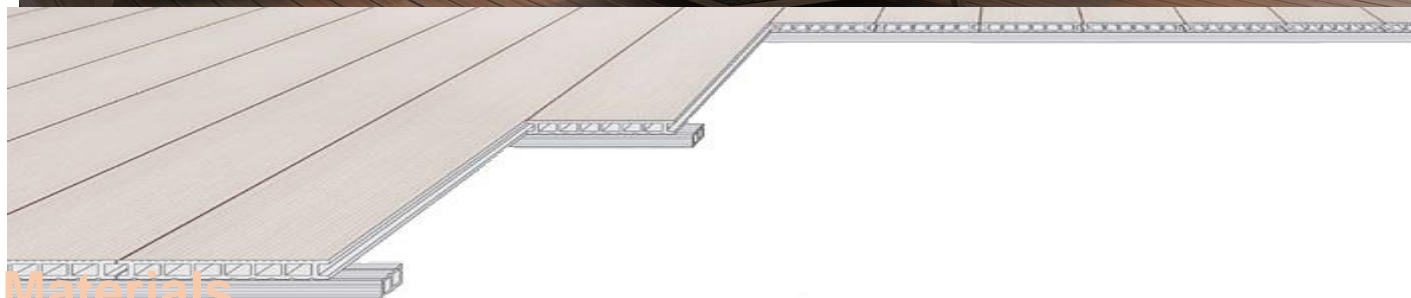






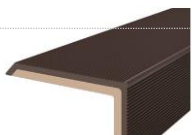

Noble Collection

INSTALATION INSTRUCTIONS AND MAINTENANCE



Materials

Noble Collection composite profiles are high quality materials containing selected wood flour and plastic (PVC) with the necessary additives. These elements are used exclusively for the construction of terraces and cannot be used for other construction purposes without having a project made by persons authorized to do so.

NAME	PICTURE	DIMENSIONS (mm)
Terrace board Noble Collection (composite profile)		140x25x2400mm, 140x25x4000mm
Joist Noble Collection (composite profile)		30 x 50 x 2400mm, 30 x 50 x 4000mm
Mounting Clips		Set 10/100/100 (10 starting clip, 100 mounting clip, 110 mounting screw)
		Mounting clip 500 pcs. – 1 set
		Starting clip 500 pcs.- 1 set
		Starting clip 50 pcs. – 1 set.
Mounting clips System Pro Clip Black		Set 500/500 (500 pcs. mounting clip 500 pcs.. mounting screw + 1 BIT)
		Set 10/100/110 (10 starting clip, 100 mounting clip 110 mounting screw + 1 BIT)
		Set 3/40/43 10/100/110 (3 starting clip, 40 mounting clip , 43 mounting screw + 1 BIT)
Composite corner profile - finishing strip „L”		60/35 x 6 x 3000mm
Composite finishing strip Noble Collection (composite profile)		60 x 6 x 2400mm, 60 x 6 x 4000mm

Prymus S.A. also offers different kinds of elements for levelling or obtaining a proper decline of a terrace by raising it to the required height.

Coloring

In the first period of using composite profiles under the influence of external conditions, they are subject to seasoning. The color stabilizes after a few months reaching its final saturation.

Due to the content of wood fibres, individual composite profiles, especially those from different production batches, may differ in colour. The colours and surface finishes may be different for different deliveries. It does not affect their durability and it is not a defect of the product. Before starting installation works, examine visually composite profiles against their appearance and defects. To achieve a natural effect, composite boards should be mixed before mounting, bearing in mind the direction of brushing.

Substrate preparation

Terraces, stairs, communication walkways made using Prymus S.A. composite profiles are mounted on a previously prepared substrate, which should

be made according to commonly recognized practice and applicable building regulations. Very often, making a project of substrate preparation is necessary to maintain the maximum safety of future users. The substrate preparation is the sole

responsibility of the contractor and the information given below are only intended as informational material. This manual has been prepared for the standard length of boards and joists of 2,4 m and 4 m..

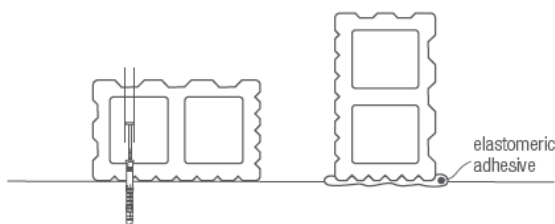
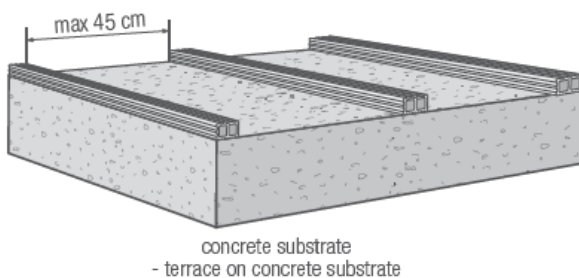
The most common solutions include::

- 1) Concrete substrate, reinforced concrete;
- 2) Substrate on the ground;
- 3) Substrate on a balcony or inverted roof structure with waterproofing.

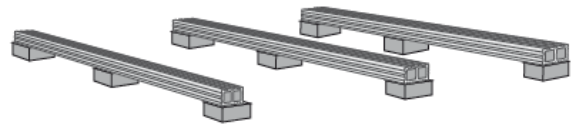
1) CONCRETE SUBSTRATE, REINFORCED CONCRETE::

- **The terrace is mounted on composite joists attached to the substrate.**

Lay joists on a concrete slab (do not embed them in the concrete), fixing with concrete dowels or elastomeric adhesive. It is allowed to install joists arranged vertically using an elastomeric adhesive (only on flat surfaces, adjacent on the entire length of the joist to the ground).



Joists can be laid also on a steel, wooden or aluminum structure, or on plastic brackets. The maximum distance between the support points of composite joists is 35 cm. All these types of supports must be permanently attached to the substrate. The composite joist must be attached (drilled, using a dowel or using carpentry joints 90°). The substrate must be flat and stable with a slope of minimum of 1% from the walls of the building to the outside. Such a terrace slope influences the optimal drainage of water from the terrace surface.



joists on concrete cubes

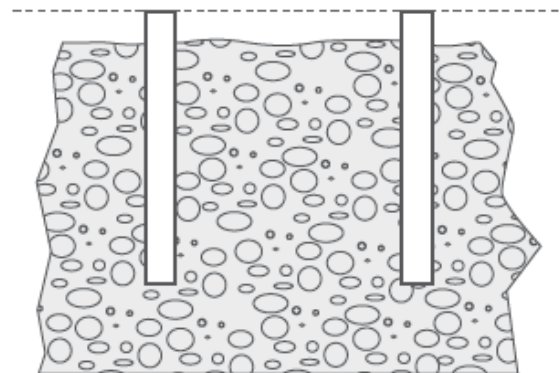
2

a) SUBSTRATE ON GROUND:

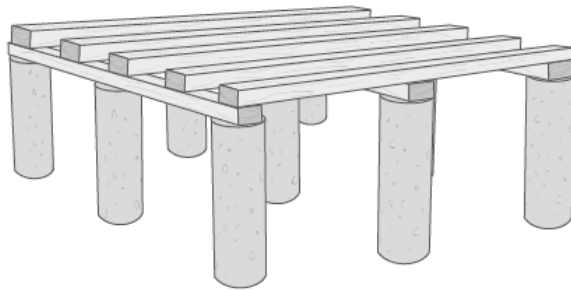
- **Terrace installed on concrete slabs.**

In order to prepare the substrate in such a way, you shall remove a layer of soil to a depth of approx. 20 - 30 cm, and bring gravel in this place. Compact the whole area to prevent further settling of stones. You shall lay concrete slabs on the so prepared substrate at such a distance from each other so that the free space between the support points of joists shall not exceed 35 cm .

