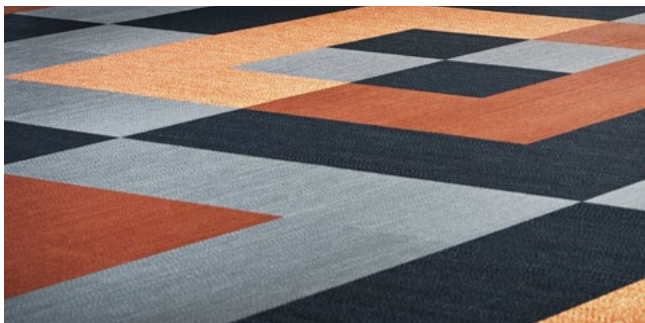
| Installation methods | Bonding | Suitable applications | Recommendations by suppliers |
|----------------------------------|--|---|---|
| Removable and replaceable | Tackifier: Use tackifier compatible for vinyl | On most prepared sub-floors including raised access floors | Uzin: U2100 / U2500 Mapei: Ultrabond Eco Tack4LVT / Eco Fix Thomsit: K145 / T425 Schönox: Multifix |
| Removable and replaceable | Dry adhesive: Double-sided self-adhesive tape | On most prepared sub-floors including raised access floors with the exception of metal raised access floors | IOBAC: Tab-its |
| Removable and replaceable | Magnetic: Magnetic on one side and dry-tack on the other side | Metal raised access floors | IOBAC: Magtabs |
| Permanent | Adhesive: Use adhesive compatible for felt | On most subfloors with the exception of raised access floors | Uzin:KE2000S Mapei: Ultrabond Eco 380 / Eco VS90 Plus Thomsit: K188S / T410 |

PLEASE NOTE: Although Bolon may suggest a selection of manufacturers of adhesive or non-adhesive products, we do not guarantee the products listed. The list of products and manufacturers are not guaranteed to be complete or current. Bolon will not accept any liability for the failure of any of these products to perform optimally with any Bolon products. It is the responsibility of the adhesive manufacturer and flooring contractor to ensure that the products used are appropriate for the application in question and applied in accordance with the manufacturer recommendations.



Step-by-step Procedure





LAYING PATTERNS WITH 50 X 50 CM BOLON TILES

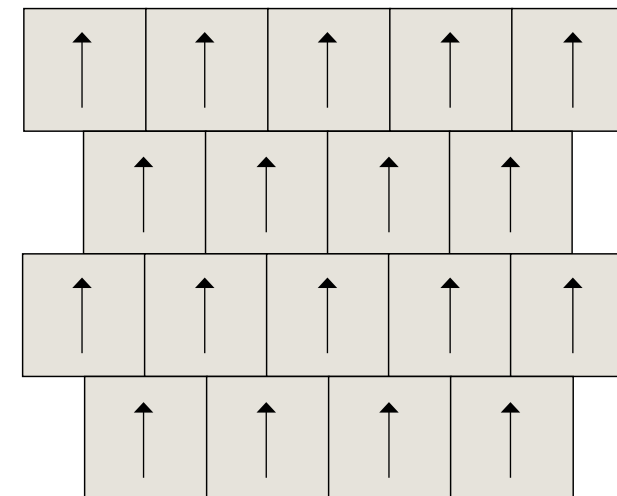
Printed on the back of each Bolon 50 x 50 cm tile is an arrow. These arrows are a guide for the laying pattern. Among the various possibilities, we recommend the following two laying patterns:



- 1** It is usual to begin installation from the middle of the room, working your way outwards. In corridors and small rooms, it may be simpler to work from one side to the other and use the centre line as a guide.
- 2** The centre line can be drawn out as follows: Draw a line from the midpoint between two of the walls. Then draw a second line perpendicular to the first, forming a cross. To ensure the lines are perpendicular, the 3:4:5 method can be used.
- 3** Start installing the 50 x 50 cm Bolon tiles at the centre point. Work outwards from the first tile, creating a triangle. Continue in this way until the first quarter of the floor is complete. Be careful to follow the guidelines and ensure that the Bolon tiles 50 x 50 cm fit closely together. If the first tiles do not follow the guidelines, this will affect the entire process. When using a tackifier, only roll it out over an area that can be covered with 50 x 50 cm Bolon tiles while the tackifier retains the right consistency.
- 4** As it takes more time to cut the edges of 50 x 50 cm Bolon tiles than it does to simply instal whole 50 x 50 cm Bolon tiles, it may be best to start with the area where complete tiles will be laid. After this, the sides can be finished with the custom-cut 50 x 50 cm Bolon tiles.
- 5** After installation, run a joint roller over all joints lengthways and crossways, with a minimum pressure of 75 kg.

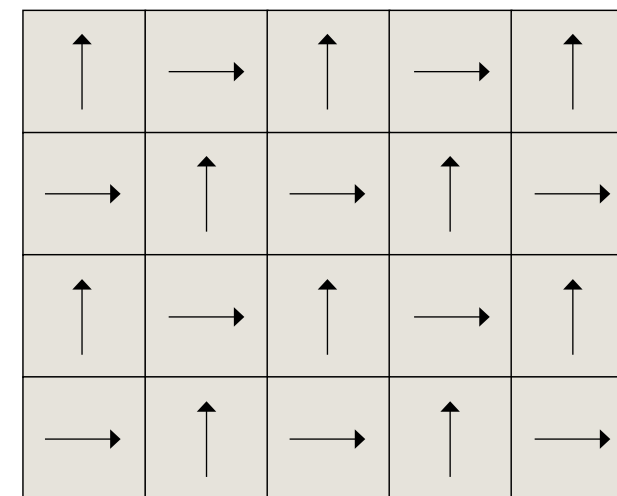
BRICK LAY

In this laying pattern, the tiles are laid so that the arrows on the back all point in one direction, while the length seams of the second row are shifted by 25 cm.



QUARTER TURN

In this laying pattern, the tiles are laid so that the arrows printed on the back are turned 90 degrees, forming a chequerboard pattern.



Guarantee

The installer should notify the manufacturer of any defective materials before proceeding with the installation. Within the scope of the product guarantees, the manufacturer is responsible for any defective materials. This refers to material defects identified prior to or during installation. Bolon cannot be held liable for poor workmanship or problems resulting from improper installation.

Miscellaneous

- After installation, the floor should be covered with suitable protection against dirt and damage.
- When skirting boards are used, we recommend installing them after the flooring.
- When Bolon flooring is installed on stairs, stair profiles and a permanent installation method must be used - no tackifier or tape.
- Wheels on office chairs must be polyamide (hard type, designed for textile flooring).
- Furniture feet must be made of Teflon, polythene, stainless steel, or a similar material.
- Some types of rubber used in trolley wheels, entrance mats, etc. can cause discoloration in the form of migration. This type of discoloration cannot be removed.
- Since Bolon flooring is a woven fabric with natural structural variations that cause light to reflect in different ways off the surface of the flooring, shades may appear to vary slightly.



If you need help with the installation of your Bolon flooring, do not hesitate to contact us at sales.support@bolon.com