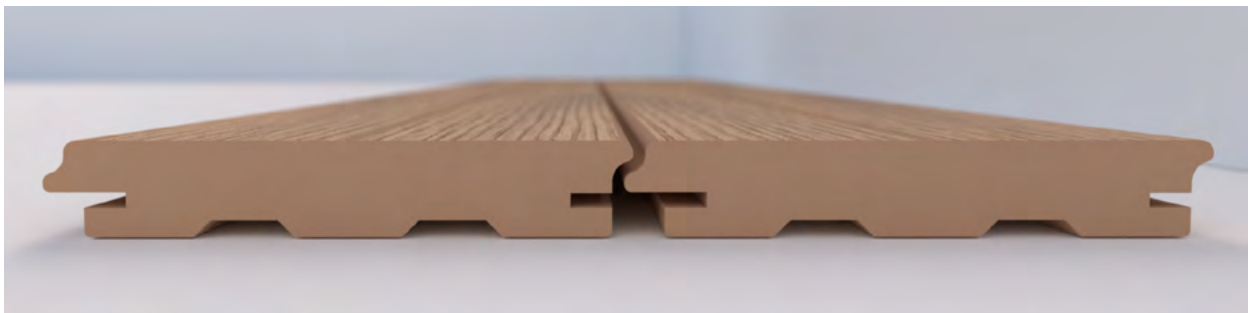


140 INFINIT

Assembly instructions
& maintenance

140 INFINIT is the ideal solution for customers looking for a modern design and high functionality of decking. Its unique thanks to the significantly smaller gap between the decking boards (only 3 mm). The unique profile with an open half-groove is designed to ensure sufficient drainage of rainwater from the terrace and it prevents small objects falling in under the decking.



140 INFINIT a solid unique decking boards work perfectly with the unique AL-BLACK substructure system. The system primarily uses new components, such as the AL-BLACK joist and an important element the fixation points that prevents the boards from moving in the longitudinal direction.

A complete list of possible accessories for 140 Infnit boards is at the end of this document.



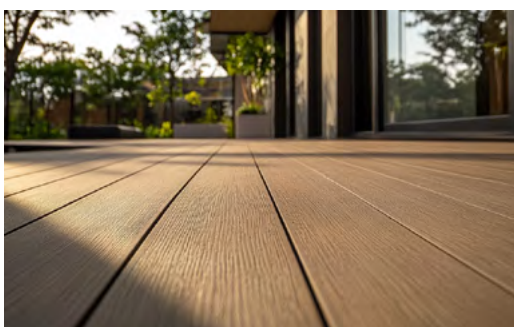
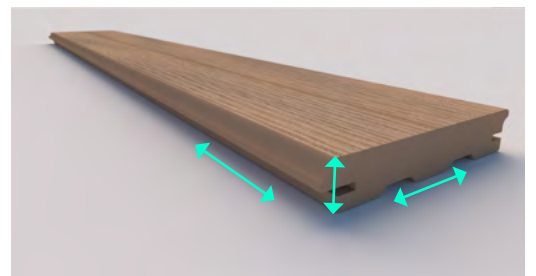
Before you start

- Keep Terafest® decking boards on a dry and flat space so that the front walkable side of the board is face down and protected from sunlight to uneven color aging is avoided.
- Do not treat the boards with stains, paints, varnishes, oils or other chemicals unless they are recommended by the manufacturer for composite materials. Do not use solvents or thinners.



- Use the same tools for composite wood as for hardwood - a circular saw, drill, cordless screwdriver, tape measure, spirit level, pencil, rubber mallet and square.
- Terafest® decking boards, joists and finishing boards expand and contract when temperatures change. It is necessary to comply with the prescribed expansion and ventilation gaps.
- As this is a natural product, slight color variations may occur, which do not affect the quality or durability of products.

- Terafest® composite wood products are not a structural material, its cannot be used as a material for a load-bearing structure, e.g. for balconies, raised decking and hatches.
- The boards may show slight dimensional variations. The manufacturing tolerances are as follows: width +/- 2 mm, thickness +/- 1 mm, length +/- 10 mm, and the maximum longitudinal deflection is 5 mm per meter of length.

