

Installation **instructions**

High-tech flooring, beautifully installed

2tec2[®]
high tech flooring

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high tech flooring



“The passion for fibres and structures, the love of colours and the determination to use eco-conscious materials are the foundations of our company’s philosophy.”

2TEC2 is a 100% Belgian company devoted to designing and producing recyclable high-tech woven flooring. Focussed on weaving aesthetic tiles and rolls for the project market, the company aims for a superior performance in quality, functionality and durability.

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List of tools



1. Pressure roller

2. Adhesive

3. Adhesive comb TBKA2 (for rolls)

4. Railcut (Wolff)

5. Knife/hook knife

6. Seam roller

7. Pencil

8. Tape measure

9. Chalk line tracer

Before you start

A. Check



Rolls and tiles with visible defects cannot be taken back after cutting or installation. Defects must be reported in advance according to our general terms and conditions.



Check delivery

Is the quantity of boxes, pallets or rolls correct?
Are the design and colour correct?



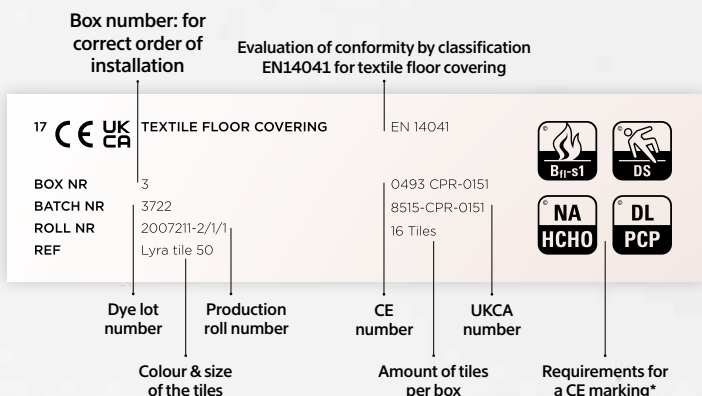
Check state of delivery

Check if the packaging or product is damaged. Take photos of the state of delivery before removing the packaging.

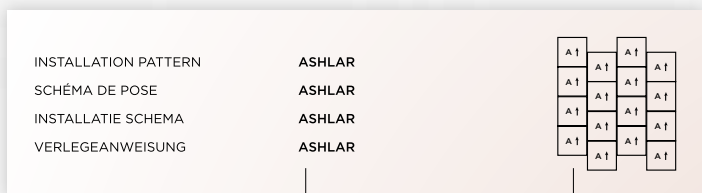


Check dye lot

Different dye lots can have a slight difference in shade. Always check the dye lot number. Only 1 dye lot should be used per room. Do not mix up the dye lots in case of several rooms.



* Additional information can be found in our Declaration of Performance (DOP), available on our Media Bank.



Advised installation pattern. Check the overview of laying pattern for more information.

Tile A (can also be B, C or D). This letter can be found on the backside of each tile.



This label is an example. There are multiple possibilities. The label on your box will depend on what installation pattern is recommended for your tiles.



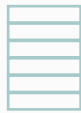
B. Stock

The tiles or rolls should be stored in their original packaging on the original pallet or on a flat surface.



Pallets

Do not stack pallets on top of each other. Place every pallet separately on the floor.



Stack

Stack the boxes orderly.



15 boxes

Stack a maximum of 15 boxes.



Storage temperature

15°C - 30°C
(65°F - 86°F)



Heavy objects

Do not place heavy objects on top.

C. Acclimatisation



Before installation

Bring tiles or rolls into the room 48h before installation.



Relative humidity in the room

55% - 75%



Room temperature

Temperature during installation = room temperature when put into use.

MIN = 15°C (60°F)
MAX = 50°C (122°F)

Allowed temperature fluctuation after installation = +/- 10°C.



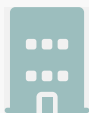
Subfloor preparation

A. General

The subfloor must be flat, pressure-resistant, crack-free and permanently dry, as well as free of contaminants such as dirt, oil, grease, dust and so on.

B. New construction vs renovation

Ensure that old floor coverings, adhesives and unevenness are carefully removed. Repair damaged areas or holes in the subfloor.



New building

Volume changes to building materials can be caused by thermal effects or moist. Failing to consider building movements can result in visual defects, such as 'doming' (tiles bowing upwards), or seams becoming visible. 2TEC2 is preferably installed when the building is already set.

Always have expansion joints, in accordance with the requirements of national building standards and regulations.



Renovation

The best practice is to remove the old floor covering. Check the general guidelines, above mentioned, in point A for subfloor preparation requirements. Ensure that the old floor coverings, adhesives and any unevenness are carefully removed.

Check for the presence of rising damp and apply a moisture barrier beforehand if necessary.

If the 2TEC2 floor is still to be placed on the old floor covering, check hereafter point C for the installation on different types of subfloors.

C. Types of subfloor

Determine the type of subfloor you will work with.

1. Cement based or moisture absorbent subfloor

1

Coat with a primer and level the subfloor. This applies for the installation of both tiles and rolls.

2

Let the primer dry, sand the subfloor and clear it of dust.

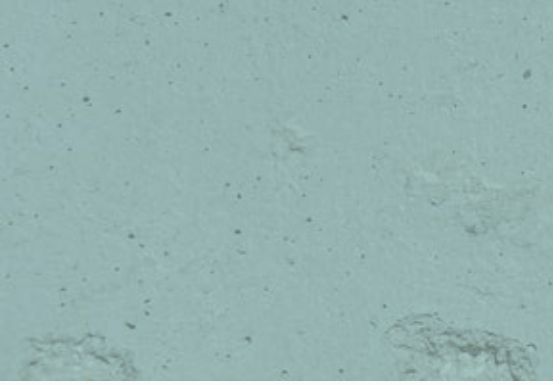
3

Apply adhesive and 2TEC2 floor.