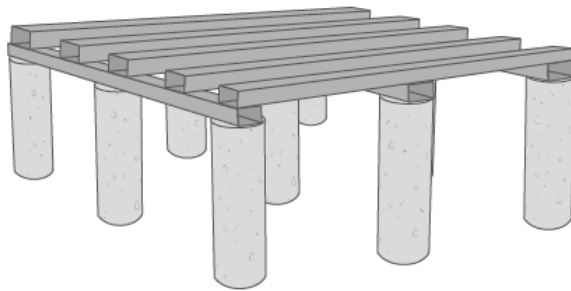
On such prepared subfloor, concrete slabs should be placed at such a distance from each other that the free space between joist support points should not exceed 35 cm in the case of a WPC joist and accordingly more in the case of a joist material with higher bearing capacity than the composite joist. The joists must be permanently attached to the concrete slabs. The weight of concrete slabs must be large enough to ensure adequate stability and maintenance of the structure. In this case you shall take into account the possibility of ground movement during the winter, which will impact on the terrace surface, for which Prymus S.A. Company assumes no responsibility.



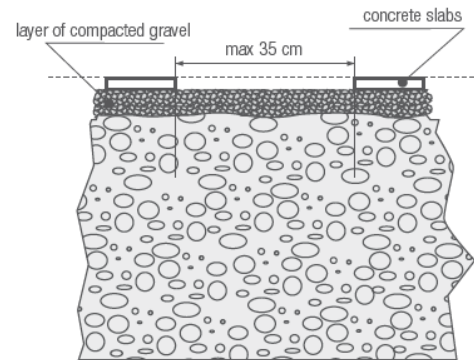
substrate on ground
- terrace on concrete supports



substrate on ground
- terrace on concrete supports and wooden structure



substrate on ground
- terrace on concrete supports and metal structure

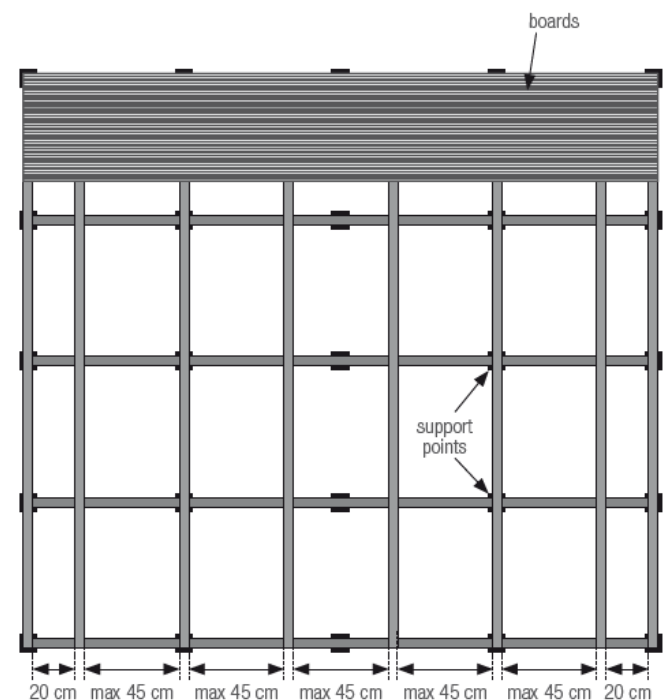


substrate on ground
- terrace on concrete slabs

2) SUBSTRATE ON A BALCONY OR STRUCTURE OF AN IN- VERTED ROOF WITH WATERPROOFING:

• Floating terraces are installed on a metal truss.

In case of floating terraces, where there is no opportunity to penetrate directly to the substrate, which takes place where the horizontal waterproofing is made, e.g. balconies, garages, etc., the boards must be laid on a suitable self-supporting structure in the form of a truss made of steel or aluminum joists with a suitable profile, which will bear the load of a terrace and stiffen it. The first layer of joists on lower or mostly on higher support points in the form of adjustable supports or concrete blocks, properly levelled. Then the second crosswise layer of steel or aluminum joists, maintaining the clearance spacing between boards to be max. 45 cm. In this case, it is particularly important to reduce the spacing of the first rows of joists to 20 cm. This is to provide additional stability and operation of the structure that is not permanently attached to the substrate



Floating terrace on a metal truss

2b) SUBSTRATE ON GROUND:

• Terrace installed on concrete slabs.

In order to prepare the substrate in such a way, you shall remove a layer of soil to a depth of approx. 20 - 30 cm, and bring gravel in this place. Compact the whole area to prevent further settling of stones. You shall lay concrete slabs on the so prepared substrate at such a distance from each other so that the free space between the support points of joists shall not exceed 35 cm.

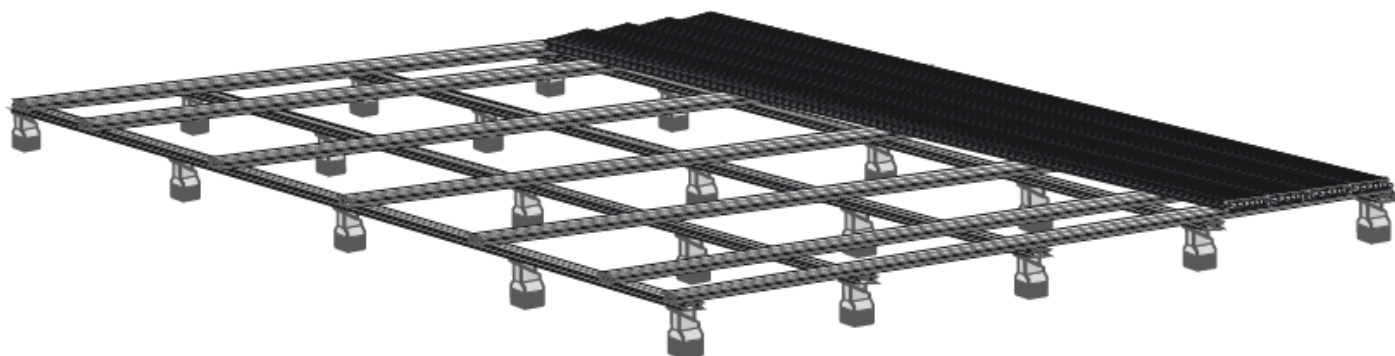
On such prepared subfloor, concrete slabs should be placed at such a distance from each other that the free space between joist support points should not exceed 35 cm in the case of a WPC joist and accordingly more in the case of a joist material with higher bearing capacity than the composite joist. The joists must be permanently attached to the concrete slabs. The weight of concrete slabs must be large enough to ensure adequate stability and maintenance of the structure. In this case you shall take into account the possibility of ground movement during the winter, which will impact on the terrace surface, for which GAMRAT Company assumes no responsibility.

