



Woodee Installation Instructions

Dear Customers,

We are sincerely pleased with your purchase and your interest in our decking and we believe that our products will fulfill your expectations.

To help you with the installation of your new decking and with its maintenance, we have prepared a guide, where you will find all the necessary information. Carefully read the information about the material, technical specifications of the purchased product, warranty terms and principles for the maintenance of decking. Pay attention to the information in this document, compliance with these instructions is important for the recognition of the warranty.

In case of any questions or concerns, please do not hesitate to contact us.

1 INSTRUCTIONS FOR INSTALLING DECK BOARDS

Before you start the installation of your new decking, carefully read all the information contained in the guide, which you are holding in your hands. Compliance with these instructions is important for the recognition of the warranty. The warranty does not apply to products that have not been installed in accordance with the installation instructions supplied with our material. All the cases that are not addressed in this installation instructions, always consult with the distributor of the product or its manufacturer. More about the warranty - see the section Warranty on the deck boards.

1.1 The tools and the material required for the installation

Use standard woodworking tools (drills, carbide-tipped saw, etc.) during the installation of the decking.

- **Tools:** tape measure, carpenter pencil, Chalk Snap-Lines, level, hand-held circular or jig saw, cordless drill with appropriate bit.
- **Material:** deck boards and joists, finishing boards, fixing clips (Startup, Basic or Double), stainless steel screws, plastic shims (if the levelling of the ground is necessary).
- **Material for 1m² of the Premium decking**
- When keeping 5 mm spacing between each board and 40 cm between the joists (from edge to edge of joist) the material consumption for 1m² of the decking is following:
 - 7 linear meters of boards 137 x 23 mm or 138 x 22 mm
 - 2,8 linear meters of joist 50x50 or 50x30 mm
 - 18 to 20 pieces of the stainless steel clips including the stainless steel screws, depending on the type of the decking

In case of bigger decking and when using only the Basic clips, the consumption is higher, than in case of using double clips.

1.2 Ground preparation

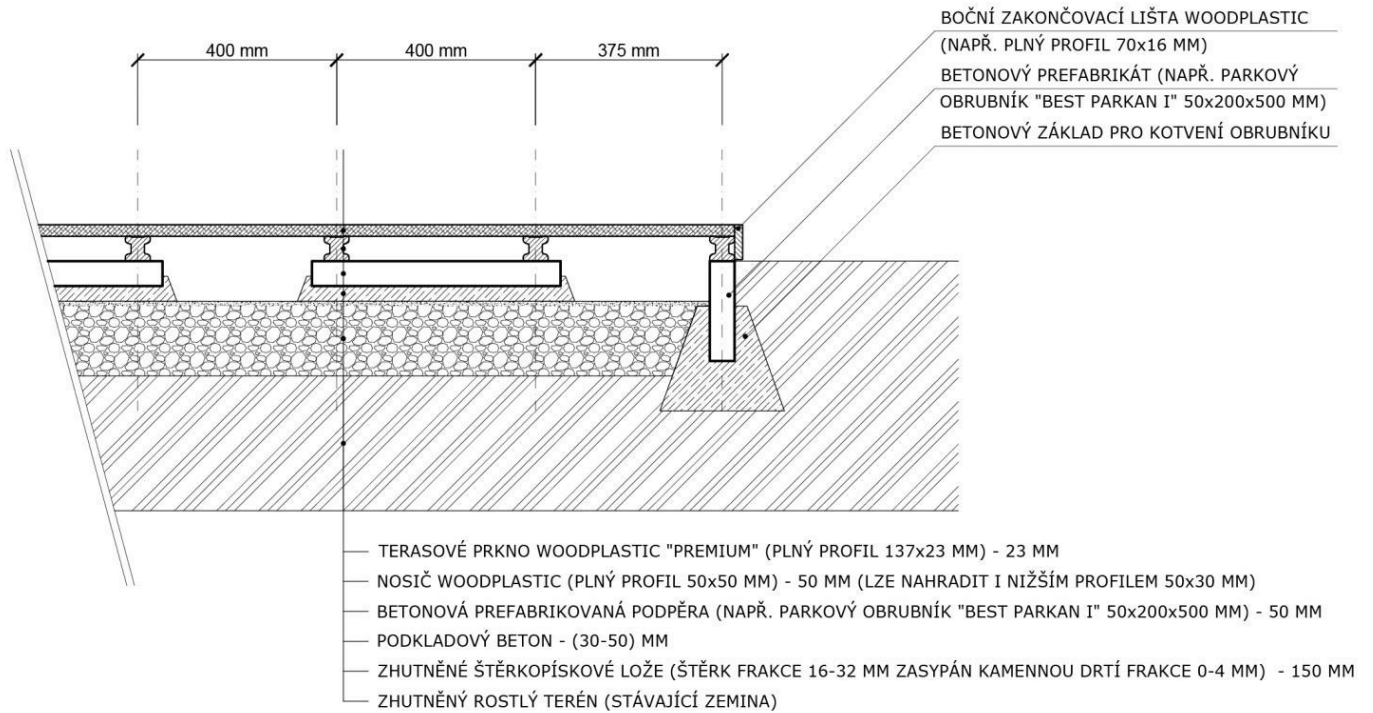
The basis for long-term stable and functional decking is properly selected and prepared ground surface. Selection and preparation of the ground surface should be always done individually based on the particular situation and preparedness in place of realization as to the parameters of the geological environment. In case of any doubt, consult your supplier.

