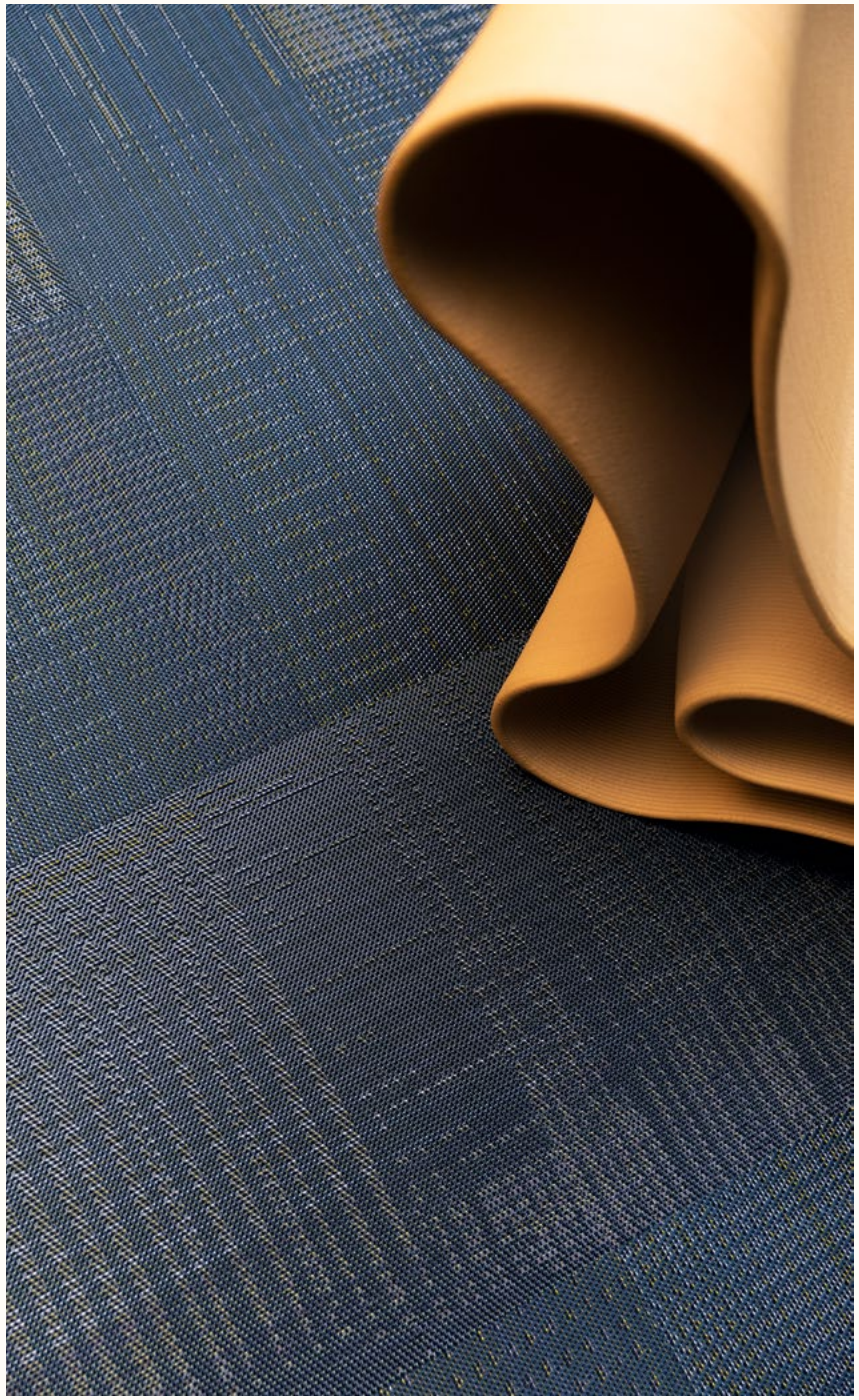


Dear Customer,
The following instructions will help you visualize a beautiful and durable Bolon Woven Design Flooring.

Index


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.