Note:

• During the preparation of the substrate, you shall pay attention to water freely flowing out of the terrace. This applies to both terraces made at the ground level and

above the ground level. In order to facilitate water drainage, it is recommended to provide a slope of minimum of 1%, i.e.: 1 cm per 1 m, outwards from the

building. This applies to both the terrace boards and the structure, on which the joists are fixed.

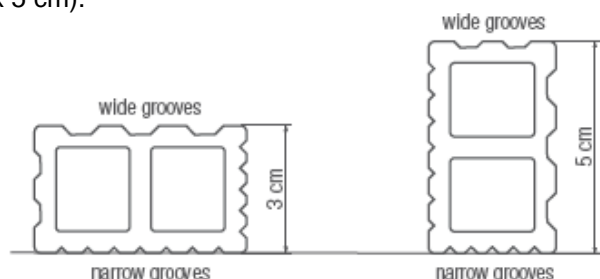


Floating terrace on a metal truss laid on levelling plastic supports

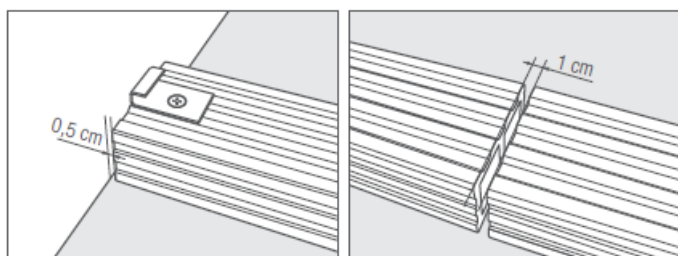
Laying joist

1. HORIZONTAL AND VERTICAL POSITIONING OF JOISTS AND EXPANSIONS GAPS

Joists shall be laid parallel to each other (except for cutting terraces at an angle of 45°). It is allowed to lay joists in the horizontal position, which causes the terrace to be additionally raised by about 3 cm or in the vertical position, which causes the terrace to be additionally raised by about 5 cm (joist of dimensions 3 x 5 cm).



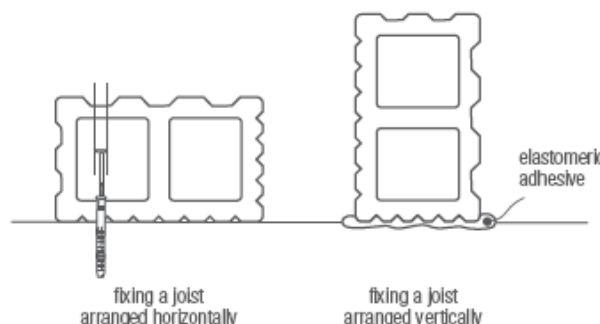
Laying shall be done so that the joists lay flat with wide grooves up. These grooves are made so that mounting clips fit into the grooves, which will be helpful at further installation step. Remember to leave a 0.5 cm gap between the wall and a joist. In order to provide good drainage of water from the surface under the terrace, a 1 cm gap shall be used when joists are joined using a butt joint. These dilatations are necessary for the proper behavior of the components during the use and free outflow of water from under the boards.



2. FIXING JOISTS TO SUBSTRATE

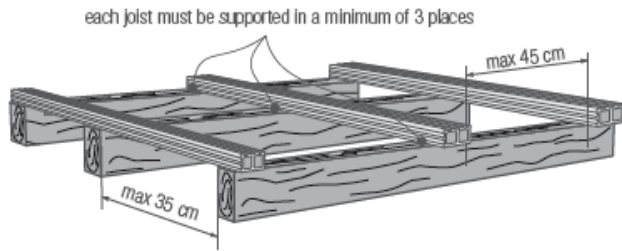
Joists shall be permanently fixed to the substrate with dowels (not included) or an elastomeric adhesive. To do this, drill a hole in the upper part of a joist using a drill bit of a diameter greater than the dowel head diameter. Then, through this hole, drill a hole in the joist bottom and the substrate using a cemented carbide drill bit with a diameter adapted to the dowel size. Through drilled holes, fasten the joist to the substrate with a dowel.

You can use the fast installation dowels, what significantly reduces the time of fastening joists. The maximum distance between the points of mechanical fastening the Gamrat joists is 50 cm. It is allowed to install joists vertically only on flat surfaces (to which a joist adheres on its entire length). Fix them with an elastomeric adhesive.

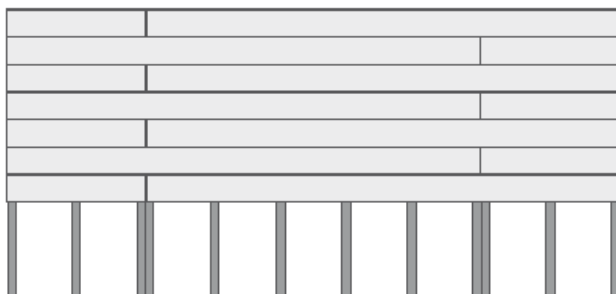


3. SPACING AND ARRANGEMENT OF JOISTS

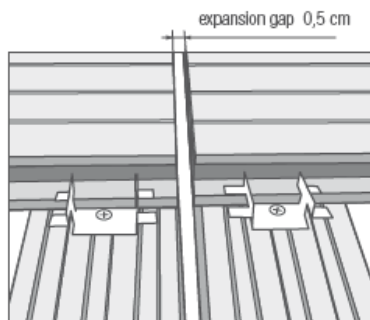
The maximum distance between joists (places where the board is supported) shall not exceed 45 cm in any place, and every single joist regardless of its length must be supported in a minimum of 3 places, the distance between which shall not exceed 35 cm.



If it is necessary to join boards using a butt joint or to make a terrace with chamfered corners, you shall be sure to install an additional joist, so that the ends of each board are supported by a separate joist and are fastened with separate clips.