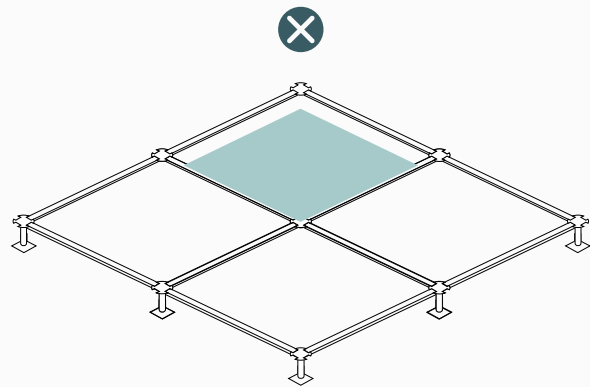
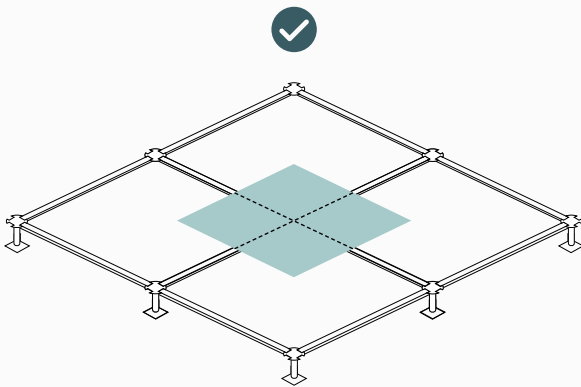
Make sure that the different types of products needed for a good subfloor preparation come from the same manufacturer. Follow their instructions carefully. These will differ depending on the type of subfloor.





2. Raised floor/Technical floor

- Application of a primer and a self-leveling compound are not applicable here. The adhesive may be applied directly to the raised flooring system.
- 2TEC2 can only be applied on plain panels. With structured panels, 'telegraphing' may occur, meaning the outlined structure of the panels appears on the woven top layer of the tiles.
- Levelling of the floor panels is required. The maximum deviation of two adjacent panels is 1 mm. If the difference is more, there is a chance that telegraphing will occur over time.
- Avoid spilling adhesive between the seams of the panels. This could lead to a cracking sound when walking on the floor or could lead to gluing the technical panels together.
- Rolls are not suited for installation on technical floors.



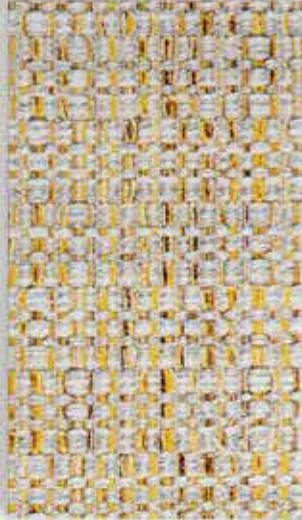
Ensure that the seams of the 2TEC2 tiles are offset with the seams of the technical floor.

Types of subfloor

Stone floor



Soft floor or carpet



Wooden floor



Hardboards: OSB or Multiplex



Laminate



Structured tile

Subfloor preparation

3. Existing floor

e.g. **Wooden floor, stone floor, LVT, or other**

Installing 2TEC2 on an existing floor should always be assessed individually from project to project. Check whether the conditions are suitable in terms of stability, cleanliness, smoothness, and humidity. For a good preparation, it is advised to have professional technical support.

4. Hardboards

e.g. **OSB or Multiplex**

Installing 2TEC2 floor covering over rigid boards is only possible when there is no height difference between the seams of the boards. If there is a height difference, there is a risk that telegraphing will appear, meaning that marked lines will become visible on the woven top layer over time. These lines are permanent and cannot be removed. Only boards that are treated against moisture can be used for installation.

5. Soft subfloors

e.g. **Carpets**

2TEC2 can never be placed directly onto soft subfloors such as carpets. The soft subfloor must be removed completely before the installation of 2TEC2. If necessary, the installation of a floating technical floor can serve as a solution to install 2TEC2 in these circumstances.

6. Temporary placement

e.g. **Mock-up, pop-up or exhibition**

For a temporary placement, a double-sided tape can be used. Double-sided tape is by no means suited for a permanent installation.

7. Underlays

Underlays are optional

2TEC2 can be placed on a compact underlay. An underlay is a sheet of material that is laid between the subfloor and the floor. It keeps the floor levelled and stable and can insulate extra against sound. 2TEC2 in itself has an acoustic felt backing of minimum 19dB.

The underlay must be fit for textile flooring applications, as per the manufacturer's specifications. It is important that this flooring underlayment meets the general guidelines of an underlay (see point A Subfloor Preparation).

Various brands of underlay can be used with 2TEC2 floors. Contact us for advice. Tested and approved underlays from the brand Plyteq:

- Plyteq Geniemat FIT08
- Plyteq RST05

For the buildup with underlay, please refer to point C in the 'Installation' chapter.

Subfloor preparation

D. Underfloor conditions



Subfloor temperature

15°C (60°F) – 25°C (77°F)

Tile temperature

18°C (65°F) – 25°C (77°F)



Subfloor residual humidity

CM* cement < 2%
CM* anhydrite < 0.5%
RH** < 95%

*CM = based on the Carbid Method
**RH = Relative Humidity

E. Underfloor heating

Always check that the underfloor heating is a tightly closed circuit and there are no leaks.



Prior to the installation

Switch off the underfloor heating 48 hours before starting the installation.



After the installation

Wait until 72 hours after the installation to switch the underfloor heating back on.

<30°C / 86°F



Temperature

The maximum permissible temperature of the underfloor heating is 30°C.

Installation



Check each tile or roll for visible defects before cutting or installing.

Check the dye lots per room to ensure complete uniformity in colour and aspect.

A. Adhesives

- Rolls should be installed using a permanent adhesive.
- Tiles should be installed with a non-permanent adhesive (tackifier).

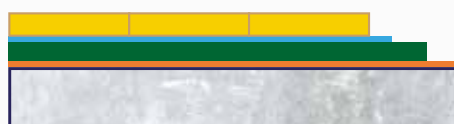
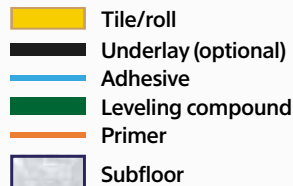
See the overview at the end of this document to find out which adhesives are suitable for installing 2TEC2.

B. Entrance matting

When 2TEC2 is placed at an entrance, a walk-off mat is strongly recommended. Up to 85% of dirt is brought in by shoes. Entrance matting prevents soiling and accelerated wear.

The type and size of the entrance matting should be assessed individually per project.