CONTAMINANTS

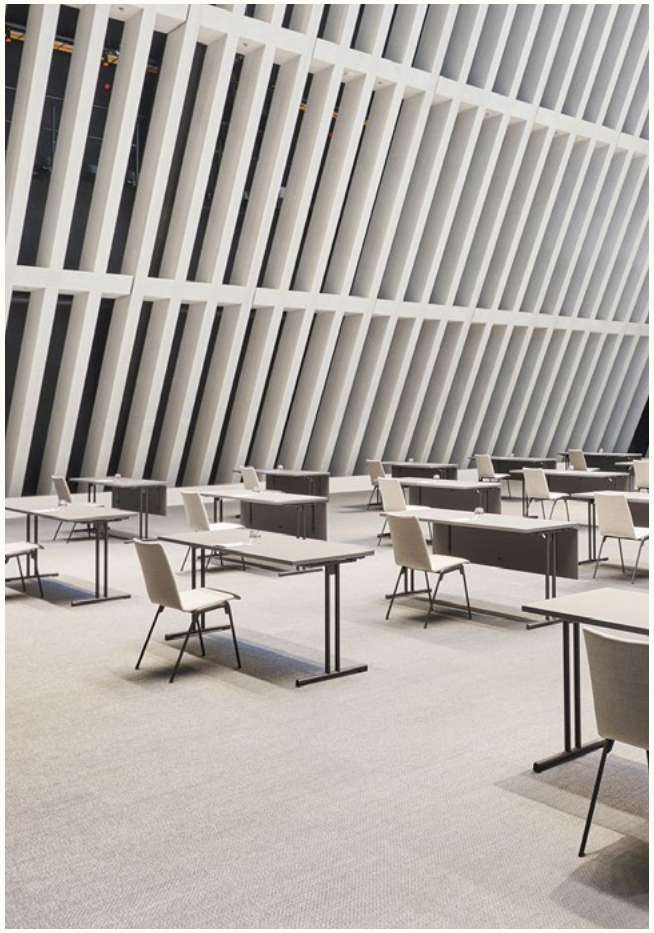
Impurities (e.g., oil, wax, old adhesive or leveling compound residues, paint residues, etc.) must be removed from the subfloors because they reduce the adhesion of the materials to be applied, such as glue, primers and leveling compound. Under certain circumstances, this can cause the leveling layer 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.

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 1 N/mm, 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 specially trained personnel who can provide the right recommendations for how to increase surface strength with primer and leveling compound.



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 elephant skin is reduced. The application of a primer is thus absolutely necessary, 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 pipies 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 discolouration 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 thus 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 measurement method most commonly used 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.

When the RH is higher than 85% or higher than 2,5% CM-value there are solutions in the market to be able to still continue the job.

Always be in contact with a technical advisor for the job in question as every project is different.

Preparation by type of subfloor

Bolon flooring can be installed on a wide variety of subfloors. Each subfloor has a number of special characteristics that should be taken into account.

The materials used must be specially adapted to the type of subfloor and its situation. This is the only way to prevent problems such as an excessively high moisture percentage, irregularities and cracks. Always use preparation materials from a single manufacturer and ask them for an on-site assessment of which materials they recommend, as every project is different.

CONCRETE SUBFLOORS

Concrete subfloors can be considered sufficiently dry when the relative humidity is lower than 85% (measured with a hygrometer", or when the mositure percentage is lower than 2.5% (measured with the calcium carbide method). Above these percentages, it is necessary to apply moisture barriers.

Before installing 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 elephant skin is reduced. Therefore, applying a primer is absolutely necessary. This prevents the mixing water from being extracted from the leveling compound too quickly. The substance binding improves the adhesion of the leveling compound to the subfloor.

Before priming, the subfloor must be sanded and any dust residues be vacuumed off in order to remove all impurities and adhesion-reducing layers. When leveling, a self-smoothing cementitious leveling compound is applied. To ensure maximum absorbency and good self-levelling properties, a layer thickness of at least 2 mm is recommended. After the subfloors have been leveled and dried, they can be sanded and cleaned of all dust particles. Then they are ready for Bolon flooring to be installed on top of them. Always use primers, leveling compounds and glues from the same manufacturer and check with them which materials they recommend for the job in question as every project is different.