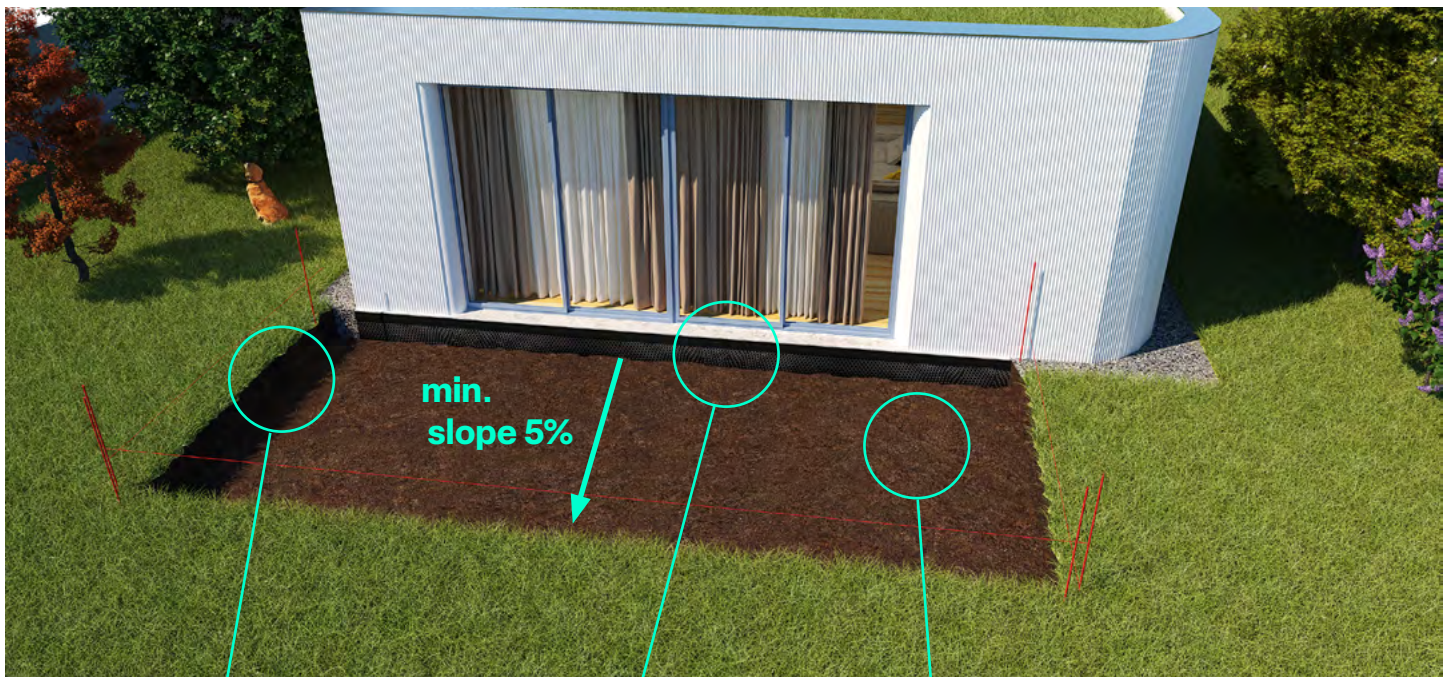


- 140 Infnit is a natural product, minor discolorations may appear deviations that do not affect quality or service life.
- We recommend to combine the boards appropriately to create a natural look for the decking.

1.A Preparatory work - decking on the ground subsoil

If you are laying the decking on ground subsoil, follow this section of the instructions. If the decking will be placed on concrete slab, asphalt or waterproofing foil, continue with the instructions in chapter 1.B.

As first mark an area where terrace will be placed by a string or color spray. We recommend to extend an area by at least 25 cm on each side for decking installed on ground subsoil, it will ensure enough space for concreting the curbs. Remove a layer of soil to a depth of 25-40 cm in the marked area, excavate with a slope of at least 5% to ensure proper water drainage and prevent its accumulation under the decking. It is important to compact the subsoil use a compaction tool after removing the soil. The base layer must to be a stable and solid enough for installing the decking.

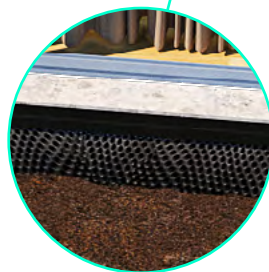


(decking measuring approx. 7.5 x 3.4 m)



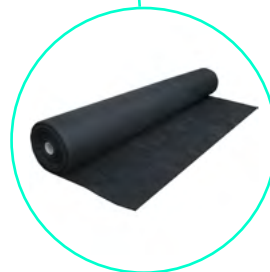
Detail 1

In the case of a decking at ground subsoil, it is recommended to concrete the curbs separating the lawn from the decking along the edges.



Detail 2

Always remove soil up to the house's studded foil.



Detail 3

We recommend to use a separation layer of non-absorbent geotextile for overgrown terrain to prevent gravel from mixing with the original soil and ensure long-term water permeability of the gravel drainage layer.

1.B Preparatory work - decking on concrete, asphalt subsoil or waterproofing foil

An installation of decking boards on tile pavement as subsoil has its own specifics and its must be carefully considered, this method of constructing a decking is not always suitable. The water could accumulates and remains there for a long time on pavement subsoil with a small or zero slope. The decking boards or underconstruction must not be permanently stay in water. The drainage of subsoil is very important nad installation of decking boards on not-drained subsoil is a significant risk.

Another problem may occur when the roof waterproofing foil is installed on not sufficient rigidited a layer of thermal insulation. There is a risk the decking pads or pedestals are pushed through the insulation, which could damage both the insulation itself and the stability of the decking. In this case, it is necessary to reinforce the subsoil, according to the instructions of an authorized designer.