C. Buildup of the installation

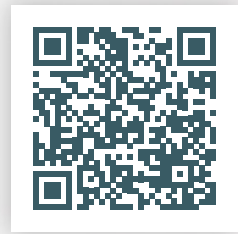


Standard buildup



Buildup with underlay





Video instructions
installation of rolls

D. Installation rolls

Make sure to follow meticulously these 8 steps when installing 2TEC2 rolls.

1. Cleaning

Start with vacuuming the subfloor and make sure to have a clean and dust-free starting base.

2. Starting point

Determine the optimal starting point:

- Measure the room
- Mark a line on the floor parallel to the base wall, using a chalk tracer or laser. To determine at which distance, you should start at a point to avoid placing rolls on full width against the wall, since no wall is perfectly straight.

3. Fitting the lanes

Place and fit the lanes as shown on the enclosed fitting instructions that come with each delivery.

There are two options:

- Place and fit the lanes in the same direction (the arrows on the backside point in the same direction).
- Place and fit the lanes in alternate directions (the arrows on the backside point in opposite directions).

4. Cutting

Cut the lanes to the desired length.

Allow for some extra cm's/inches for perfectly fitting the joints at the ends of the lanes, as described hereafter.

5. Invisible seams

There are several methods for obtaining invisible seams, depending on the pattern:

- For the collections Lustre, Stripes, Barcode, Hybrid, Infinite, Marble, Desert and Cracked Earth:
start with placing two lanes next to each other in the length, with a 3 cm overlap. Then place your railcut 2 cm from the edge and double cut the seams. Make sure the knife of the railcut has a length of 1 cm.
- For the Herringbone design:
start with cutting one lane straight, just off the tip of the Herringbone pattern. Then place this lane in report with the second lane. Use the lane that has already been cut as a guide for cutting the second one.



To perfectly double-cut rolls
use a railcut system
and hook knife
(e.g. from the brand Wolff).

6. Cut edge removal

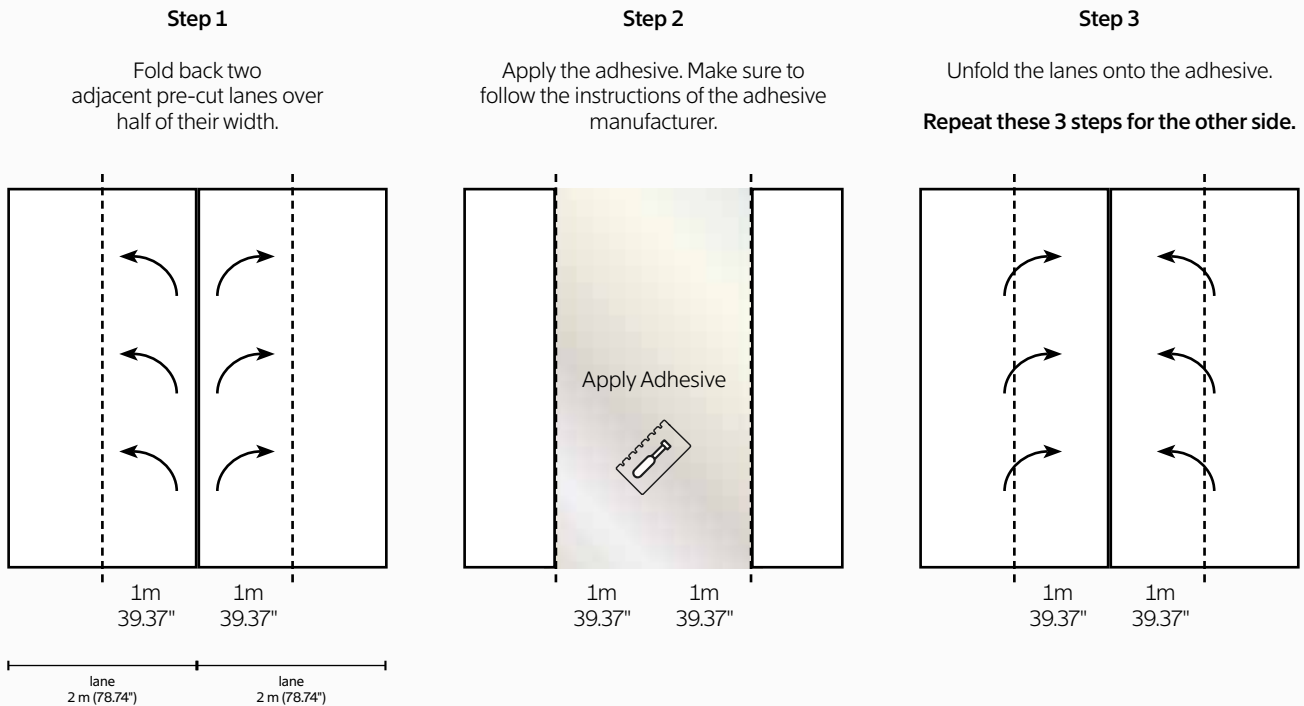
Remove the cut edges from both lanes so they fit perfectly next to each other.

If any tiny white glass fibre protrusions should become visible at the edges, you can now gently remove them.

7. Gluing

Apply the adhesive immediately after cutting.

Make sure the lanes fit very tightly next to each other, so the seams between them are as small as possible.



8. Pressure rolling

Use a seam roller and pressure roller to remove any air that is left under the lanes.

This ensures a good bonding between the backing of the rolls and the adhesive. Work from the centre of the lane towards the edges, at a 45° angle.



Video instructions
installation of tiles

E. Installation tiles

Make sure to follow meticulously these 6 steps when installing 2TEC2 tiles or planks.



Drying time

Please respect the drying time of the non-permanent adhesive, or this may result in permanent gluing.



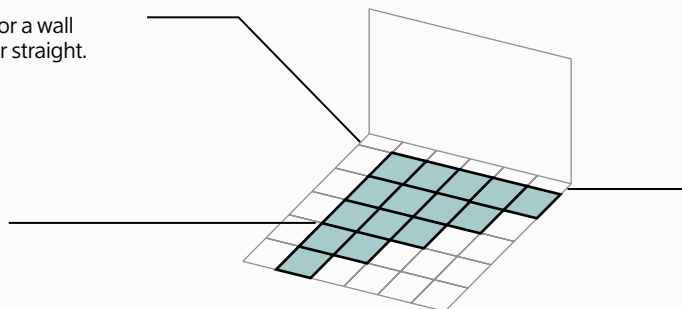
Follow the numbers

All pallets are numbered on delivery.
Work in order of pallet numbers,
then follow the order of box numbers.