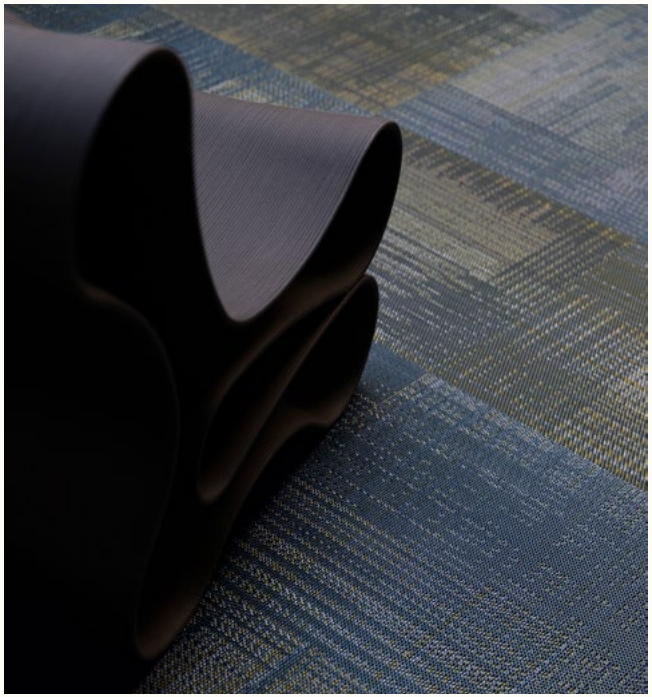
CEMENT SCREEDS

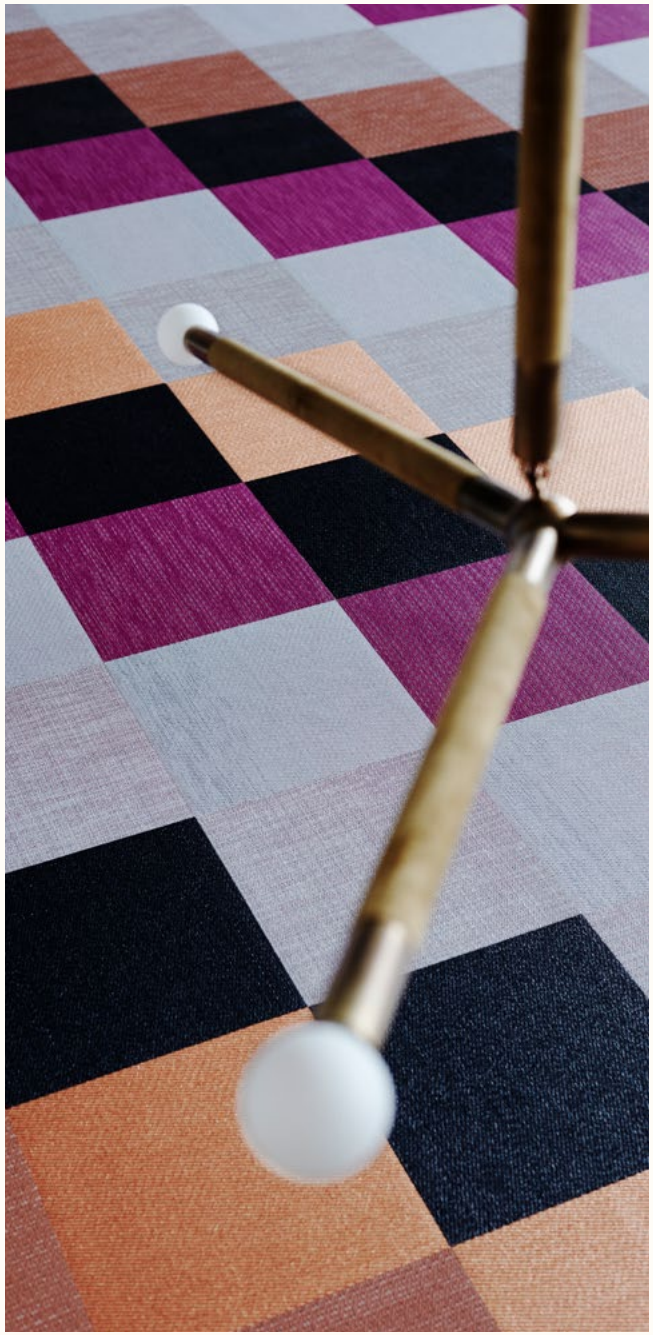
Cement screeds can be considered sufficiently dry when measurements taken with the CM-method (calcium carbide method) result in a moisture percentage lower than 2.5% CM-value. For percentages greater than 2.5% CM, a moisture barrier is necessary.

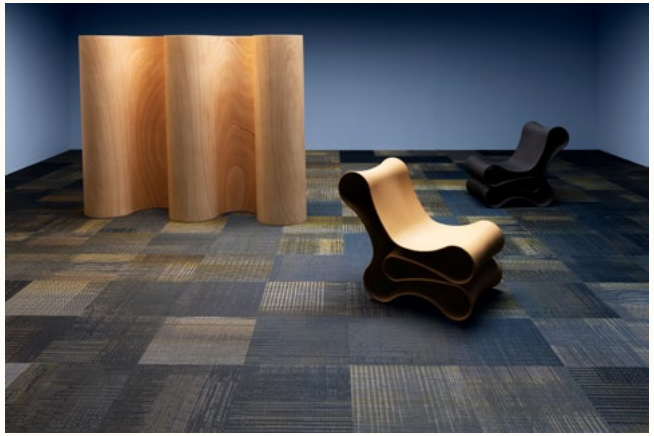
Before installing the Bolon flooring, a leveling compound must be applied. For this, the subfloors must always be sufficiently and evenly absorbent. The absorbency should be determined by a water drop test. By applying a primer that is adapted to the absorption capacity of the subfloor, the risk of pinholes and elephant skin is reduced. Therefore, applying a primer is absolutely necessary. This prevents the mixing water from being extracted from the leveling compound too quickly. The substance binding improves the adhesion of the leveling compound to the subfloor.