Only after the preparation of the reinforced areas can the installation of the decking itself begin. The assembly instructions continue with part 4 - the placement of pads and joists.



Detail 1

If the existing concrete subsoil does not have sufficient slope or strength, it is necessary to create a new slope (by concreting) towards the drains.



Detail 2

Old concrete can be absorbent and retain water, which can damage the decking. Therefore, it is necessary to cover these areas with PE foil and ensure water drainage towards the drains.



Detail 3

Modern flat roofs usually have sufficient slope. If there is no slope or water accumulates somewhere, the slope can be supplemented with wedges of high-strength polystyrene, which are covered with waterproofing foil.



Detail 4

The waterproofing foil must always be protected from mechanical damage during installation work. A non-absorbent geotextile is usually used for protection.

2. Gravel drainage layer

A properly prepared gravel layer ensures safe infiltration of rainwater into the soil under the decking and helps to drain excess water outside the decking area during prolonged rains. It is necessary to create a gravel layer in two parts. The bottom layer consists of coarse gravel of the 8-32 mm fraction with a thickness of at least 15 cm, which ensures drainage and stability of the base layer. The gravel layer should be thoroughly compacted, and if you use a less powerful vibrating plate or manual compaction, it is necessary to compact it in layers to achieve the necessary strength.

The upper part of the gravel layer consists of a leveling layer of fine gravel of the 4-8 mm fraction with a thickness of 5-8 cm, which serves to final level the subsoil. This layer must also be properly compacted for further assembly of stable decking.



Detail 1

Level the gravel layer using leveling T-bars



Detail 2

Vibrating plates are most often used for compaction.



Detail 3

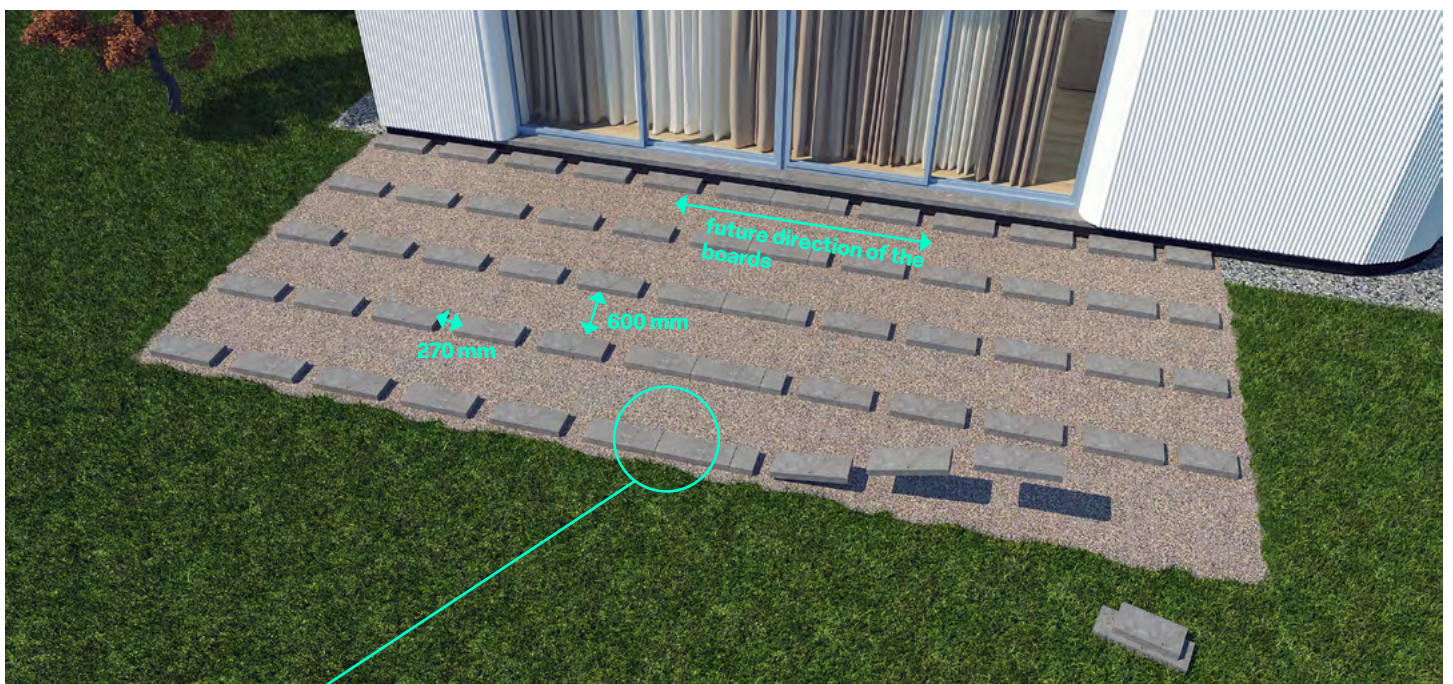
A hand rammer can also be used at home.