Placement schedule

Never start at an edge or a wall because walls are never straight.

Work pyramidwise.



Make sure that the cut tiles against a wall are larger than 1/4th of the size of the tile.

1. Cleaning

Start with vacuuming the subfloor and make sure to have a clean and dust-free starting base.

2. Gluing

Apply the adhesive to the subfloor.

- Use a tackifier, i.e. a non-permanent adhesive, for the installation of tiles.
- Make sure to follow the instructions of the manufacturer of the adhesive.

3. Starting point

Determine the starting point in the room and place the first tile:

- Measure the room
- Mark a line on the floor parallel to the base wall, using a chalk tracer or laser. To determine at which distance, you should chose a starting piont so that you will not have full tiles against the wall, since no wall is perfectly straight.
- The tiles next to the wall should not be smaller than 1/4th of their size.
- The first tile is placed along this marked floor line.



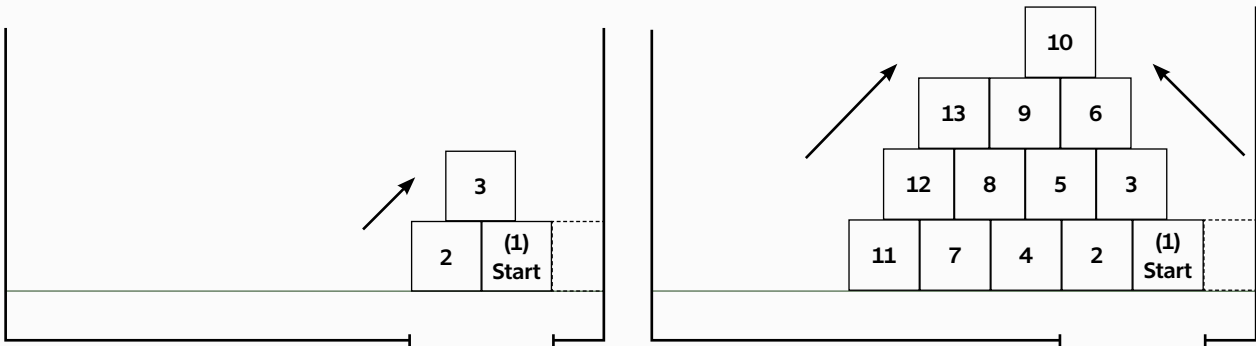
4. Placing the tiles

Start installing the tiles:

Check the appropriate installation pattern on the box of the tiles.
The first tile has been placed along the marked floor line.

Continue placing the tiles pyramidwise:

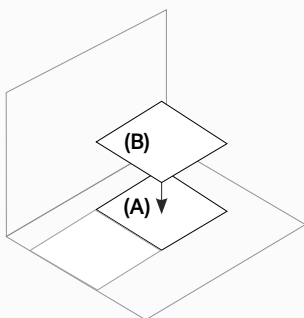
- Place the second tile perfectly aligned next to the first tile.
- Place the third tile above these 2 first tiles, exactly in the middle.
- Continue this until you arrive at the wall.
- Follow the same sequence of steps on the other side of the floor line and complete the pattern.



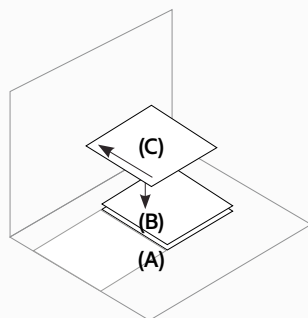
5. Against the wall

How to cut a tile at the edge of a wall:

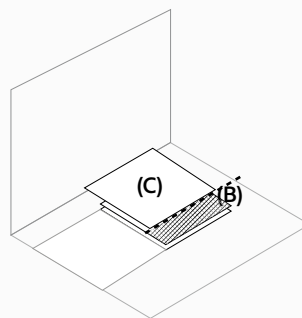
- Tile A is the reference tile
- Place a second tile B on top of tile A
- Place a third tile C on top
- Slide this tile C against the wall
- Cut tile B along the edge of tile C
- Place the cut part of tile B next to tile A against the wall. It will fit perfectly.



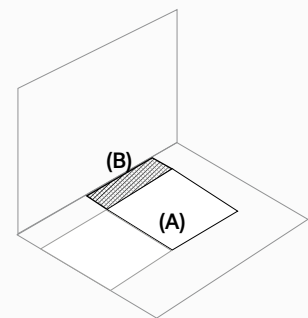
Place tile B on top of tile A



Slide tile C against the wall



Cut tile B along the edge of tile C



Place the cut of tile B against the wall

6. Pressure rolling

Use a seam roller and/or pressure roller to remove any air that is left underneath the tiles.
This ensures a good bonding between backing and adhesive.