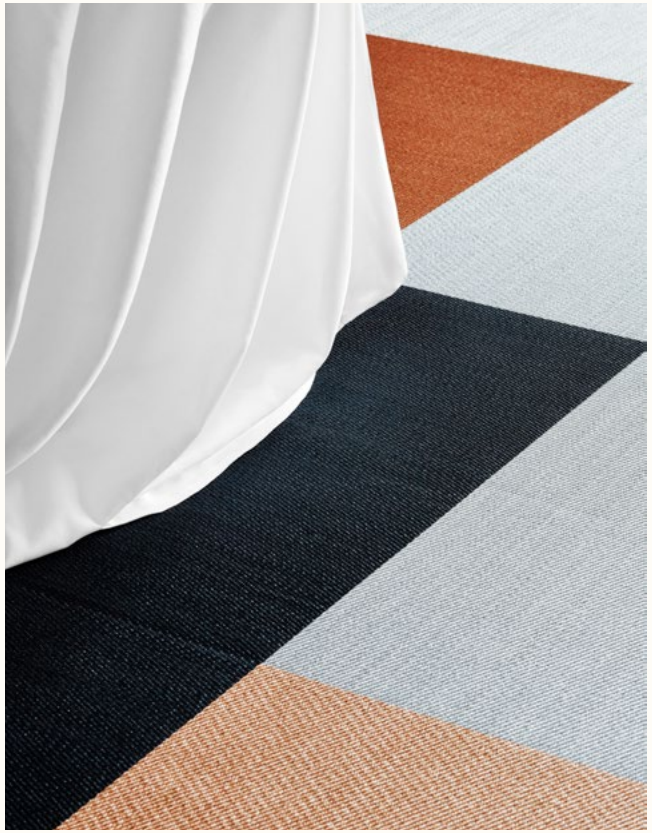
Before priming, the subfloor must be sanded and any dust residues must be vacuumed off in order to remove all impurities and adhesion-reducing layers. When leveling, a self-smoothing cementitious leveling compound is applied. To ensure maximum absorbency and good self-levelling properties, a layer thickness of at least 2 mm is recommended.

After the subfloors have been leveled and dried, they can be sanded and cleaned of all dust particles.Then they are ready for Bolon flooring to be installed on top of them. Always use primers, leveling compoungs and glues from the same manufacturer and check with them which materials they recommend for the job in question as every project is different.









ANHYDRITE SCREEDS

Anhydrite screeds can be considered sufficiently dry when measurements taken with the CM-method (calcium carbide method) result in a moisture percentage lower than 1% CM-value.

Before installing the 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 elephant skin is reduced. Therefore, applying a primer is absolutely necessary. This prevents the mixing water from being extracted from the leveling compound too quickly. The substance binding improves the adhesion of the leveling compound to the subfloor.

Before priming, the subfloor must be sanded and the dust residues must be vacuumed off in order to remove all impurities and adhesion-reducing layers. When leveling, a self-smoothing gypsum bound leveling compound is applied. To ensure maximum absorbency and good self-levelling properties, a layer thickness of at least 3 mm is recommended. After the subfloors have been leveled and dried, they can be sanded and cleaned of all dust particles. Then they are ready for Bolon flooring to be installed on top of them.

Always use primers, leveling compoungs and glues from the same manufacturer and check with them which materials they recommend for the job in question as every project is different.

RAISED ACCESS FLOORS

Before installing Bolon flooring, it is necessary to check whether the raised access floors are correct. These should be smooth, level, clean and dry, and devoid of any movement. If there is any movement, the raised access floors must be re-adjusted and secured. Metal raised access floors must have corrosion protection. Once these floors are correct, they are ready for Bolon flooring to be installed on top of them. For installation directly on top of raised access floors, only our 50 x 50 cm tiles and 667 x 222 mm planks are recommended.

DRY PREFABRICATED SCREEDS

Dry screeds or prefabricated screeds like gypsum fiber boards and OSB plates are subfloors that are assembled and constructed from panel-like prefab components. The plates are usually joined together by tongue and groove bonding and screwing. The joints and screw holes must be sealed and sanded after sealing. In addition, before priming and leveling, it must be checked whether the panels have been installed correctly. In particular, whether suspension, vibrations or creaking noises are audible due to inadequate mounting. If this is the case, the plates must be screwed back on again.

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 elephant skin is reduced. Therefore, applying a primer is absolutely necessary. This prevents the mixing water from being extracted from the leveling compound too quickly. The substance binding improves the adhesion of the leveling compound to the subfloor.

Before priming, the subfloor must be sanded and the dust residues be vacuumed off in order to remove all impurities and adhesion-reducing layers. When leveling, a fibre-reinforced gypsum bound leveling compound is applied. To ensure maximum absorbency and good self-levelling properties, a layer thickness of at least 3 mm is recommended. After the subfloors have been leveled and dried, they can be sanded and cleaned of all dust particles. Then they are ready for Bolon flooring to be installed on top of them.

Always use primers, leveling compoungs and glues from the same manufacturer and check with them which materials they recommend for the job in question as every project is different.

WOODEN PLANK FLOORS
& OTHER WOODEN FLOOR CONSTRUCTIONS

Wooden floors should be carefully checked for the condition of their substructure, to prevent them from creaking when people walk on them later. In the case of a wooden beam floor, the distance between the wooden beams on which the structures are screwed must not exceed 60 cm. Loose floorboards must be screwed back on and loose parquet strips must be glued or screwed down. Old lacquer or oil layers must first be sanded off, and the joints between the parquet or floor parts must be filled. This prevents the leveling compound from sagging during the leveling of the substrate.