3. Laying the base concrete tiles

You will start laying concrete paving tiles into the compacted gravel bed to better stabilize the joists. A proven solution is to use, for example, a concrete curb with dimensions of 500 x 200 mm and a thickness of 50 mm, or it can be replaced with another suitable one. The distances between the tiles must be in accordance with the future layout of the decking joists, so it is very important to carefully plan and draw out the laying.

The recommended installation on the AL-BLACK system in family houses is maximal distances between the curbs are 270 mm in the direction of the joists and 600 mm perpendicular to the decking boards (applies to 500 x 200 mm curbs).

The recommended installation for public spaces with higher expected loads, it is necessary to lay the concrete tiles with smaller spacings in order to ensure a denser distribution of the decking joists and thus increase the overall stability of the structure; detailed values of the distances between the joists are described in part 4 of this manual.



Detail 1

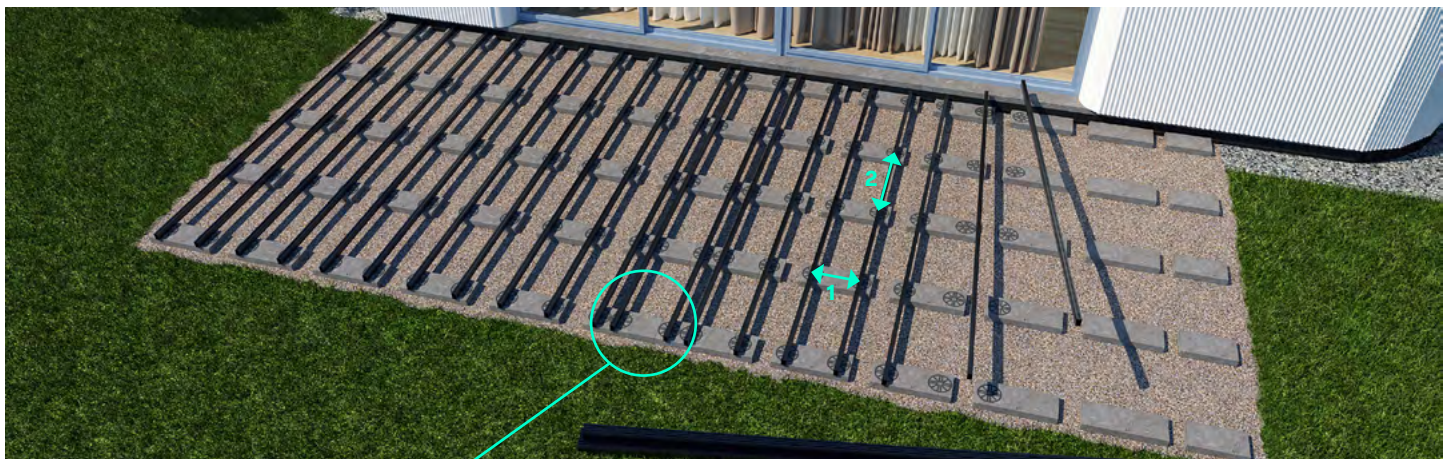
For decking longer than 6 m, it is necessary to thicken the concrete boards, on which double decking joists are then laid.

4. Laying pads and supports

The minimum distance between the bottom edge of the board and the ground level must be at least **10 cm**, and the entire decking structure must be adapted to this. The joists are always placed on rubber pads or on rectifying pedestals. The pads help protect the joists from moisture, ensure better ventilation and eliminate minor unevenness of the base. The pads also extend the life of the entire decking by reducing the risk of damage to the joists due to direct contact with the concrete.

For ordinary decking of family houses, low rubber pads are sufficient, which ensure the necessary height and protection of the joists. If low decking joists are used, it is necessary to choose suitable pads so that a minimum height of **10 cm is achieved between the bottom edge of the board and the ground**. The minimum height of the joist itself is not strictly defined, as long as the low supports are properly supported and the condition of minimum distance from the ground is met. For roof decking or where there are larger height differences, it is recommended to use rectifying pedestals, which allow the decking to be raised by 35-380 mm.

As first, place pads or pedestals on the underlying concrete tiles. The joists do not need to be anchored in the ground. The distances between the joists must correspond to the values in Table 1 and 2.



Detail 1

At the point where the boards are connected, the joists must be doubled. The maximum overlap of the board from the edge of the joist is 50 mm. The maximum overlap AL joist is 100 mm.

Table 1

Angle between board and joist	maximum unsupported parts of boards		
	90°	45°	30°
RECOMMENDED distance A between joists for commercial and residential premises according to EN 15534-4. Decking load capacity 1,100 kg/m ²	250 mm	175 mm	125 mm
MAXIMUM allowed distance A between joists for commercial and residential premises according to EN 15534-4. Decking load capacity 800 kg/m ²	300 mm	210 mm	150 mm
MAXIMUM allowed distance A between joists for residential premises per ASTM D6662-01 and ASTM D7032-04. Decking load capacity 450 kg/m ²	350 mm	250 mm	175 mm