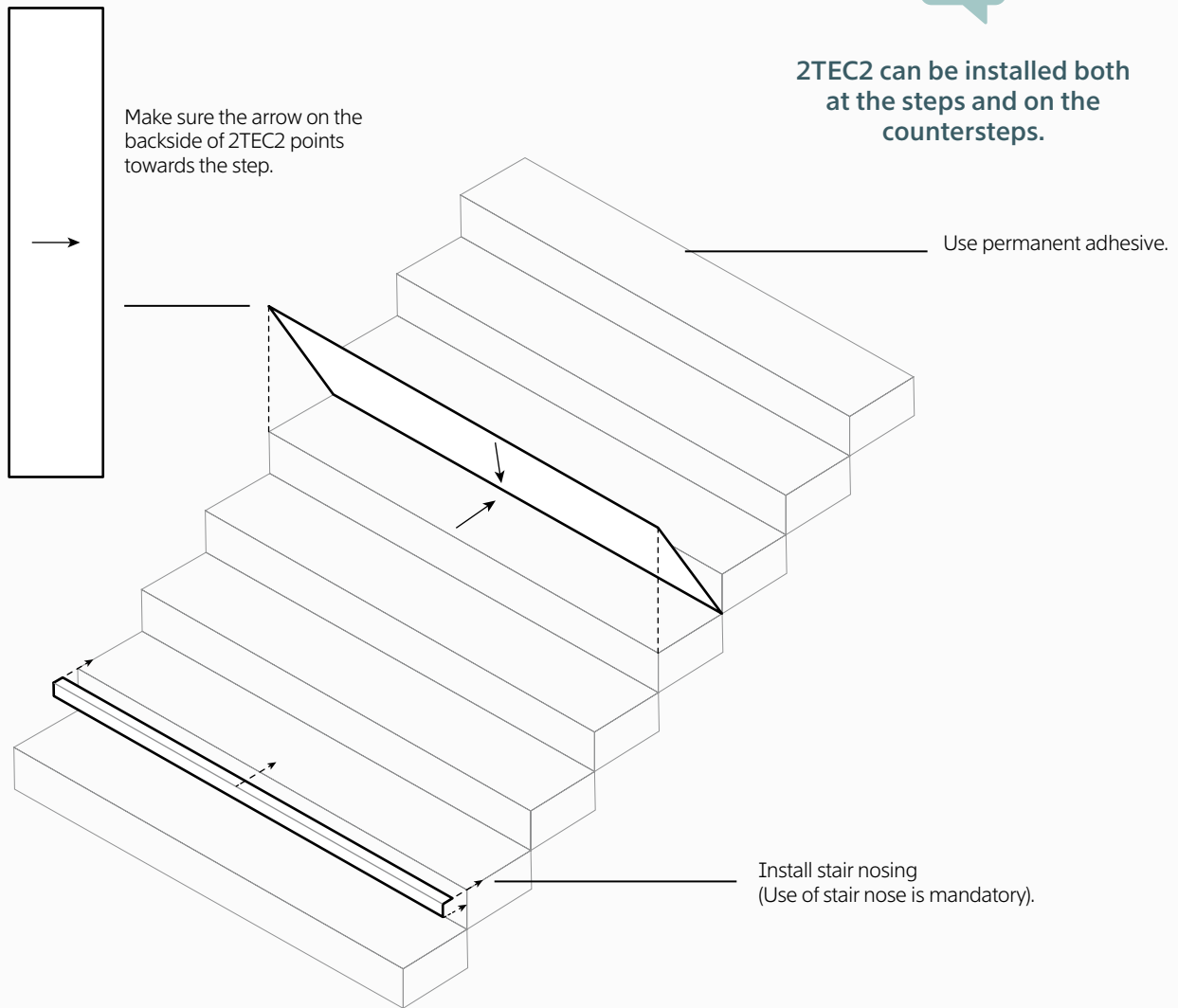
F. Stairs

How to cover stairs with 2TEC2 tiles.

Rolls cannot be directly installed on the stairs, they must be pre-cut to the size of the steps before being placed on the stairs.



2TEC2 can be installed both at the steps and on the countersteps.



G. After installation

The floor should be protected with a foil or cardboard, immediately after installation, to prevent damage from work carried out after installation.

Dust, paint and plaster fallouts can leave permanent damage to the floor. Sharp or heavy objects can damage 2tec2 beyond repair. Avoid this by using appropriate protection.

Overview of laying patterns tiles & planks

The laying pattern varies according to the design and is chosen by the client's specifications. For each delivery this pattern can be found on the boxes of the tiles.

Following installation patterns are possible:

Collection name:

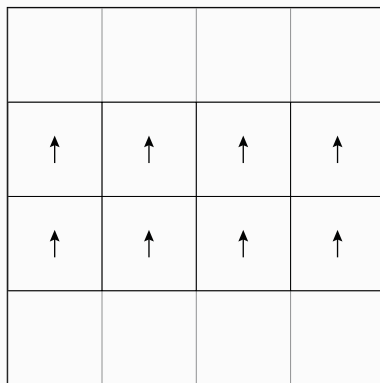
- **Barcode:** Brick - Quarter turn
- **Colourful:** Quarter turn - Brick - Ashlar
- **Cracked Earth:** Monolithic - Quarter turn
- **Desert:** Monolithic - Quarter turn
- **Hybrid:** Quarter turn - Brick - Ashlar
- **Infinite:** Quarter turn - Brick - Ashlar
- **Lustre:** Ashlar - Brick - Quarter turn
- **Marble:** Monolithic - Quarter turn
- **Silva:** Random staggered - Herringbone
- **Strata:** Random staggered A/B & AA/BB - Diamond A/B - Random staggered Mix A/B
- **Stripes:** Brick - Quarter turn

A. Standard shapes

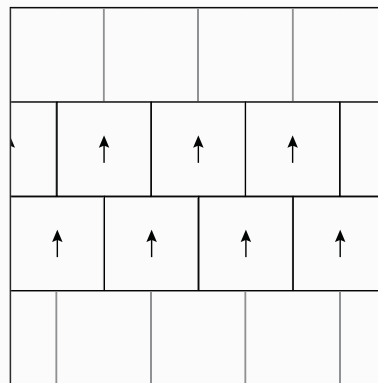
1. Patterns for tiles

Standard laying patterns

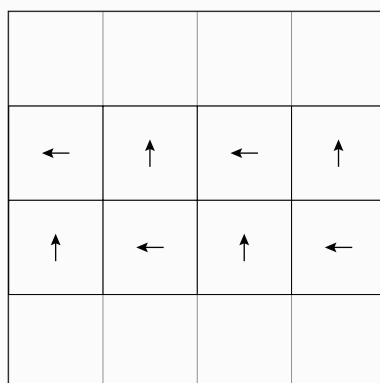
- Collections: Barcode, Colourful, Cracked Earth, Desert, Hybrid, Infinite, Lustre, Marble and Stripes
- Standard: tiles 50 x 50 cm (19.69" x 19.69")
- Play: Tiles 25 x 25 cm (9.84" x 9.84") / 100 x 100 cm (39.37" x 39.37")