Possible types of underlying surfaces include concrete slabs, compacted gravel bed (preferably with concrete supports - such as curbs that prevent joists sinking into the ground), hydro insulation (consider according to the type used), support structure (steel, galvanized steel, treated wooden joist or beams).

The ground under the decking must be well drained to allow drainage of rain water.

The ground may be in a plane in case of gravel bed underlying surface. In case of impermeable ground (e.g. concrete slab) the drainage can be achieved by proper surface sloping. Manufacturer recommends the underlying surface to be sloped in the direction from the house, or more precisely from the highest point which is connected to the decking. The decking can be installed on the thus prepared ground. The decking itself may be installed horizontally or in a slight slope.

Illustration 01 - The example of the installation of the "Premium" decking - Building section structures



1.3 joists installation

Before the installation of the deck boards, install the joists, the support construction for the deck boards. They provide the proper airflow in the decking.

The joists are laid on the ground without any fixing.

Axial distances between joists: The joists must be installed at the certain axial distance which depends on the angle between the joist and the deck board (chart 01):

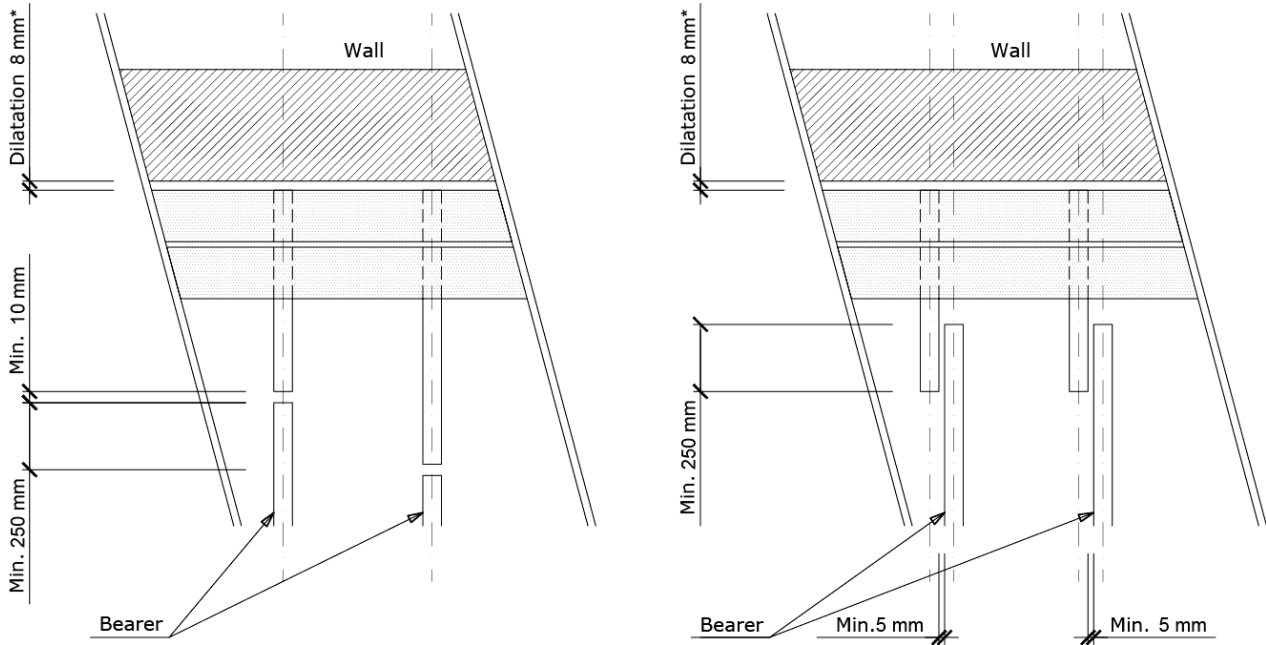
Chart 01 - Recommended spacing between joists

The angle between the deck board and the joist	90°	45°	30°
Minimum spacing between the joists (center to center)	40 cm	20 cm	10 cm

Thermal expansion gaps: When butting, a minimal gap in length between the ends of the joists is **10 mm**. The gap between the end of the joist and the wall must be **8 mm** to allow proper water drainage and temperature expansion (see Illustration 02).