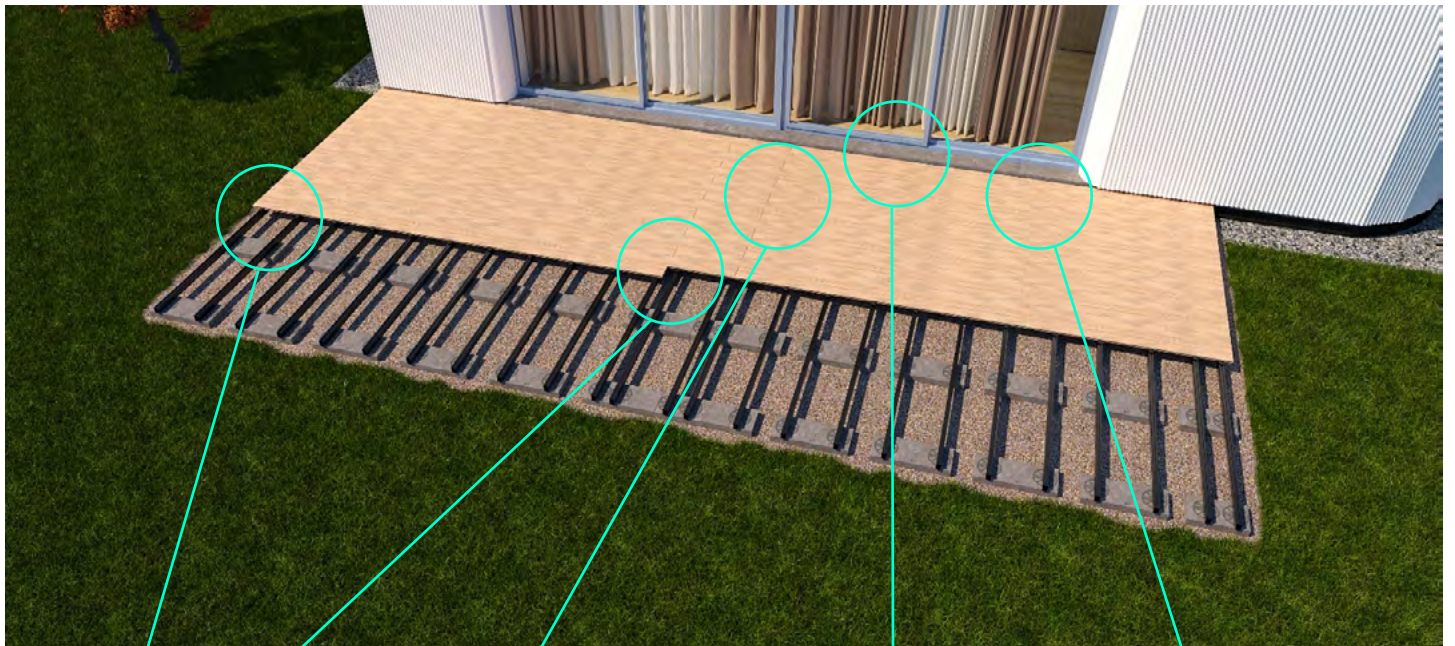
Table 2

	maximum unsupported parts of joists
AL-BLACK 35x50 mm	800 mm
AL-SMART 25x35 mm	400 mm
AL-SMART 40x40 mm	600 mm
AL-SMART 75x40 mm	1000 mm
WPC joist 50	500 mm

5. Installation of deckign boards

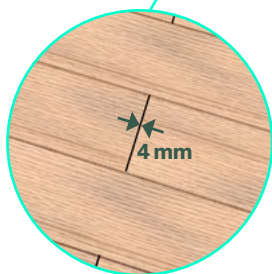
It is necessary that the **lower edge of the board is at least 10 cm above the ground** for proper ventilation of the decking. The correct placement of the joists is then key to the successful installation of the 140 Infnit decking boards. If the supports are placed correctly, installation of decking boards is easy and the structure remains strong and durable.

It is necessary to leave a dilatation gap of 4 mm to compensate for changes in the size of the boards due to temperature changes (see Detail 2). If the installation is carried out at temperatures below 10 °C, the dilatation gaps should be increased to 5 mm. It is also necessary to ensure that the boards do not overhang more than 50 mm from the edge of the support (see Detail 1). This will ensure the stability of the entire structure and prevent excessive stress and possible damage to the boards.



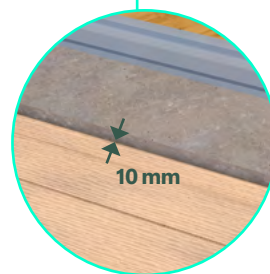
Detail 1

The maximum unsupported part of the board from the edge of the joist must not exceed 50 mm. This rule applies both when doubling the joists and when laying the boards at the ends of the decking.



Detail 2

The dilatation gap between the connected boards is min. 4 mm. When installing below 10 °C, the gap increases to 5 mm.



Detail 3

The ventilation gap between the boards and the wall is min. 10 mm. When installing below 10 °C, it increases to 12 mm.