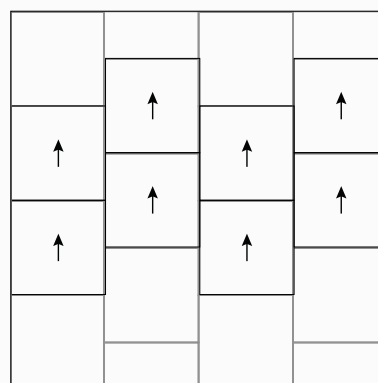
Monolithic



Brick



Quarter turn

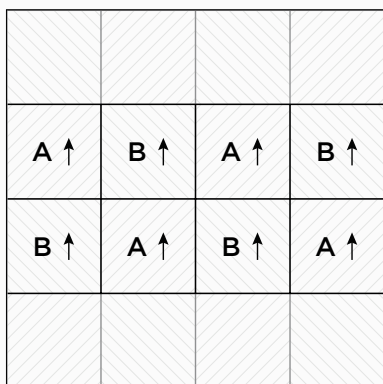


Ashlar

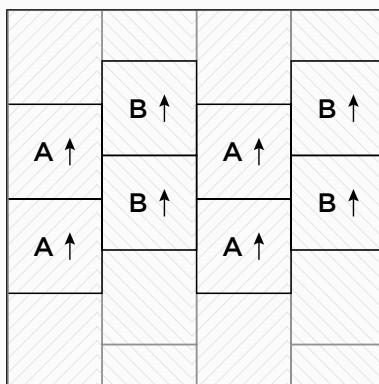
2. Patterns for Strata collection

Tiles

- Collection: Strata
- Tiles 50 x 50 cm (19.69" x 19.69")



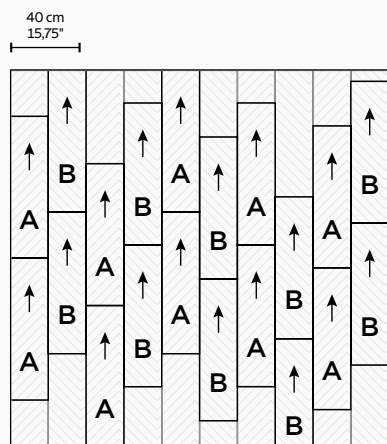
Diamond A/B



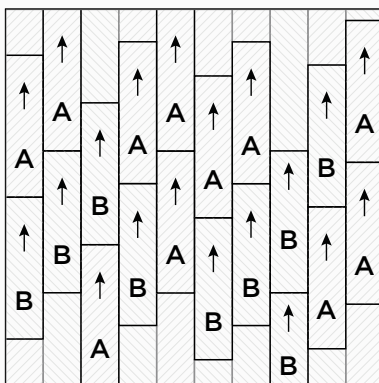
Staggered A/B

Planks

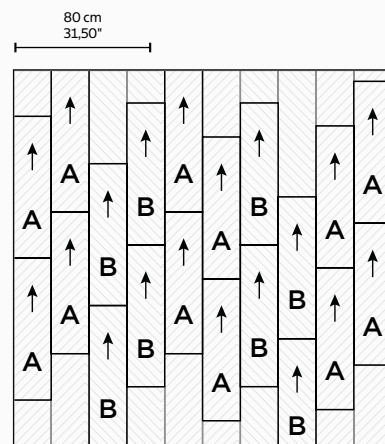
- Collection: Strata
- Planks 20 x 75 cm (7.87" x 29.53")



Random staggered A/B



Random staggered Mix A/B



Random staggered AA/BB

The tiles and planks of the Strata collection come in 2 variations:

- A with upward line design
- B with descending line design

Tile A



Tile B



Plank A



Plank B

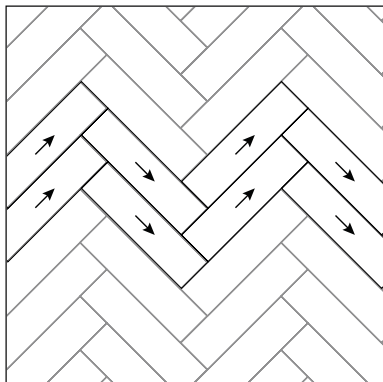


*To create the different installation patterns, orders must contain 50% A and 50% B planks or tiles.

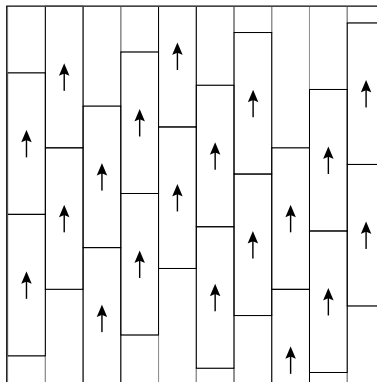
3. Patterns for Silva collection

Planks

- Collection: Silva
- Planks 20 x 75 cm (7.87" x 29.53")



Herringbone



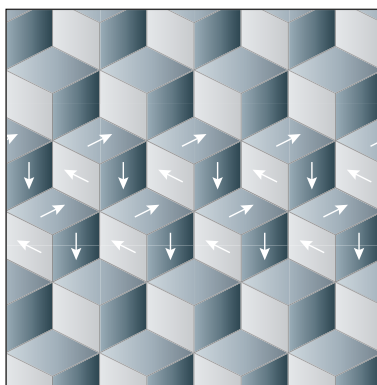
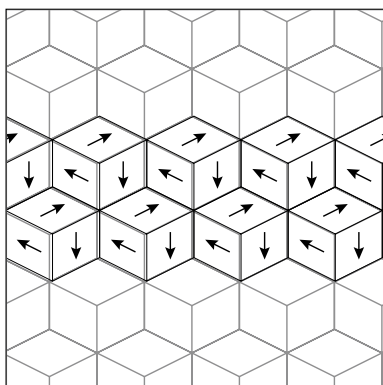
Random staggered

B. Play Shapes

Our 'Play' concept gives you the opportunity to create something beautiful and unique by playing with shapes and shades. Below you can find some possibilities. 2TEC2 is available for personalised advice.