The end part of each deck board must be supported by the joist and fastened to it in order to eliminate any stress, due to weight on the board. Boards' overlapping is not recommended. The maximum allowed overlap of the joist by the producer is 5 cm.

Illustration 02 - Spacing between joists for "Premium" deck boards - Examples of joists butting



Note:* - The installation under normal climatic conditions (air temperature from +10°C to +25°C)

To allow proper ventilation, the boards can't be installed directly on the ground. The boards have to be installed on the supplied standard joists (50x50 mm) or the joists with reduced profile (50x30 mm) – we don't recommend installing the reduced joists directly on the gravel bed without support concrete blocks. There is a possibility, that the joists could sink into the gravel over time and the minimal air gap of 30 mm wouldn't be in compliance with manufacturer's orders.

For installation on pedestals or joists made of solid wood the pressure treated or exotic wood must be used.

joists are not designed as a structural component, they must be laid in their entire length on solid and flat ground (such as concrete slabs, compacted gravel bed, etc.) or if they are touching the ground only partially (such as laid on the concrete block, steel grid, etc.), the maximum length of the unsupported part of the joist must be 30 cm.

In case of uneven ground surface the solid liners might be used to level the surface (e.g. liners made of PVC – don't use joists and boards for height adjustments). The spacing between the liners is 30 cm in the length of the joist (obey the rule, that the maximum length of the unsupported part of the joist is 30 cm)

It is not recommended to fasten the joists directly to the ground or to each other (unless it is required because of untypical conditions – stairs, atypical shape or size of the decking, etc.)

joists can't be glued together, they must not stay permanently in the water, they cannot be sealed in the concrete and they cannot be laid directly on the heat insulation.

joists should not be cut in width or height but only in length.

1.4 Spacing between the deck boards

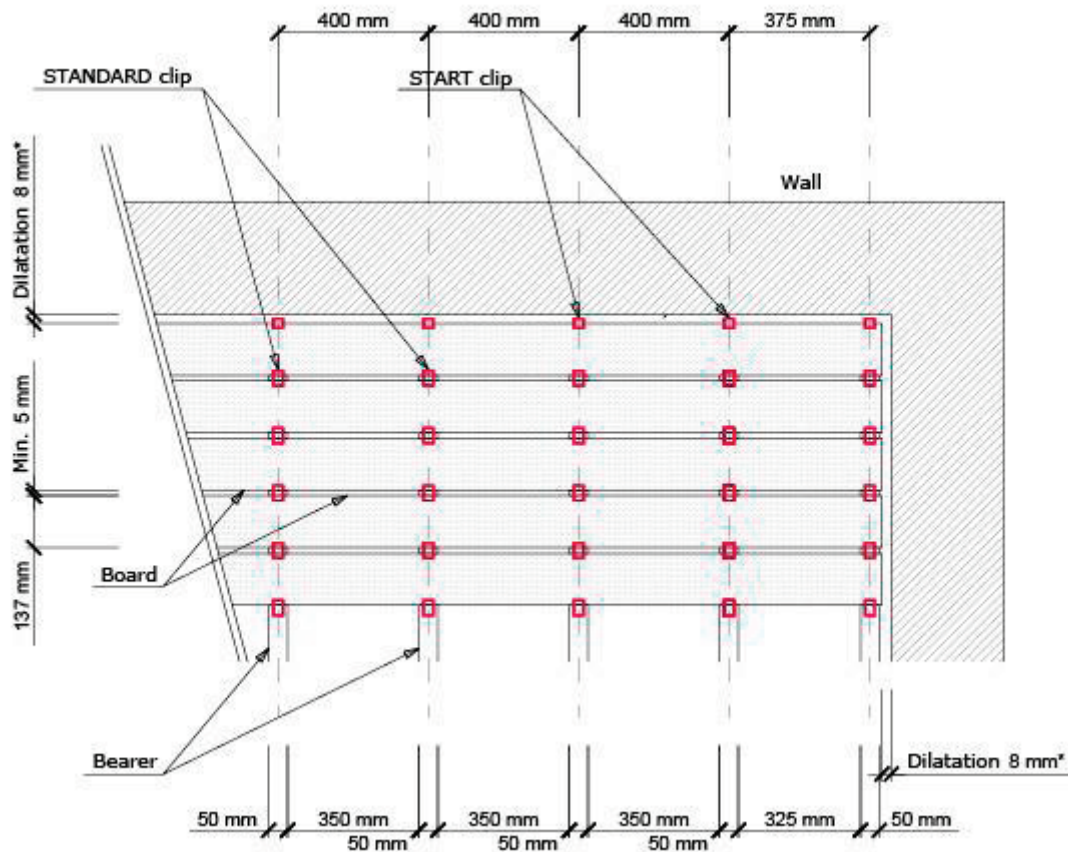
It is recommended to keep specified expansion gaps between the deck boards (see chart 02), because of expansion caused by sunshine and air temperature fluctuations.