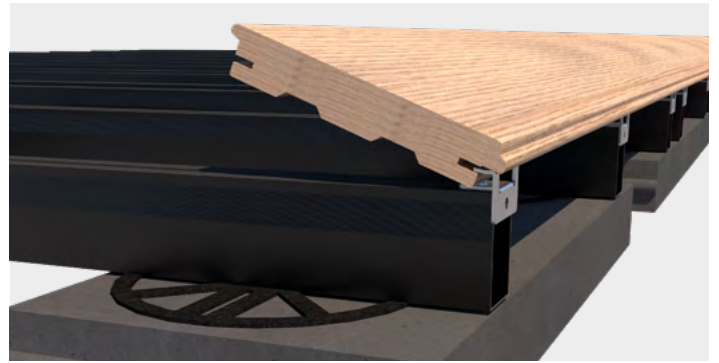
Detail 4

If the decking is at ground subsoil, we recommend to install a ventilation profile in the last row.

6. Detail of working with clips (model situation in the AL-BLACK system)



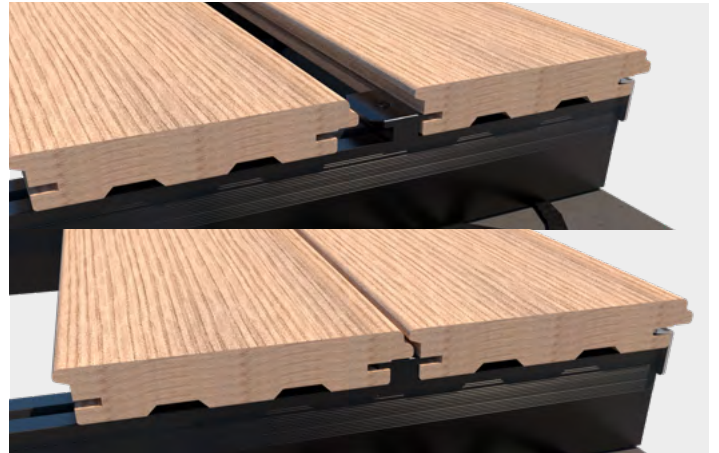
Every intersection of the joist and the board must be fixed by clips with screws. As first, attach the START clips to the ends of each joists, where the first decking board will be installed. For the last board, we recommend to use the CLICK START clips.



Then, fix the first board.



Prepare the AL-BLACK Klip Standard 140 Infi nit PRO clips and place them into the groove in the joist, hammer them into the groove in the board and then drill the clips into the aluminum joist. The joists do not need to be pre-drilled.



Continue in this way with other boards.



Provide each board with one stabilizing fixation point, which we insert into the groove in the joist. The fixation point will prevent the boards from shifting horizontally. It is important to “stab” the board at the point of the protruding part.

Installation of decking boards to WPC or wooden joists

It is necessary to predrill WPC joists before screwing into the joists, in the case of installation on a WPC joist. Use a drill with a diameter of 2 mm for 3.5 mm screws. There are used the stainless steel screws 3.5 x 35 mm for WPC joists 50x50. Tighten carefully, with a tool with a set torque.

7. Completing the installation

Finishing work is essential to ensure the aesthetic appearance, long service life and proper functionality of the decking. Proceed as follows:

Finishing boards - edge adjustments and installation

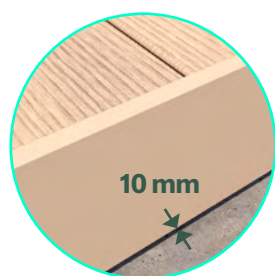
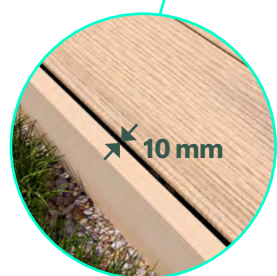
As last step of installation is cutting of the overlaps of the decking boards. When all the boards is installed you can all at once cut the overlaps in so as to avoid problems with the expansion of the composite material. Cover the edges of the decking by finishing boards to cover the underconstruction.

Preparation of ventilation gaps

The decking is separated from the surrounding terrain either with a finishing boards or a curb. It is always necessary to ensure a ventilation gap of at least 10 mm (see image below). **This ventilation gap is essential for the proper functioning of the decking.** If you miss the ventilation gap, it can lead to problems with the decking due to insufficiently ventilated area under the terrace and it also makes it impossible to file a claim. The ventilation gap is created either under the finishing board from bottom side (if there is no risk of grass clogging), or between the finishing board (curb) and the decking board (if the decking is adjacent to a lawn and there is a risk of the joint becoming overgrown with vegetation).

Installation of finishing boards

We recommend to use the stainless steel screws 4 x 60 mm, to fix the finishing boards. The finishing boards are fixed by screws into the decking boards, to maintain the ventilation gap between the finishing board and the edge decking board, use a 10 mm leveling pad. Pre-drill the hole 10mm from the top edge of the decking boards for the screw along the entire length (e.g. a 4 x 60mm screw with a 3mm drill bit), and fix the finishing board in at regular intervals of approx. 400mm. For bent or heavily loaded finishing boards, shorter the distances between the fixation points. If necessary, you can shape the finishing boards after heating.