1. Diamond

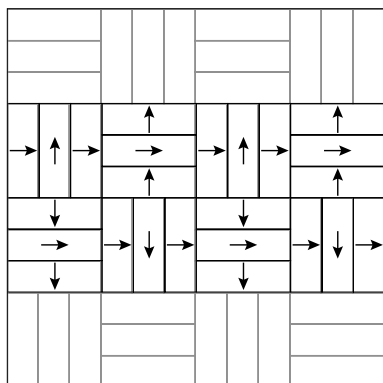
- Play: Diamond shape 37,53 x 65 cm (14.78" x 25.59")



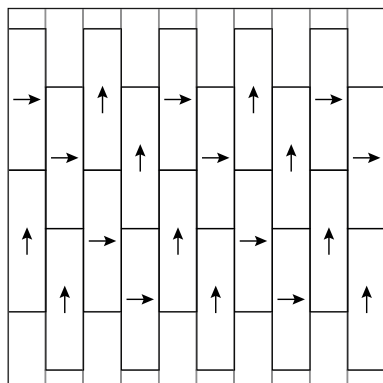
1 reference in 3 orientation directions can give 3 tones of colour.

2. Planks

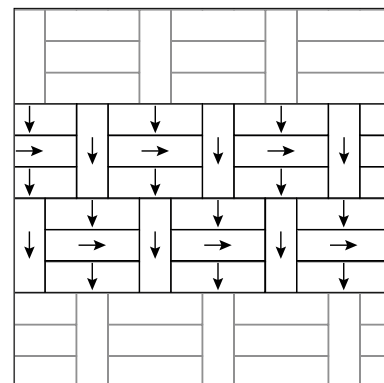
- Play: Planks 22 x 66 cm (8.66" x 25.98")



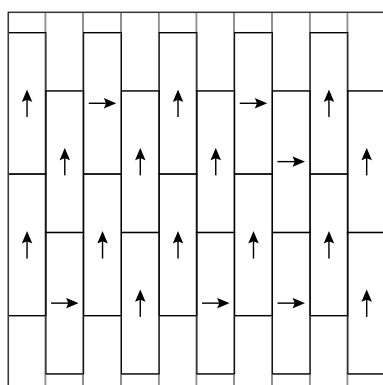
Pattern 1



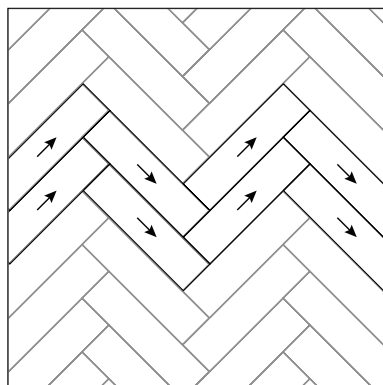
Pattern 2



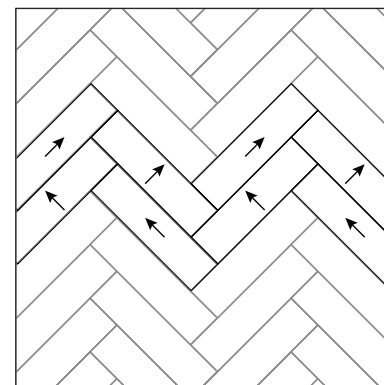
Pattern 3



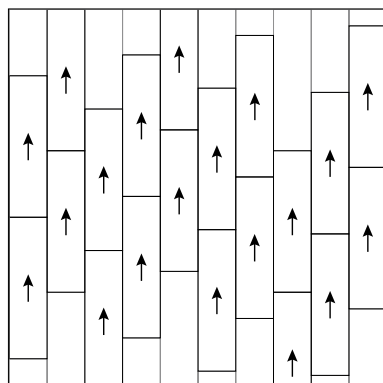
Pattern 4



Herringbone 1



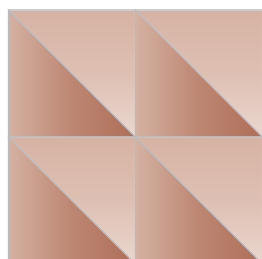
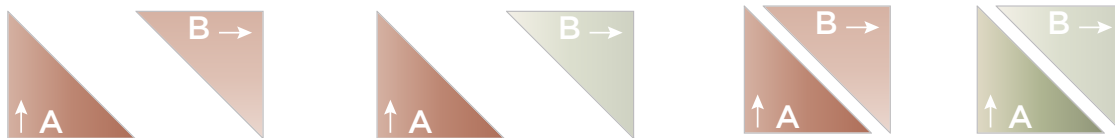
Herringbone 2



Random staggered

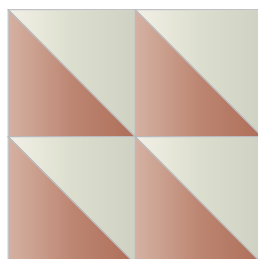
3. Triangle

- Play: Triangle shape 50 x 50 x 70,7 cm (19.68" x 19.68" x 27.84")



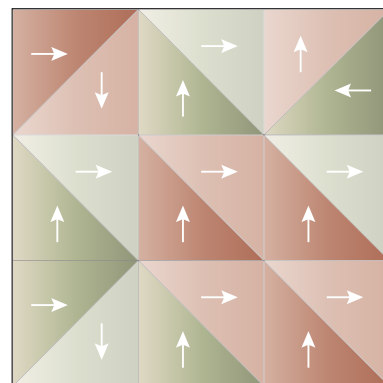
1 reference

1 product colour gives 2 colourtones



2 references

2 product colours give 2 colourtones

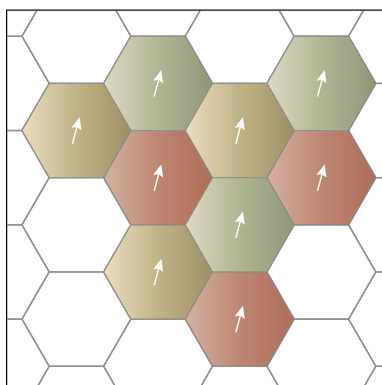


2 references

2 product colours give 4 colourtones

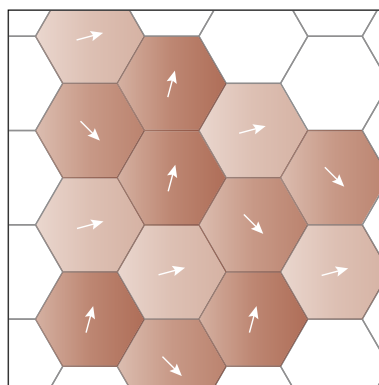
4. Hexagon

- Play: Hexagon shape 50 x 57,7 cm (19.68" x 22.71")



3 references

3 product colours in the same direction give 3 colours



1 reference

1 product colour in various directions give 3 colour tones.