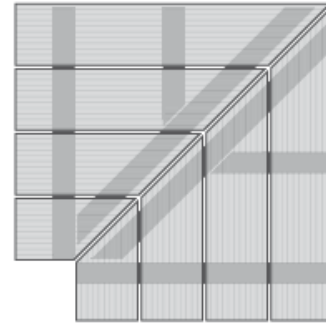


arrangement of joists when using butt joints of boards - terrace with a staggered arrangement

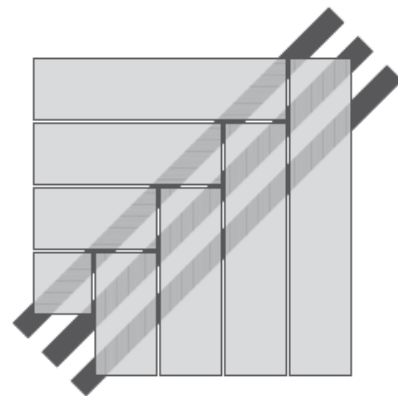


boards joined using a butt joint and supported by two joists

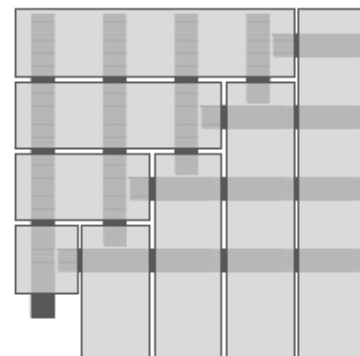
When performing non-standard joints, for example, corners at an angle of 45°, joist shall be placed under each board separately, so that the ends of boards are supported on a separate joist. Remember to leave a 0.5 cm gap between the boards and joists to allow free expansion of the material.



exemplary arrangement of joists with boards cut at an angle of 45°



exemplary arrangement of joists for herringbone pattern of terrace boards



exemplary arrangement of joists for herringbone pattern of terrace boards

Notes

- Do not lay joists in a vertical position on substrates when they are pointwise supported (e.g. concrete slabs, plastic brackets, etc.).
- Installing joists arranged vertically is allowed only on flat surfaces (to which the joist adheres over the whole surface). They shall be installed using an elastomeric adhesive.
- It is also allowed to lay terrace boards directly on wooden, aluminum or galvanized steel sections. In this case, follow the guidelines of manufacturers of these sections because each manufacturer may recommend different distances between support points depending on their size and for example, wall thickness. Normally, however, it is assumed that the distance between support points for aluminum sections is as follows:
 - 30x30 mm wall thickness of 2.0 mm, it is 50 cm,
 - 30x50 mm wall thickness of 2.0 mm, it is 80 cm (when laying at the height of 50 mm).
- In case of wooden joists you shall use properly

prepared and impregnated joists made of hard wood species. Using joists made of soft wood (e.g. Pine) will cause them to get rot too early what will lead to damaging the terrace. In none of these cases, GAMRAT assumes no responsibility for the reliability and stability of the entire structure.

•Note that the maximum distance between joists (between the support points of boards) may not exceed 45 cm when measuring from the edges of adjacent joists (i.e. the clearance between the joists).

•For a significant volume of traffic (e.g.: a walkway for pedestrians, stairs), or for a terrace with highly concentrated loads (e.g.: placing heavy items on the terrace), the distance between the support points of joists and the distance between them shall be properly reduced.

•In order to increase the supporting surface area of joists and thereby to increase the stability of the whole structure, you can use low- expandable polyurethane foam, by injecting it between a joist and substrate at the greatest possible length of joists.

fastening subsequent boards.

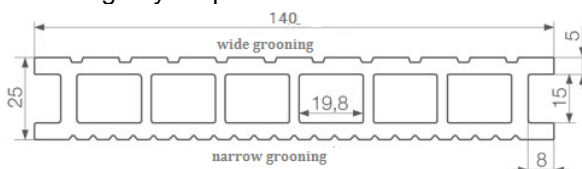
When using joists other than system joists, appropriate screws should be used to fasten boards with mounting clips. The screws attached to the kit are screws for a WPC joist. In the case of using wooden or metal joists, you need to obtain appropriate screws on your own.



Laying Terrace Boards

1) TYPES OF GROOVES AND ARRANGEMENT OF BOARDS

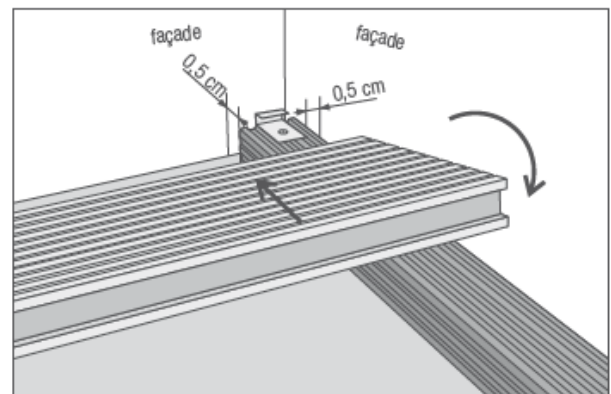
The Noble Collection composite profile - a terrace board with a width of 14 cm is a two-sided product. One side has wide grooves while the other side has narrow grooves. Installation can be done by any side up according to your preferences.



To identify clearly product sides, one side of the board is printed. During installation, pay attention to have the printed side always on one side of the installed terrace. This ensures that the boards are installed with maintaining the same direction of brushing. This arrangement minimizes the possibility of differences in shades after the installation and during the use.



Start installing a board from fastening start clips to the joist. You shall leave an expansion gap of min. 0.5 cm between the board and the wall.

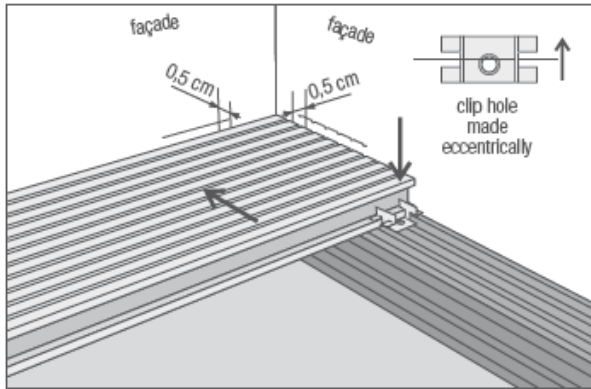


Installation of the first board with a start clip

After fastening the start clips, place a board to have its lower tongue properly fixed by the start clip. Push the board into its place and screw in the second edge of the board using a mounting clip. It should be noted that in order to facilitate the installation, the hole in the clip is made as an eccentric one. This allows you to freely screw the clip in before placing the next board.