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 elephant skin is reduced. Therefore, applying a primer is absolutely necessary. This prevents the mixing water from being extracted from the leveling compound too quickly. The substance binding improves the adhesion of the leveling compound to the subfloor.

Before priming, the subfloor must be sanded and the dust residues be vacuumed off in order to remove all impurities and adhesion-reducing layers. When leveling, a fibre-reinforced gypsum bound leveling compound is applied. To ensure maximum absorbency and good self-levelling properties, a layer thickness of at least 3 mm is recommended. After the subfloors have been leveled and dried, they can be sanded and cleaned of all dust particles. Then they are ready for Bolon flooring to be installed on top of them.

Always use primers, leveling compoungs and glues from the same manufacturer and check with them which materials they recommend for the job in question as every project is different.

CERAMIC SUBFLOORS

Before installing Bolon flooring on ceramic tiles, the subfloor can be prepared in 2 ways. With the more complex and usually more expensive method, the tiled floor must be completely removed and the substructure rebuilt. This method should be considered if little or no installation height available or if several tiles are no longer firmly attached.

The second, less complicated option is to level the tiled floor. For this, the tiles must first be thoroughly cleaned and sanded to remove all adhesion-reducing residues of maintenance products. Then the tiles can be primed with a filling, cementitious primer and leveled with a suitable leveling compound. After the subfloors have been leveled and dried, they can be sanded and cleaned of all dust particles. Then they are ready for Bolon flooring to be installed on top of them.

Always use primers, leveling compoungs and glues from the same manufacturer and check with them which materials they recommend for the job in question as every project is different.

EXISTING FLOOR FINISHES

We do not recommend installing Bolon flooring over existing floor finishes such as rubber, PVC, laminate, carpets, linoleum or painted floors. We always recommend removing such finishes and carrying out the appropriate work on the existing subfloors as described above. With existing floor finishes, it is impossible to verify that the existing subfloors were correctly prepared before the existing floor finishes were installed. Also, the use of adhesives on existing floor finishes may not provide the correct adhesion between the different floor finishes and Bolon flooring.

Another potential source of problems when Bolon flooring is installed on top of existing floor finishes is that the impression sensitivity can be too high. However, there are solutions on the market, such as underlays that can be applied before the flooring. Still, this option should always be assessed on a per-project basis and at your own risk.