Chart 02 - Recommended expansion gaps depending on the temperature fluctuation and weather

Air temperature	+10°C up to +25°C	above 25°C	under 10°C
Distance between the deck boards (in length)	5 mm	4 mm	6 mm
Gap between the ends of the boards (both in length and width) and the wall	8 mm	7 mm	9 mm

When installing the decking under normal climatic conditions (air temperature in the range of +10°C to +25°C) the gaps between the deck boards both in width and in length cannot be smaller than 5 mm. If the temperature is higher (air temperature above +25°C) and the sun shines on the decking, we would recommend to **reduce** the gap by 1 mm. When installing the decking under lower air temperature (air temperature under +10°C), we recommend to **extend** the gap by 1 mm. Furthermore the gap between the end of the deck board (in length/ in width) and the wall must be 8mm (see illustration 03).

Illustration 03 - deck board installation -"Premium" series

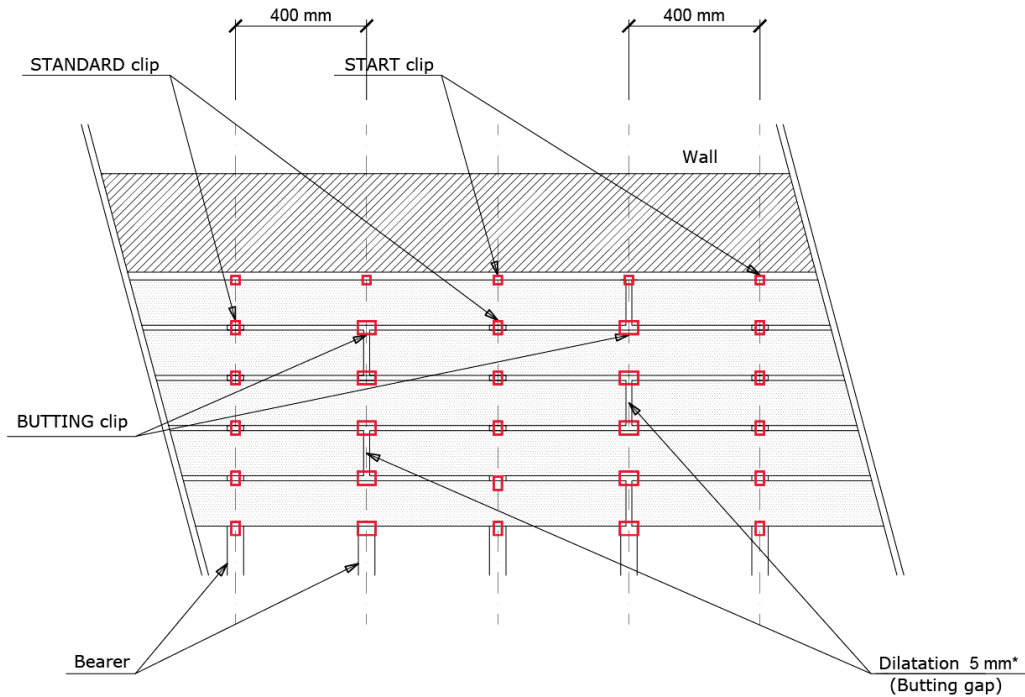


Note: * the installation under normal climatic conditions (air temperature from +10°C to +25°C)

The boards are connected to the joists in length so that two consecutive rows of the boards have a mutual alternation of the connection (expansion) gaps. We recommend that the gaps were staggered relative to the previous row of the boards by at least 40 cm.