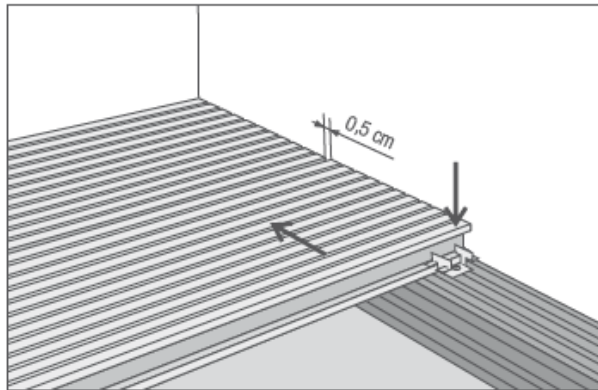
2) FASTENING BOARDS

Fastening boards to joists is done using the supplied mounting kit. The set includes screws, start clips – for installing the first board, and mounting clips – for



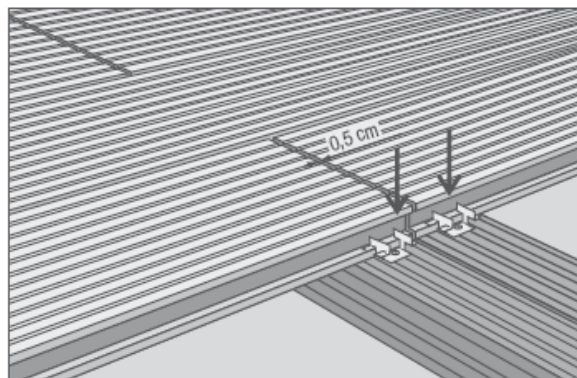
Installation of the first board with a mounting clip

Clips are designed so that there is an expansion gap of 0.5 cm between the subsequent boards.



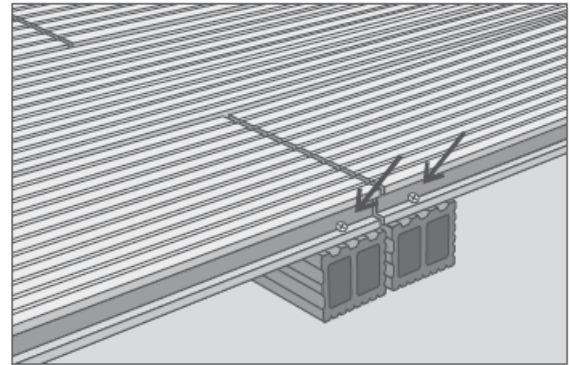
Installation of a subsequent board with a mounting clip

In the event of connecting boards using a butt joint, pay attention to that the expansion gap there between is 0.5 cm. The ends of the boards must rest on separate joists and be secured by separate clips. For a better appearance, it is recommended to cut off approximately 10 mm from both ends of the board before its installation, as they are slightly rounded after brushing.

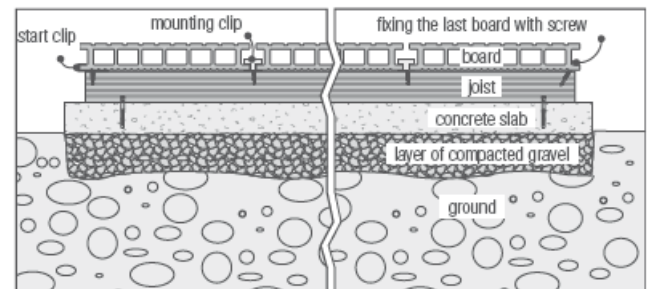


butt joint of boards on two separate joists (expansion gap 0.5 cm)

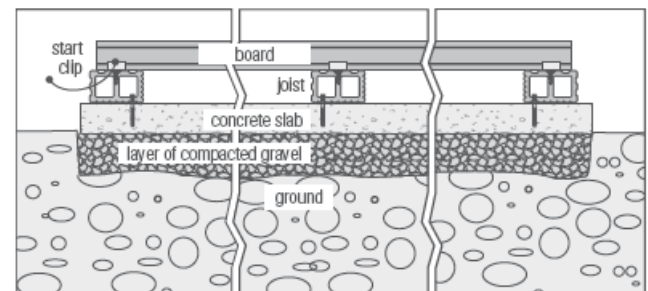
The installation of the last board shall be performed by screwing the screw at an angle through the bottom edge of the board to the joist. There is a possibility of cutting a board lengthwise, crosswise and at an angle. To do this, use widely available professional tools like for cutting wood planks.



Installation of the last boards with screws screwed at an angle



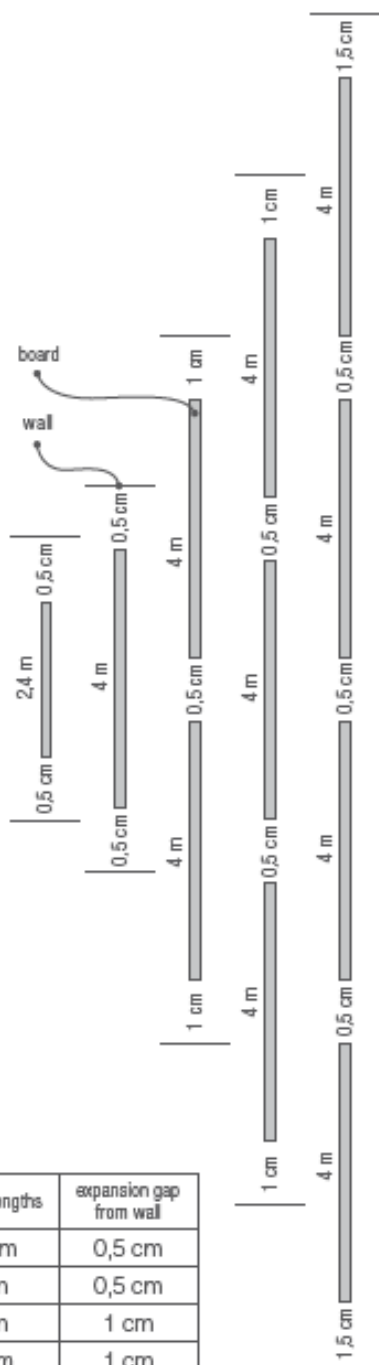
terrace view from the fronts of boards



terrace view from the sides of boards

Notes:

- You shall leave a minimum expansion gap, which depends on the sum of the lengths of the boards (on the length of the terrace). A minimum of 2 mm per 100 cm of the sum of the lengths of the boards



number of boards	sum of lengths	expansion gap from wall
1 szt.	2,4 m	0,5 cm
1 szt.	4 m	0,5 cm
2 szt.	8 m	1 cm
3 szt.	12 m	1 cm
4 szt.	16 m	1,5 cm

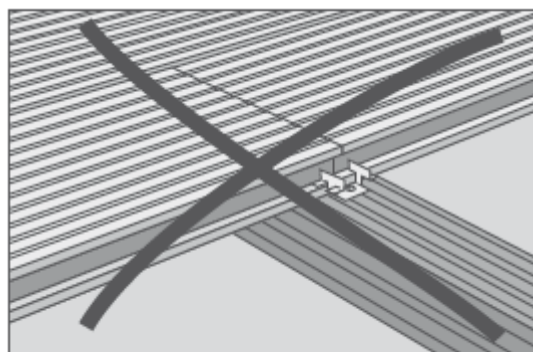
expansion gap between the board front edge and wall depends on the sum of the lengths of boards

•The expansion gap between the side edge of the board and the wall is dependent on the width of the terrace (the sum of the widths of the boards). It is calculated in the same way as the of front expansion gap: at least 2 mm per 100 cm of the sum of the widths of the boards.