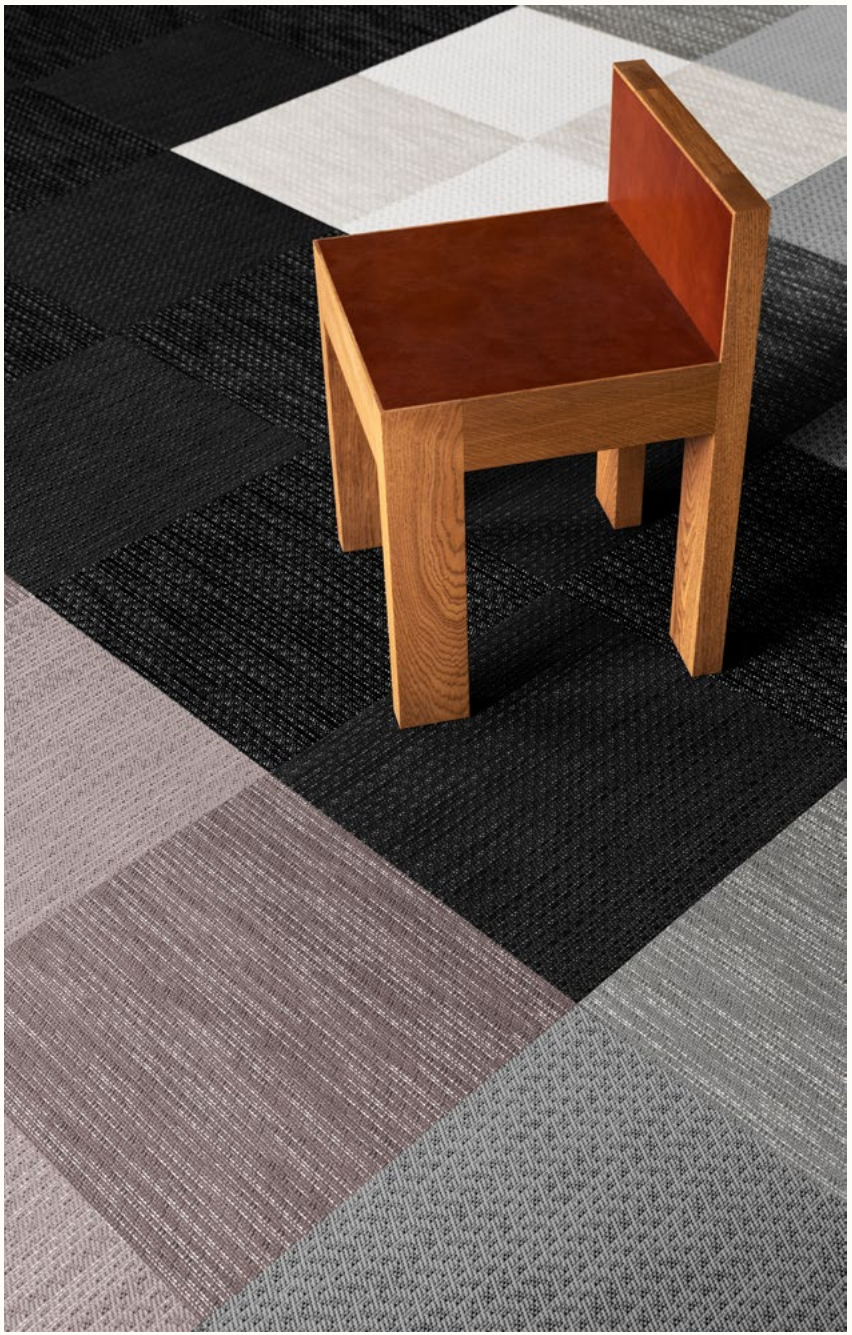
Installation methods and instructions

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:

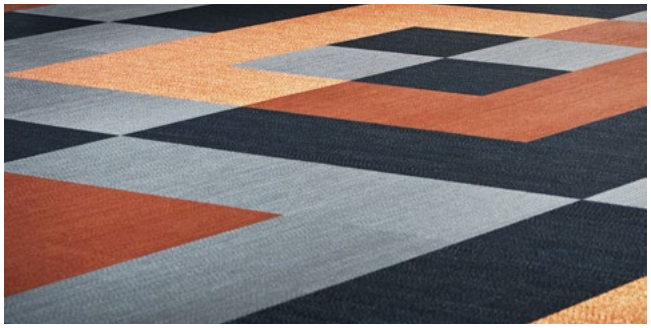
INSTALLATION METHODS ACOUSTIC TILES 50 X 50 CM (RECYCLED FELT BACKING)

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



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.

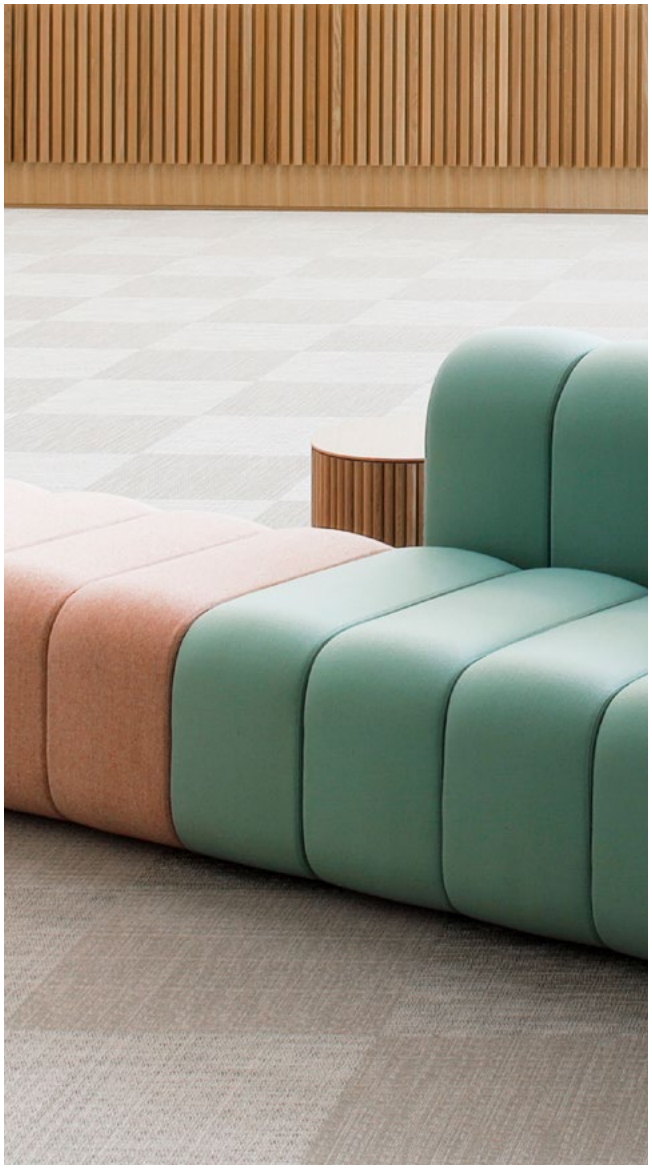
3 Start installing the 50 x 50 cm Bolon tiles at the centre point. Work outwards from the first tile, creating a triangle. Continue in this way until the first quarter of the floor is complete. Be careful to follow the guidelines and ensure that the Bolon tiles 50 x 50 cm fit closely together. If the 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.