Illustration 04 - Spacing between "Premium" deck boards - Butting boards with Double clip

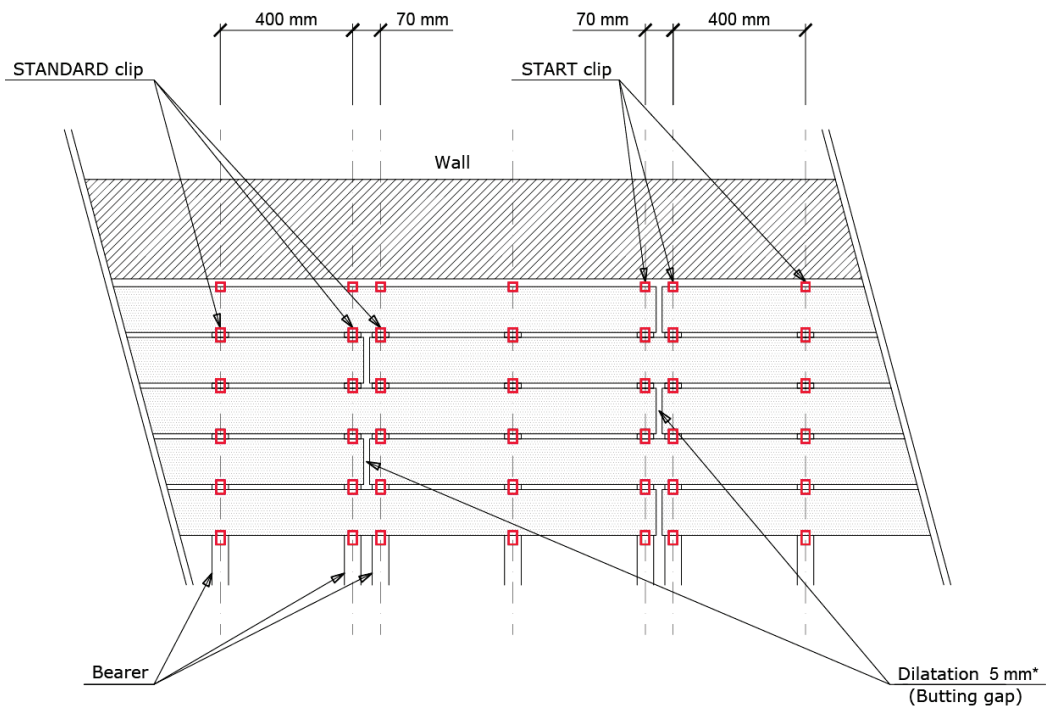
For fixing the connected deck boards to the joists in the case of one joist in place of the expansion gap, using the Double clip



Note: - * the installation under normal climatic conditions (air temperature from +10°C to +25°C)

Illustration 05 - Spacing between "Premium" deck boards - Butting boards with BASIC clip

For fixing the connected deck boards to the joists in the case of using two joists in the place of the expansion gap using two Basic clips. (In case of using Basic clips we have to double the quantity of the joists along the line of the expansion gaps and therefore the clips)



Note: - * the installation under normal climatic conditions (air temperature from +10°C to +25°C)

We recommend using the 5mm liners to check the **minimum 5 mm spacing** between the boards of **5 mm** (both in length and in width)

1.5 Deck board installation and fastening

“Premium” deck boards have two sides – the walkable side and the bottom side, they are not designed for two-sided use. The walkable side is adjusted to provide an unslippery surface. The bottom side cannot be used as a walkable surface. Warning: The groves for fastening the clips are on the bottom side of the board and therefore the boards cannot be reversed.