•The internal side and front expansion gaps of the terrace boards shall be of 0.5 cm. These expansion joints are defined

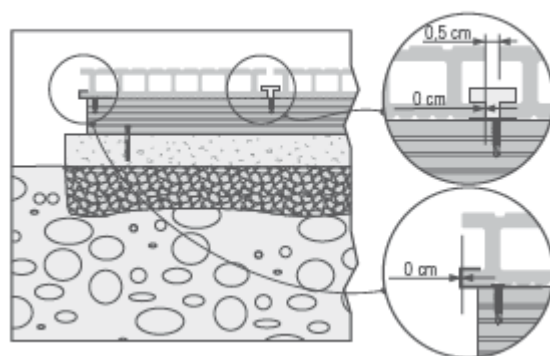
by the mounting clips.

•When joists are joined using a butt joint, pay attention to leave a 0.5 cm expansion gap. The ends of the boards must rest on separate joists and be secured by separate clips.



improperly made butt joint of 2 boards

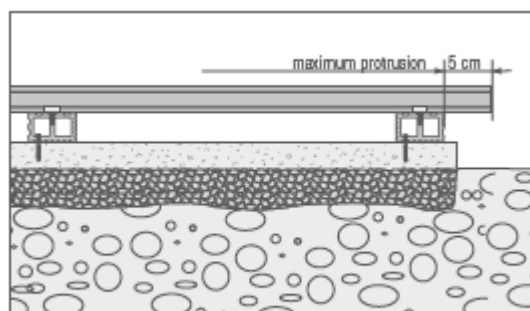
Fix clips to the joist using stainless steel self-drilling screws (they are included to the mounting kit with clips). When fixing a board in a clip, make sure it is pushed against stop. There shall be no free space between the board and the clip. This allows you to obtain a uniform expansion gap between the boards of 0.5 cm



•Installation of the last board shall be made by screwing in the screw at an angle.

•The front of the board shall not protrude over the joist by more than 5 cm.

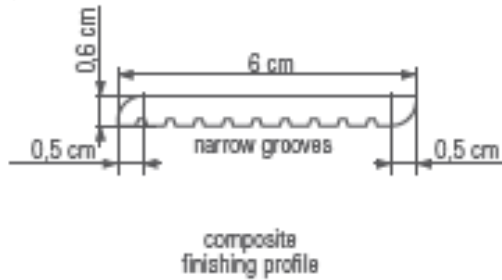
•During the period of use due to the working of the boards, the expansion joints between individual boards may vary, depending on the conditions of use and exposure.



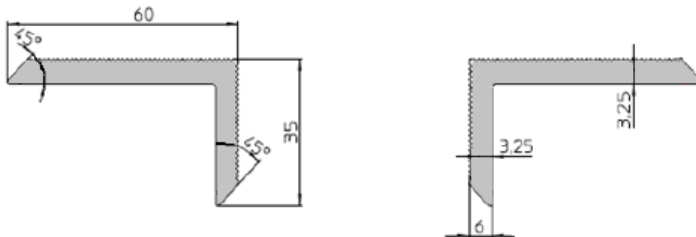
maximum protrusion of board over joist is 5 cm

Terrace edge finishing is made using:

1) composite profiles;

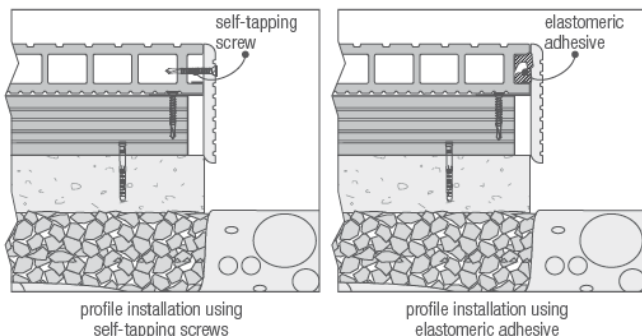


2) composite corner profile- finishing strip

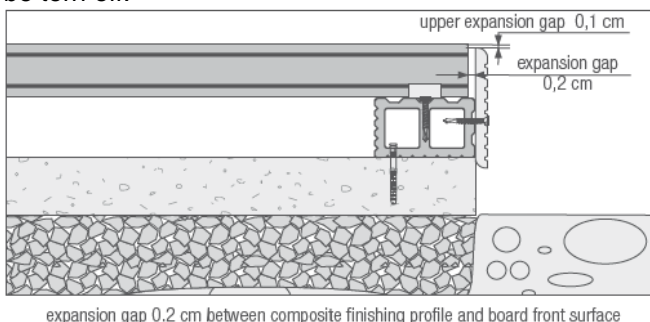


1) Finishing with a composite profile

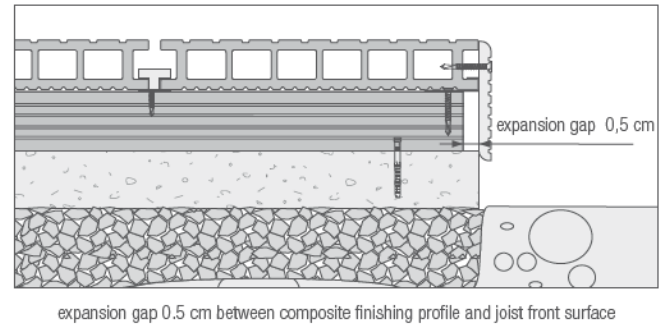
At the corners of the terrace, cut the finishing profiles at an angle of 45°. Fix them using self-tapping screws or an elastomeric adhesive. The elliptical holes, used for the screws, are designed to provide the minimum possible movement.



On the face of the board, fix the finishing profile to the side surface of the joist. Leave the expansion gap of 0.2 cm between the finishing profile and the front surface of the board. In addition, lower the profile by 0.1 cm from the upper surface of the board. The board elongates with increasing temperature and humidity and lack of this expansion gap may cause the profile to be torn off.

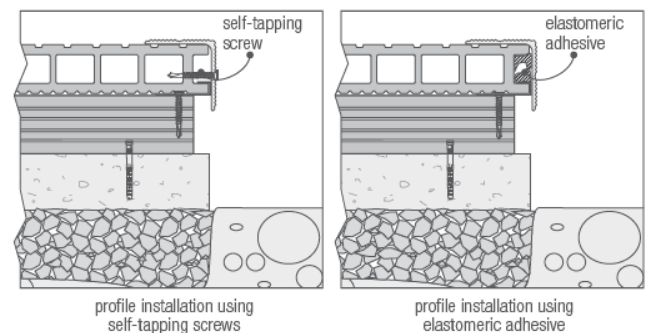


On the side of the board, fix the finishing profile to the side surface of the board. Leave the expansion gap of 0.5 cm between the finishing profile and the front surface of the joist. The joist elongates with increasing temperature and humidity and lack of this expansion gap may cause the profile to be torn off.