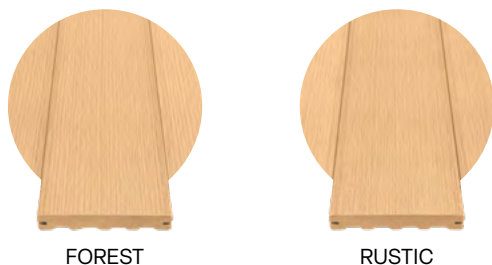
Product portfolio for installing the 140 Infit profile

Decking boards

The basis of the system is the 140 Infit decking board. It is supplied in adjusted sizes according to the specific project.

profile	dimensions	standard length	custom length	weight
140 Infit	140 × 22 mm	4 m	2 - 6 m	3,4 kg/lm

Textures



Colors



Joists and clips

The basis of the system is the 140 Infit decking board, which is supplied in a standard length of 4 meters. However, at the customer's request, it is possible to supply boards in adjusted lengths according to the specific requirements of the project, at no extra charge.

Type of underconstruction	AL-BLACK Clip Standard 140 Infit PRO	AL-BLACK Clip Standard 140 Infit UNI	AL-SMART Clip B	AL screw and nut for double-sided clip 140 Infit	Double-sided clip 3 mm / 5 mm	Start clip	Start clip snap-on	AL Start clip	AL-BLACK Fixation point
AL-BLACK	1	1			2	1	1		1
AL-SMART			1	2	2			1	
WPC		2			1	1			

1. recommended use; 2. possible use

Approximate material consumption per 1 m²

of 140 INFINIT boards (3 mm gap)	joists	clips
7,25 lm	2,2 lm	20 pcs

Support pads

The joists must never be laid directly on gravel or grass – a support pad must always be used. The height of the pad is selected according to the required elevation of the decking. It is important to remember that the minimum distance between the substrate and the underside of the 140 Infit board must be at least 100 mm.

Low static pads

	RUBBER SHIM 3 mm
	RUBBER SHIM 12 mm
	RUBBER SHIM 15 mm
	RUBBER SHIM 20 mm

Rectification pedestals

	PEDESTAL H 35 - 50, Ø 208
	PEDESTAL H 50 - 70, Ø 208
	PEDESTAL H 65 - 100, Ø 208
	PEDESTAL H 95 - 130, Ø 208
	PEDESTAL H 125 - 215, Ø 208
	PEDESTAL H 210 - 380, Ø 208

Finishing boards

Finishing boards are available only in basic colors (i.e. not in Plus colors).

	Finishing board 70	Finishing board 90	Finishing board 120	Finishing board 150	Finishing board MAX
Texture	Forest/Smooth	Forest/Rustic	Natur/Forest	Forest/Rustic	Forest
Size	70 × 16 mm	90 × 16 mm	120 × 11 mm	150 × 19 mm	195 × 22 mm
Length	2050 mm	2050 mm	3000 mm	4050 mm	4000 mm

Decking maintenance

Decking treatment after installation

After completing the installation of the decking, **wash it with a stream of water**. With caution, you can also use a high-pressure cleaner with a maximum pressure of 80 bar, while maintaining a constant nozzle distance of approximately 400 mm from the boards. It is important to remove all dust from the decking to reduce the occurrence of water dust spots (see material properties).



Preventive measures

To keep the decking in good condition, ensure easy water drainage from the decking and sufficient ventilation of decking. Make sure that the gaps between the boards remain free of settled dirt. Fine dust, leaves, needles, etc. regularly removing by sweeping or rinsing with water from decking.

At least **twice a year** (ideally in spring and autumn) wash the entire decking with clean water. You can use a high-pressure cleaner with caution. If necessary, brush the texture of the boards with a stiffer rice brush, always in the longitudinal direction of the boards. Finally, rinse the entire decking with a stream of clean water.

Try to prevent the decking from being contaminated with oils, greases and scratches from furniture. **Remove dirt and stains as soon as possible after they occur.**

Avoid direct fire contact with the decking and protect it from hot embers. We recommend to install on a non-flammable mat under a fireplace or grill on the decking.



Never treat the TERAFEST® decking boards by stains, paints, varnishes, waxes, oils or other similar products unless they are approved by the manufacturer.

Removing dirt and stains

Cleaning of common dirt (dust, ash), **colored stains** (red wine, fruit juice)

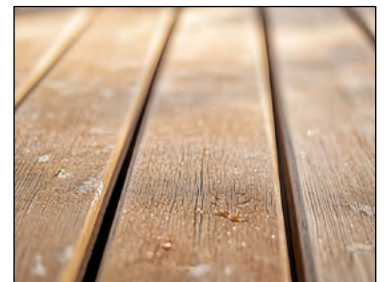
- Use water and common cleaning agents for WPC decking.
- If necessary, gently clean the stained areas with a rice brush in the direction of the boards and rinse with water.
- You can also wash the decking with a high-pressure cleaner.