Hidden fastening of the boards using the stainless steel clips

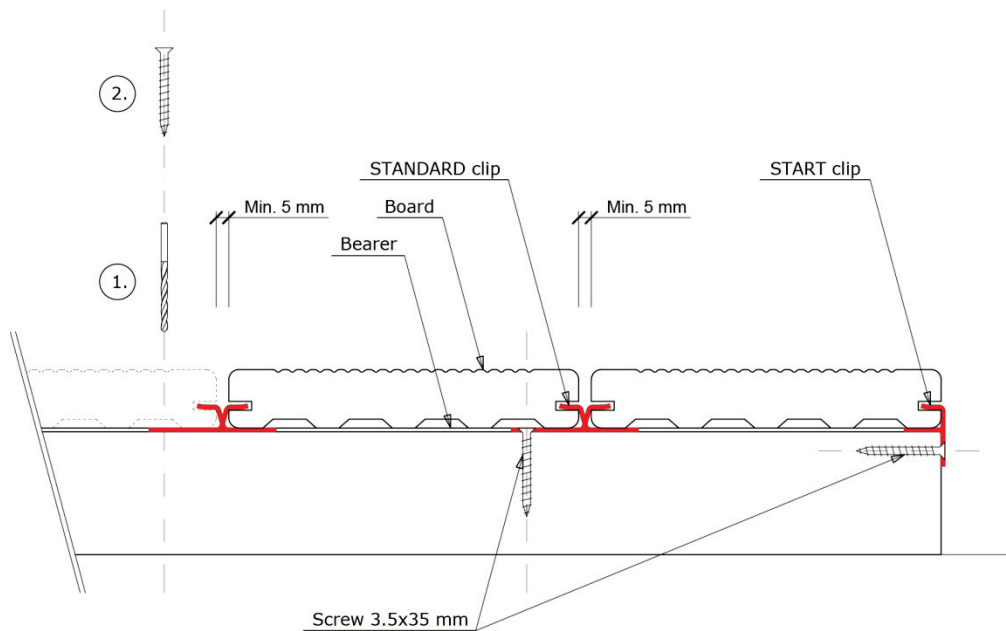
- For simplicity and speed the installation we recommend for fastening the boards is using the hidden stainless steel clips.
- These clips are supplied with stainless steel screws in three types (Basic clip, Double clip and Startup clip). The clips are accurately measured to define the spacing between the boards in width (see illustration 06) – do not adjust the clips to reduce this spacing. These clips are designed specifically for our deck boards. Do not use other clips from the any other suppliers.
- For the joists 50x50 mm, the clips are supplied with the screws 3,5 x 35.
- For the low profile joists 50x30 mm, the clips are supplied with the shorter screws 3,5 x 35, in order not to cut through the joist.

The STARTUP clip is the initial and at the same time the ending clip, it is used to fasten the first and the last deck board. If it is necessary because of construction conditions, the first or the last deck boards can be fastened to the joist by using the screw with pre-drilled hole.

The Basic clip is the basic clip for fastening the deck boards inside the layout of the decking. When the deck board is positioned and stabilized, slide the Basic clip into the groove in the board. Once the clip is at the specified position (it is possible to hit the clip slightly with the hammer, to help it slide perfectly into the groove), fix the clip with the screw into the joist. Then slide the next row of the boards into the already fixed clips and then control the space between joists (using the 5 mm liner).

The double clip is the clip used for fastening two deck boards with the gap between them, allowing to set up the 5 mm expansion gap* between the boards in the length on one joist. It is installed the same way as the Basic clip.

Illustration 06 - Fastening "Premium" deck boards by using stainless steel hidden clips



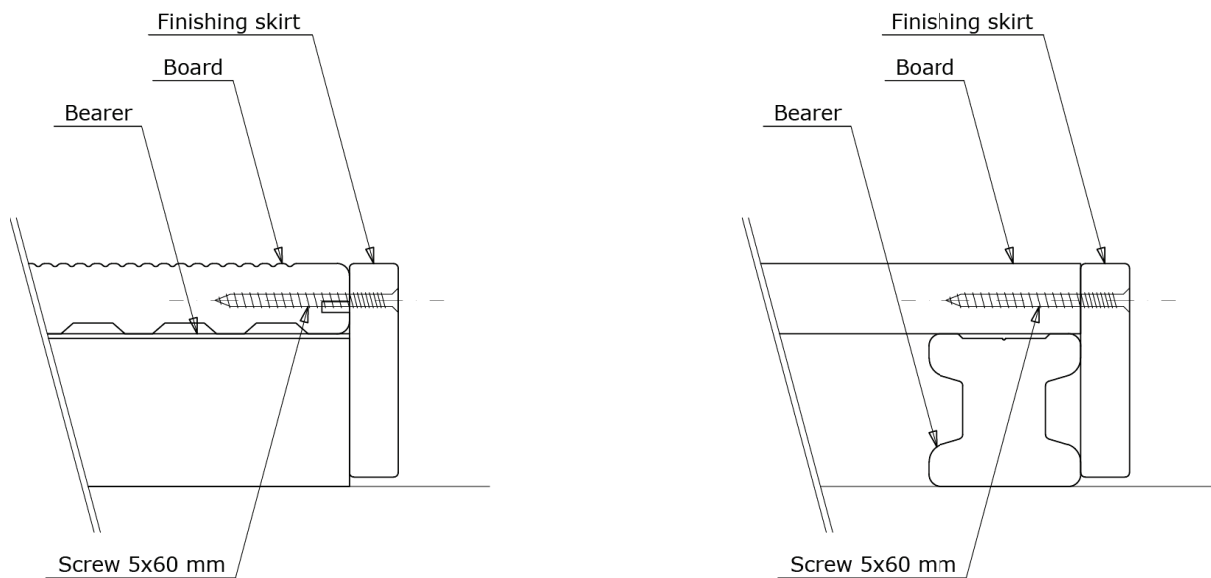
1.6 Finishing the installation

Before finishing the decking installation, after all the deck boards are fastened, draw a line (e.g. using the pencil, chalk) on the edges of the boards, or use the guide rail and cut the overhanging edges of the boards with the circular saw (the tolerance in the length of the manufactured boards is +/- 10 mm).