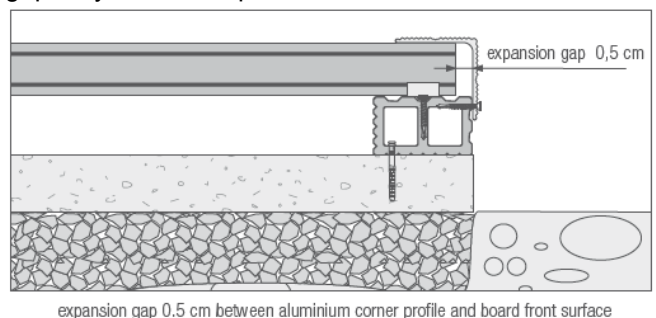


2) Finishing with an composite corner profile

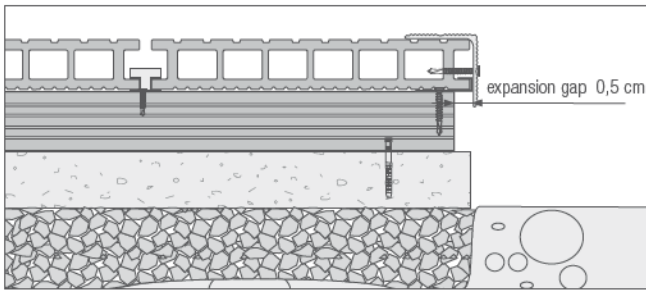
Installation of composite corner profiles is very similar to the composite finishing profiles. At the corners of the terrace, cut the corner profiles at an angle of 45°. Fix them using self-tapping screws or an elastomeric adhesive.



On the face of the board, fix the corner profile to the side surface of the joist. Leave the expansion gap of 0.5 cm between the corner profile and the front surface of the board. The board elongates with increasing temperature and humidity and lack of this expansion gap may cause the profile to be torn off.



On the side of the board, fix the corner profile to the side surface of the board. Leave the expansion gap of 0.5 cm between the corner profile and the front surface of the joist. The joist elongates with increasing temperature and humidity and lack of this expansion gap may cause the profile to be torn off.

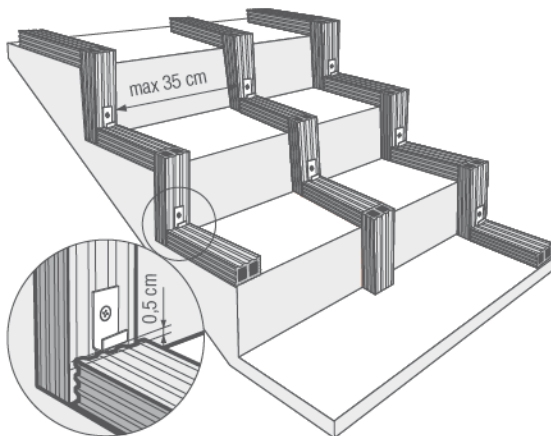


expansion gap 0.5 cm between aluminium corner profile and joist front surface

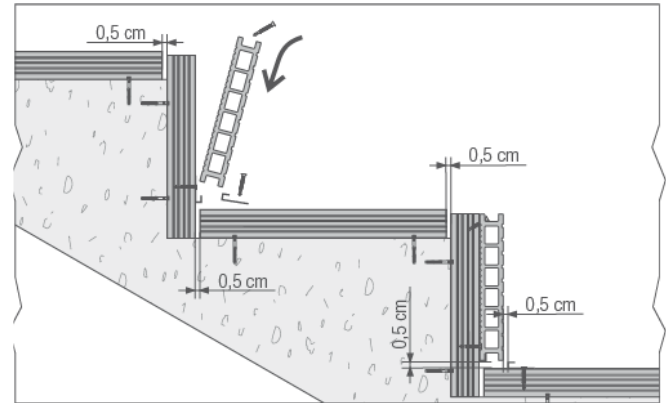
Construction of stairs

1) Fastening joists and start clips

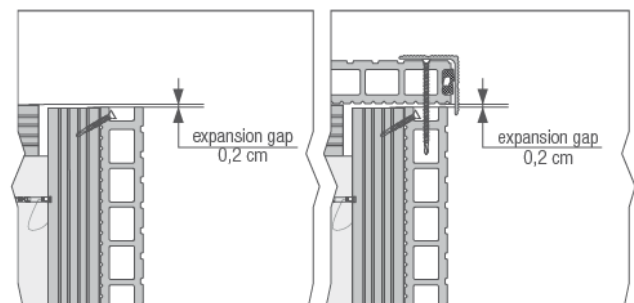
Arrange joists so that each board has at least three places of support. Fasten the joists to the concrete using dowels (joist has to be fastened to the substrate in a minimum of two places – as described above „LAYING JOISTS”). Spacing between the joists shall not be greater than 35 cm (heavy traffic). When joists are joined using a butt joint, you shall remember to leave a 0.5 cm expansion gap. Screw in the start clips to the joists arranged vertically, leaving an offset of 0.5 cm from the horizontal joists.



fastening joists and start clips to stairs



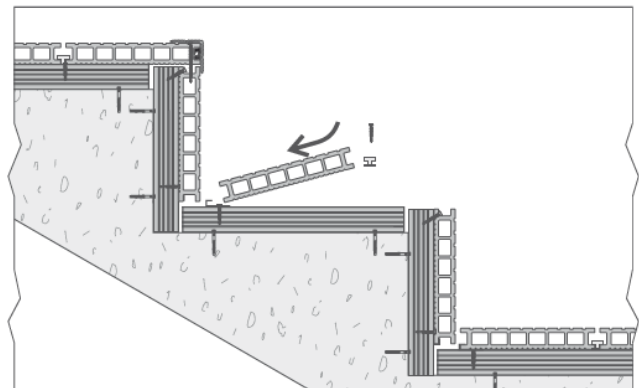
front expansion gap between joists, gap between clips and perpendicular surfaces



upper expansion gap between vertical board and joist 0.2 cm

3) Fixing horizontal boards

Place a board to have its lower tongue properly fixed by the start clips fastened to the horizontal joists. Push the board into its place and screw in the second edge of the board using a mounting clip



fixing horizontal boards

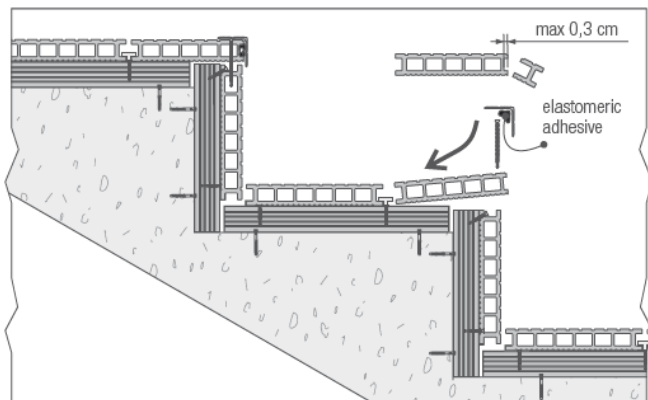
2) Fixing vertical boards

Put the lower part of the board into the start-up clips. Screw in the upper tongue of the board to the joist with self-drilling screws at an angle. Then, screw in the start clip to the horizontal joist providing an expansion gap of 0.5 cm from the board

4) Cutting horizontal boards

When a step is shorter, cut off the protruding edge of the board. Please note that the cut shall not be moved away from the board reinforcing member by more than 0.3 cm.