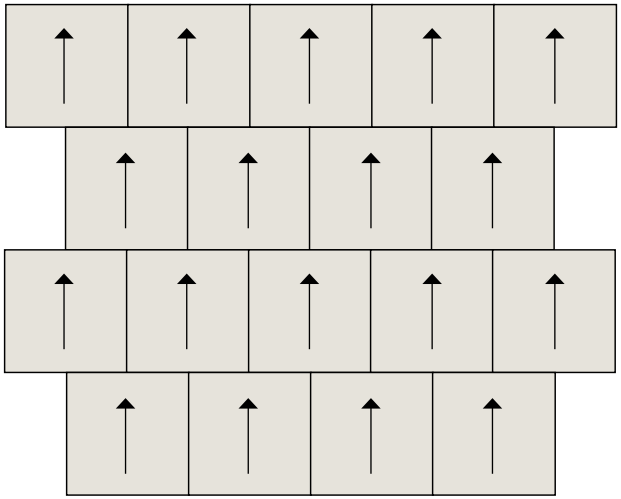
LAYING PATTERNS WITH 50 X 50 CM BOLON TILES

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:



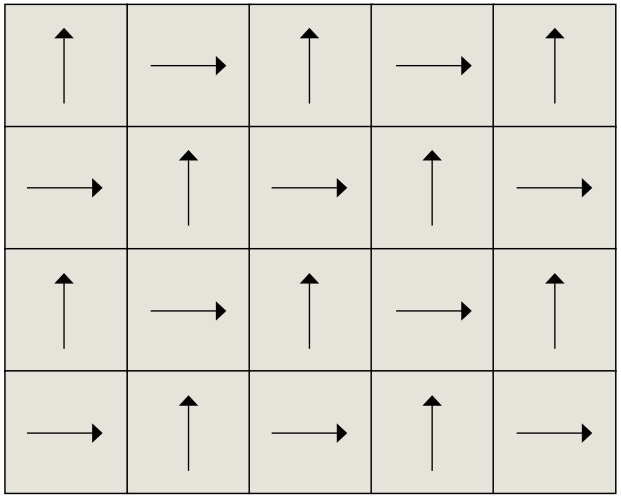
BRICK LAY

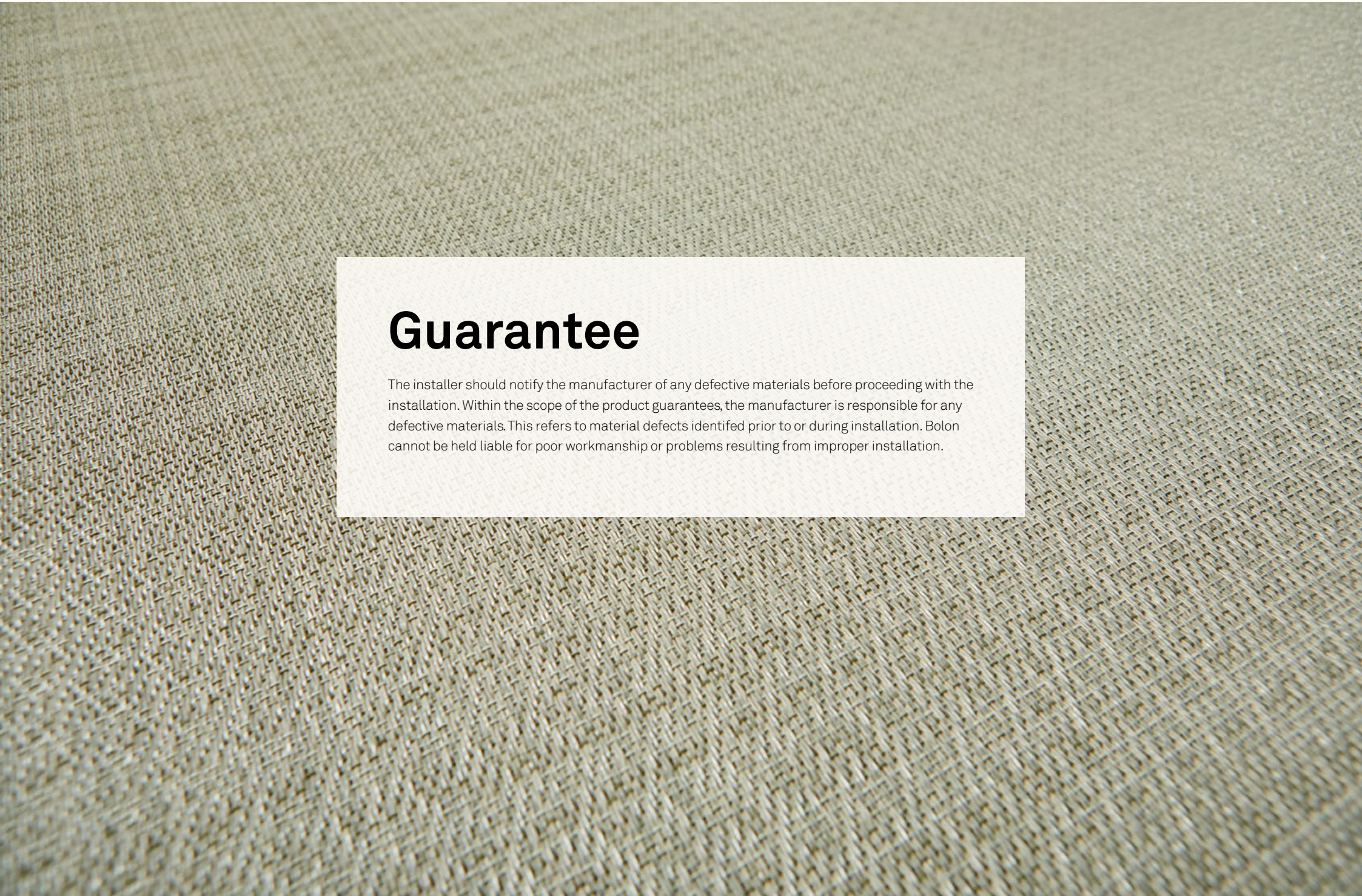
In this laying pattern, the tiles are laid so that the arrows on the back all point in one direction, while the length seams of the second row are shifted by 25 cm.