Removing greasy and resistant stains

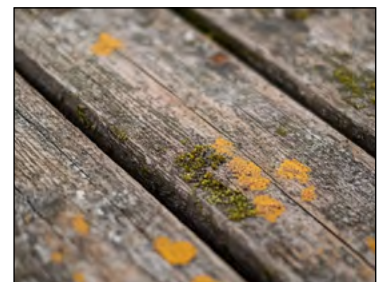
• **Greasy stains** (oils, fats, sunscreen, grill stains):

- Rinse immediately with pressure water.
- Use a degreaser (jar, soap or special products – e.g. ILKA Oil Killer).
- Clean carefully with a rice brush or high-pressure cleaner and rinse with water.
- Stain residues will gradually disappear within a few weeks due to UV radiation and rain.
- If the decking is covered, e.g. with a pergola, we recommend rinsing the decking with water several times a week after cleaning, this will speed up the color regeneration process.



• **Stubborn stains** (mold, fungi, moss, leaves):

- Use a chlorine-based cleaner (e.g. SAVO).
- Soak the decking and surrounding area before application.
- Apply the cleaner, leave to work and rinse with sufficient amount of water.
- Follow the instructions and safety instructions on the packaging.



Solving aesthetic texture changes

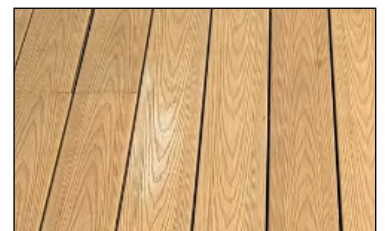
• **Water stains** (occurring in partially covered areas):

- Rinse the entire decking with clean water.
- This phenomenon cannot be completely prevented; it is less visible on textures exposed to sun and rain.



• **White stains** (occurring after very intensive cleaning)

- The stains will gradually disappear on their own within a few weeks due to UV radiation and rain.
- The regeneration process can be accelerated by more frequent rinsing with water and exposure to direct sunlight.



• **Yellowing of the texture of the boards** (caused by the maturation of the wood component):

- This is a natural process that gradually disappears.
- Accelerate it by frequent rinsing with water.

Repairing texture damage

• **Texture scratches** (movement of people and furniture):

- Brush with a rice brush in the longitudinal direction.
- Alternatively, use an abrasive fleece and rinse with water.

• **Burnt areas** (grill coals, cigarettes):

- Brush with a rice brush in a longitudinal direction.
- Proceed in the same way as for texture scratches.



TERAFEST® Material Warranty

The 25-year extended warranty on TERAFFEST® products is valid for all composite wood products against wood-destroying fungi, rot and insects under standard conditions. For all other cases, the warranty is 60 months.

This guarantee means that we will replace damaged products. If your product is not produced anymore, it will be exchanged for a similar. Under this warranty, you cannot claim any additional financial or other compensation. All work and related costs are excluded from the guarantee.

The warranty does not cover the following:

- **Color stability** – TERAFFEST® products have UV protection. However, these are wood products, and therefore color deviations may occur over time due to uneven exposure to UV radiation and moisture.
- **Maturation of the wood component** – in the first weeks or months after installation, depending on the intensity of sunlight and rainfall, the color matures. This is the leaching of lignin from the wood component in the TERAFFEST® material, which consists of wood (60%) and HDPE (40%). Lignin is a natural part of all wood species. Due to its leaching, which is caused by water and UV radiation, a color change occurs in the first weeks or months, usually with a yellow tinge. Over time and depending on weather conditions, this color change disappears.
- **Water dust stains** – these stains appear in places with different humidity (in partially covered decking, in the transition area between the covered and uncovered decking area, around garden furniture, under gutters, etc.) and due to the evaporation of water from the texture of the boards. Along with the drying rainwater on the decking, small dust particles also dry out.
- **Occurrence of static electricity** – under certain conditions, people moving on a decking made of TERAFFEST® material may encounter discharges of static electricity. This is a common physical phenomenon occurring in most materials with a share of plastics. The polarity and strength of the electrostatic charge vary depending on the types of touching materials (shoes, clothing), the roughness of textures, temperature and other circumstances. This phenomenon is not very predictable. If at all, then static electricity on decking made of this material usually manifests itself in windy weather and at low relative humidity. The intensity varies depending on the climate and age of the decking. There are no health risks associated with the occurrence of static electricity on TERAFFEST® decking and its occurrence is not a recognized reason for a complaint about the WPC material.
- **Normal dirt and texture wear**, see previous page.
- **Problems arising from poor preparation of the subsoil** and its insufficient drainage, e.g. subsidence of the subsoil under the decking.
- **Failure to comply with the installation instructions** – TERAFFEST® products that have not been installed in accordance with the installation instructions supplied with the material. The warranty also does not apply to products that have been used for a purpose other than that specified in the installation instructions.

TERAFFEST® Warranty Period	FOR DOMESTIC USE	FOR COMMERCIAL USE
BASIC	5	5
EXTENDED	25	10