Next, place a board to have its lower tongue properly fixed by a mounting clip. After laying the board, screw in its other side with adhesive



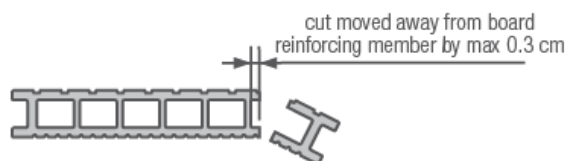
fixing horizontal boards cutting and finishing with corner profile

Notes:

- When installing the joists, remember to leave an expansion gap of 0.5 cm between their front and side surface.
- Internal spacing between the joists (from the side edges) shall not exceed 35 cm (heavy traffic).
- Boards must have at least three places

of support on the joists (on the sides and in the middle).

- Boards must have an expansion gap: for the vertical arrangement: 0.2cm from the top and 0.5 cm from the bottom, for the horizontal arrangement: 0.5 cm on each side.
- When longitudinally cutting boards, please note that the cut shall not be moved away from the board reinforcing member by more than 0.3cm.



Storage and maintenance

- During storage, Noble Collection composite profiles (boards, joists and profiles) shall be protected from the weather (roofing, shelters).
- To avoid deformation of their shape, they shall be stored lying flat and stable.
- Noble Collection composite profiles (boards, joists and profiles) do not require maintenance, waterproofing and painting. They are resistant to water, do not rot, do not swell. In addition, they are resistant to weather conditions, low temperatures and pests (e.g. bark beetles, termites).
- Cleaning the composite boards is very easy and does not require any special measures. Ordinary household measures are adequate. The best cleaning results are obtained with high pressure water (at maximum of 100 bar), cleaning in the direction of board grooves.
- For cleaning, do not use solvents and cleaning machines.
- Stains of grease or oil must be removed as soon as possible, not allowing them to dry, using a basic detergent.

• In case of particularly strong soiling, use copper wire brush or sandpaper of fine granulation and clean in the direction of the board grooves. These activities shall be done very carefully so as not to damage or change the groove dimensioning.

• To ensure adequate water drainage and air flow, you shall clean the gaps between boards not allowing them to clog.

• The composite wood material is very easy to maintain, but it is worth to make maintenance regularly.

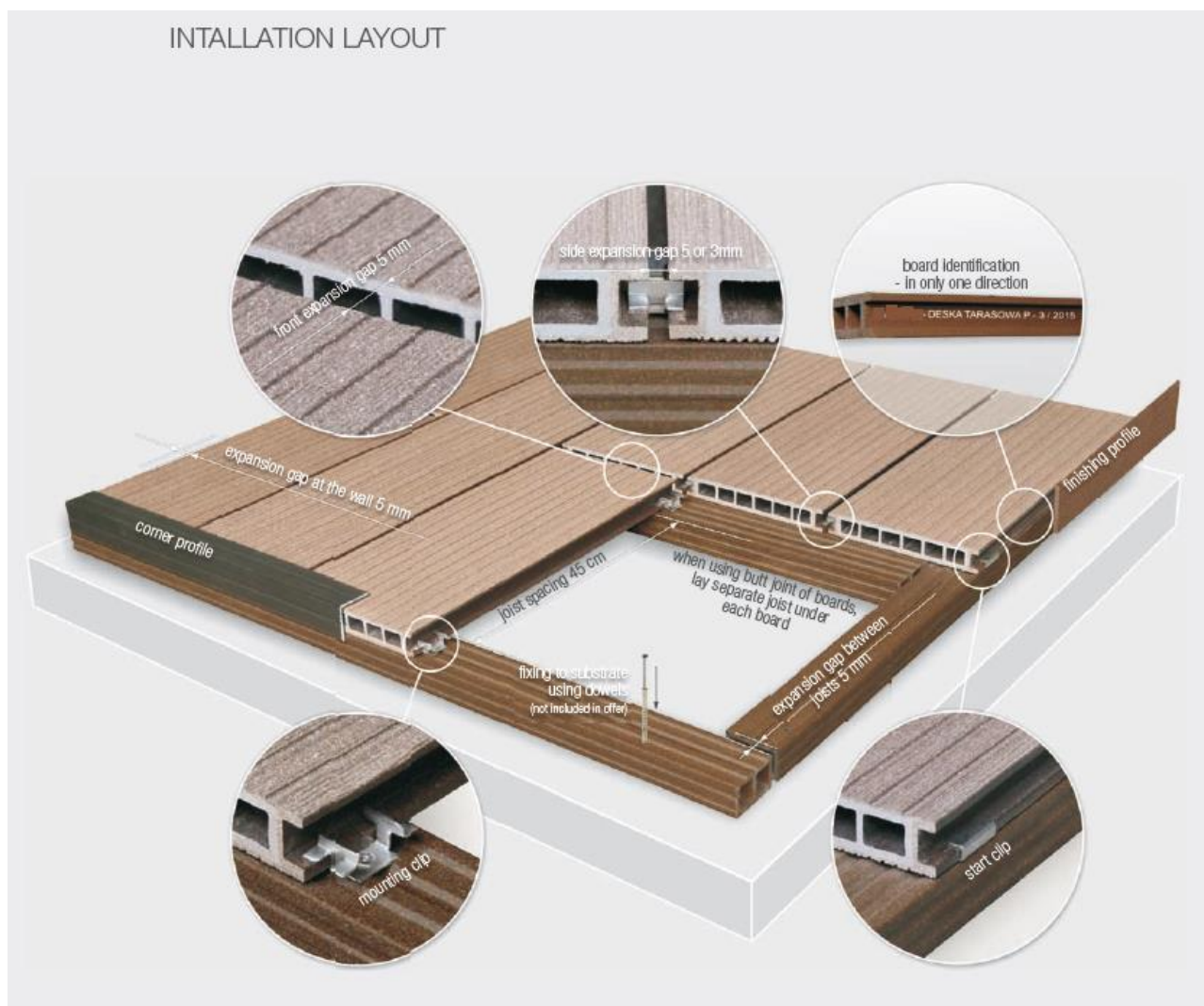
• Sweeping the terrace can prevent the formation of mould. You shall also remember to periodically sweep the area under flower pots and boxes to prevent absorbing moisture and getting dirty.

• A composite board when exposed to UV rays and water is subject to a natural process of changing its colour. This has no effect on its life and is not a product defect and does not constitute grounds for a complaint.

• We recommend sprinkling the surfaces of terrace boards that have become icing with expanded clay due to safety reasons.

• In the case of using other anti-icing agents for Prymus composite boards, each time the manufacturer of these boards should be consulted.

INSTALLATION LAYOUT



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