The last modification is finishing the end of the decking with the finishing boards (small, medium and large) which are fastened to the deck boards with the stainless steel screw 5x60 mm (see Illustration 08). **Pre-drilled hole is required for entire length of the screw, that is embedded in the finishing board (when using the screw 5x60 mm pre-drill the hole with the 3,5 mm drill).** The screw must be applied at

least every 40 cm, but depending on the load of the finishing board the distance should be decreased. For the accurate attachment of the finishing board to the end of the deck board we recommend (only in the case when the finishing board is attached to the joist with the Startup clip – see illustration 07) to cut out a small piece of the finishing board to embed into the Startup clip.

Illustration 07 - Fastening "Premium" side finishing skirt



1.7 Final summary of the main guidelines and rules for the installation

WARRANTY ON THE DECK BOARDS

- Store the deck boards before the installation on the flat solid and dry ground
- Be careful during the manipulation of the deck board due to their larger mass than wood
- Deck boards are not designed as a structural component!
- Due to the extreme changes of the weather it is necessary to control the technical condition of your decking and clean it on a regular basis.
- In case of installation of the cover/lid use the construction material such as steel or wood for making the supporting frame, don't use joists or deck boards.
- Do not attach mail boxes, lamps, pool roofing etc. directly on the deck boards. When installing the pool roofing (or other heavy objects), the roofing system cannot be anchored only to the deck boards. It is important to be properly anchored through the boards into a solid surface to prevent the rupture caused by the pressure, wind etc.
- We recommend using the 5 mm liners, to ensure the **minimum 5 mm** gap between boards both in length and in width. Don't forget to keep the **minimum 5 mm** expansion gap around the obstacles in the decking (e.g. railing, posts of the roof etc.). Keep the gap between the end of the deck board and the wall at least is **8 mm** (both in length and width).
- The minimum gap between the ends of the joists in length should be **10 mm**. The gap between the end of the joist and the wall should be **8 mm**.
- Gluing of the deck boards and joists is restricted. Do not embed the joists in the concrete.
- We recommend using the stainless steel screws, tighten them carefully – set the proper torque on the screw driver.
- It is necessary to pre-drill holes for the screws when fastening the Startup clips. It is recommended in case of the Basic clip and the Double clip.
- It is necessary to use the shorter screw (3,5 x 25) for fastening the clips when using the low profile joists 50x30. For joists 50x50 use standard screws (3,5 x 35).
- Do not screw closer than 20 mm from the edge of the board.
- Do not insert anything into the grooves of the boards in order to connect them together.

2 MAINTENANCE OF THE DECK BOARDS “PREMIUM”

2.1 Maintenance right after the installation

Right after the installation rinse the decking with the stream of water, you can use high pressure cleaner (max. 80 bars, spray from a constant distance of 40 cm and do not use rotating nozzle).

2.2 Color change of the deck boards “Premium”

One of the main advantages of the composite of wood and polymer[®] is the stability of color. However, during the first few weeks after the installation the color change proceeds. This effect is caused by the presence of wood flour in the composite, which under the influence of UV rays during the first weeks after the installation of the boards gets a yellowish shade. After about 8-12 weeks from installation of the decking this yellowish shade gradually disappears and the color of the boards returns very close to the original. In the case when several days elapsed between placing the first and last boards it is normal, if the color difference between them occurs. This difference disappears naturally evenly by UV rays and rain.

100 % of used wood flour comes from European PEFC certified forests, which ensures a consistent level of quality. However, there are slight differences between the supplies of wood that may cause slight discoloration of the boards. Color and level of brushing of the boards is not always the same. Therefore, we recommend to our customers to purchase the required amount at once, to reduce the risk that they will get boards from different production batches.

2.3 Maintenance of the deck boards “Premium”

Requires a minimum of maintenance. We recommend you to wash the decking once a year (in spring) with soapy water. Use a hard brush (brush the boards gently in the longitudinal direction and rinse them with water) followed by rinsing the entire surface of the decking with a stream of clean water (you can also use the pressure washer). Keep the gaps between the boards clean, to ensure proper water drainage of the decking. You can use just clean water for an ordinary cleaning of the decking during the year – and if necessary, use a cleaner.