QUARTER TURN

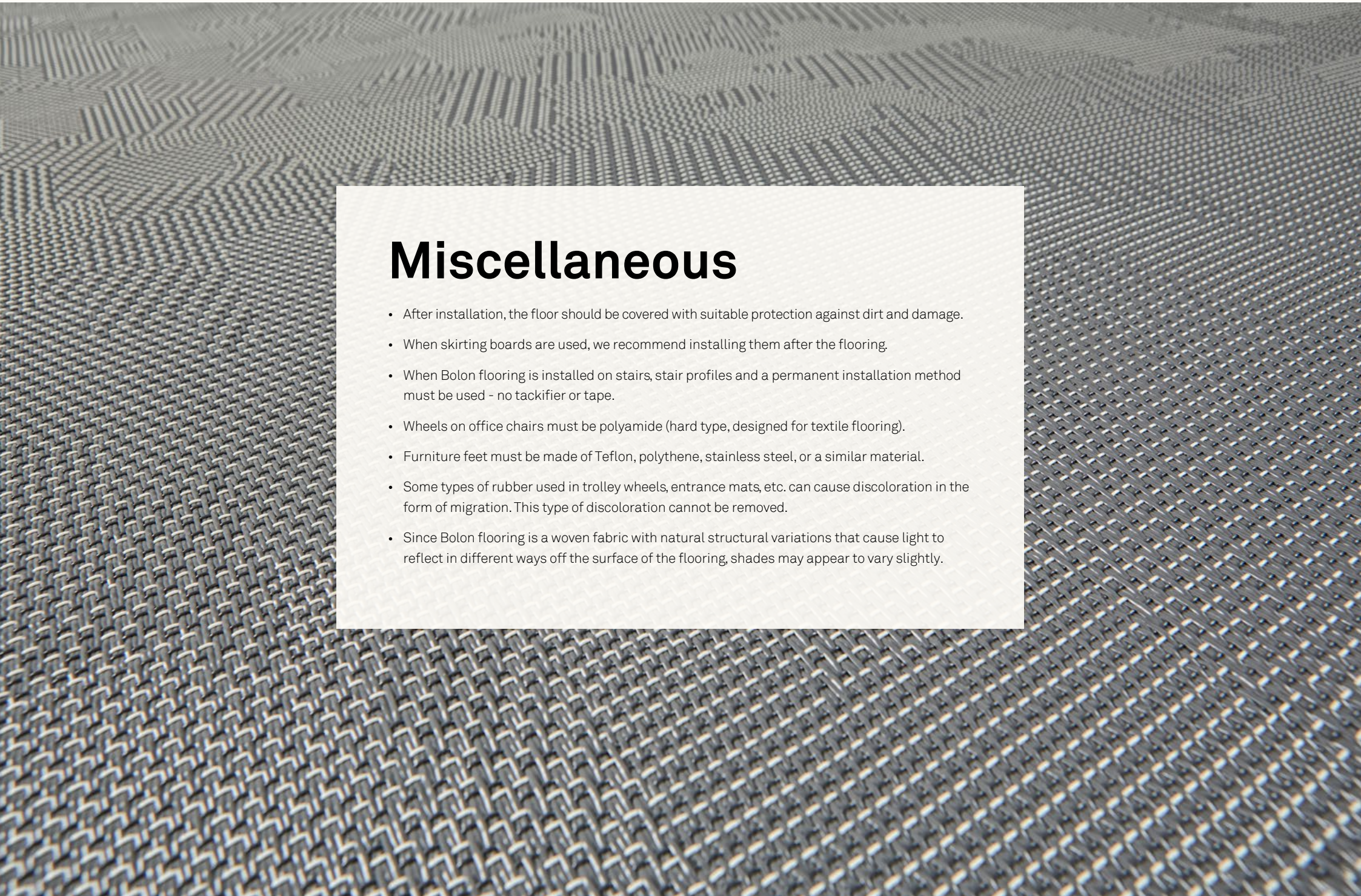
In this laying pattern, the tiles are laid so that the arrows printed on the back are turned 90 degrees, forming a chequerboard pattern.





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 identifed 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.

BOLON

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