4. Square

- Play: Square shapes 25 x 25 cm (9.84" x 9.84") and 100 x 100 cm (39.37" x 39.37")

Please refer to the standard laying patterns for square tiles, as mentioned above in point A.



Product Orbital Hexagon - Colourful collection Project Hekta På Tur (NO)

1 product colour in 3 directions give 3 colour tones.

Recommended adhesives for **2TEC2 installation**

Brand	ROLLS (permanent adhesive)		TILES (non-permanent adhesive)	
	Europe	North America	Europe	North America
Uzin	KE 2000S	KE 2000S	U2100	U2100
Bostik	STIX A800 PREMIUM	LOCK A499 LOCK A699	A570 MULTITACK FIX A760 TECH	LOCK A799
Forbo	640 Eurostar Special 646 Eurostar Premium	—	542 Eurotack Plus	—
Taylor adhesive	—	Pinnacle Resolute	Dynamic	
Thomsit (PCI)	UK 840 T 410	—	T 435	T 425
Mapei	Wet area: Ultrabond Eco MS 4 LVT		Dry area: ULTRABOND ECO TACK TX+	Dry area: ULTRABOND ECO 811
	Dry area: Ultrabond Eco V4 Evolution"			
F-Ball	Styccobond F48 plus Styccobond F48 plus		Styccobond F41	
WULFF	Multi-Coll Multi-Strong Power-Tack 100"	—	HV 9 Fixiergel	—
SHÖNOX	Schönox EmiClassic Schönox Protect		Schönox multifix	



Other types of adhesives are
also possible.

Contact 2TEC2 for advice.

Good luck with your installation !



Frequently asked questions

FAQ

What is a seamless installation?

- Many designs can be installed seamlessly. This means that both end- and longitudinal seams are hardly visible, creating a broadloom effect. This can be done with both tiles and rolls.

Do the seams of the rolls need to be cold-welded after installation?

- The seams of 2TEC2 rolls do not need to be cold-welded after installation. However, it is recommended when the rolls are installed in a permanently humid room, such as a bathroom. In this case, cold-welding the seams can protect the substrate against moisture.

Is 2TEC2 waterproof?

- 2TEC2 is waterproof: the yarns do not absorb moisture and moisture cannot penetrate into the product.

Can 2TEC2 be installed outdoors?

- Under certain conditions, 2TEC2 can be installed outdoors. Each location must be assessed individually. Contact us for more information or personalised advice.

Can the woven top layer of 2TEC2 discolour?

- 2TEC2 scores perfectly on colour fastness. Even after years of use, the yarns retain their colour and look as good as new. However, discolouration can occur in the form of 'colour migration' when the top layer is brought into prolonged contact with rubber. This is irreversible.

What about office castor chairs?

- The castors of office chairs can be made from different raw materials. PA or PU do not cause discolouration and can be used directly on 2TEC2. If the castors are made of rubber, a protective plate can prevent colour migration.

Can heavy objects be placed on 2TEC2?

- Heavy objects can be placed on 2TEC2. The yarns will not be damaged. However, if heavy objects are left in the same place for a long time, they may leave a permanent imprint. This can be prevented by applying a felt cap on the furniture's legs. The imprint will be less prominent. Move heavy objects only by lifting them. Sliding can damage the top layer.

What are the white fibres after cutting 2TEC2?

- When installing the tiles or rolls, it is possible that white fibres become visible between the seams. These are the glass fibres contained in the core of the yarn. They break off and will disappear when the flooring is put into use. Want to get rid of them faster? You can rub off the fibres before installing 2TEC2 or you can clean the floor several times in a row with a Duplex cleaning machine, hard brush, or damp cloth. Do not use sandpaper on 2TEC2 after the installation.

How does 2TEC2 behave in an alkaline environment?

- 2TEC2 should be placed in an environment with a maximum pH of 10. Too strong acid (pH 1-7) or base (pH 7-14) environments may cause discolouration or damage to 2TEC2.

What is the perfect indoor air dew point temperature in case of underfloor cooling?

- To avoid condensation on the floor, the surface temperature of the floor should be kept a few degrees above the dew point temperature of the ambient air. This can be calculated in any circumstance: $T_d = T - ((100 - RH)/5)$. For an indoor temperature of 23°C (75°F) and a relative humidity of 50%, the indoor air dew point is 13°C (55°F).

Can 2TEC2 be installed on underfloor heating?

- 2TEC2 can be installed on underfloor heating. Always check if the underfloor heating is a tightly closed circuit and there are no leaks. Switch off the underfloor heating 48 hours before starting the installation. Wait until 72 hours after the installation to switch the underfloor heating back on. The maximum permissible temperature of the subfloor heating is 30°C.

Can 2TEC2 be installed in kitchens or dining halls?

- 2TEC2 can be installed in kitchens or dining halls. However, make sure to be careful with food spills. They need to be removed as quickly as possible, grease stains can cause permanent discolouration.

About our warranty



Warranty

- For large projects, a small area can first be fitted with 2TEC2 in a mock-up presentation in order to make a final decision.
- 2TEC2 offers a 15-year warranty for use in normal conditions.
- Tiles with visible defects cannot be taken back after cutting or installation.
- Failure to respect the installation instructions will void the warranty. All commitments made by 2TEC2/Le Tissage d'Arcade S.A. are subject to our general conditions.
- See warranty & sales conditions.

At the time of publication, all details in this brochure were correct.

2TEC2 reserves the right for updating the information at any time, due to our continuous development and finetuning of the 2TEC2 flooring solutions. Contact our customer service or sales department for the latest updates.

High-tech flooring, **beautifully installed.**



Product Moonless Night - Infinite collection Project Riga Biblioteka N°1 (LV)



2TEC2 is a high-tech woven floor covering. The woven top layer provides a 3D structure in vinyl. The backing consists of felt made from recycled PET and gives 2TEC2 excellent acoustic properties.

2TEC2 offers an extensive collection: there is a wide choice of designs, colours, shapes and qualities.

The installation of 2TEC2 flooring should be carried out by a professional to ensure an installation as beautiful as our floors were intended to be.

If in doubt, a technical team is always available for advice at 2TEC2.



2tec2[®]

high tech flooring

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(By appointment)

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