- **How to remove spots?**

Outdoor air pollution can cause some spots on the surface of the decking (e.g. ash from the air, fungi, etc.). If the spots show up, clean the surface with a bleach-containing cleaner (e.g. chlorine) and rinse it properly with water. **Do not use any solvent-based products!**

- **How to remove resistant spots and scratches?**

For resistant spots (e.g. red wine, fruit juices, etc.) and scratches use a brass brush to brush the decking surface (brush gently, in the longitudinal direction) – after brushing the decking the spots with different color may arise, but they will disappear over the time thanks to the UV rays.

To remove the resistant oil spots (e.g. sunbathe lotions, oil, fat, etc.) use a degreaser immediately – if necessary, use a medium-grained sandpaper (brush smoothly in the longitudinal direction of the boards). The spots will disappear in few weeks again thanks to the rain and the UV rays.

- **How to remove the wet spots and accelerate their absorption?**

Evaporation of the water on the surface of the boards can create wet spots, they appear mainly in the exposed locations with different humidity (around the garden furniture, under the gutters, on partially covered surfaces, etc.) These spots gradually disappear over time, thanks to UV rays and rain. This process can be accelerated by rinsing the decking with water together with brushing these spots (brush always in the longitudinal direction of the boards).

- **How to eliminate the effect of water-dust spots?**

On the partially covered decking in the transition area between the roof and the uncovered surface the water spots may form. Rain water flows over the surface to the roof and then dries. Particles of the dust get briefly wet, then dry and stay in the area. On an unprotected surface, which is constantly exposed to sun and rain, this effect is less evident. The quality of the boards is not affected, and therefore there is no reason for complaints. Water spots are usually removed with clean water and ordinary detergents. This effect diminishes over time, it cannot however be avoided. The effect of water spots can be significantly reduced if the decking is immediately after the installation washed with high pressure cleaner (max. 80 bars, spray from a constant distance of 40 cm and do not use rotating nozzle). This treatment rinse dust out of the boards.

2.4 Warning – we don't recommend

- **products are designed for outdoor use**, are suitable for interior - we do not recommend using WPC products indoors or in an enclosed inner space where they won't be exposed to UV rays and rain, because easier maintenance is conditioned by these factors.
- **Do not use aggressive solvents and thinner to clean decking.**
- **Do not paint products with stains, paint, wax, oil or varnish.**
- **products are not a structural material; do not use them as a support structure.**
- **Do not use where the direct contact with flames or embers is possible**- because of possible damage to the boards by embers (e.g. from fireplace). When grilling on the WPC decking it is recommended to use under the grill at least flame resistant underlay material, partly due to embers, but also, to prevent grease stains on the decking and additional cleaning.

3 WARRANTY ON THE “PREMIUM“ DECK BOARDS

25 year warranty applies to all products against wood-destroying fungi, rot and insects under normal conditions. This guarantee means that we will replace damaged products. All work and related costs are excluded from the guarantee. For all other cases, the standard warranty of 60 months applies.

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.

This warranty does not apply to

- **Color fastness** – The products have UV protection. However, it is a product made from wood (boards contain 60 % wood fiber) and over time due to exposure to UV radiation and humidity the slight change in color and shade may occur (for this reason we recommend that the boards are before laying mixed up) . There may be slight color difference especially in the first three months, depending on the intensity of UV rays. These color variations are not a defect and does not constitute a reason for complaint.
- **Water dust spots**
- **Normal wear use**
- **Failure to follow installation instructions** – warranty does not apply to products that have not been installed in accordance with the installation instructions supplied with our material. Or products that are used for purposes other than those specified by the manufacturer.

4 MATERIAL PROPERTY DATA

Chart 01

Property	Test Method	Values
Flexural strength	ČSN EN 310, conditions according to P CEN/TS 15534-1, Paragraphs 5, 7.3.2.	21,7 MPa
Shrinkage (100°C, 60 min, longitudinal direction)	CSN EN 479	0,02%
Impact strength (resistance to impact by falling mass in cold)	ČSN EN 477	0% damaged
Slipperiness - coefficients of friction	ČSN 74 4507	Static on dry surface: 0,50
		Kinetic on dry surface: 0,62
		Static on wet surface :0,61
		Kinetic on wet surface: 0,51
Swelling in water (28 days, 20 °C)	CSN EN 317, conditions according to CSN P CEN/TS 15534-1, Paragraphs 5, 8.3	1,00%
Swelling up after moisture resistance test by cycling	ČSN EN 321	1,10%
Flexural strength after moisture resistance test by cycling	CSN EN 321, conditions according to CSN P CEN/TS 15534-1, Paragraphs 8.5.1, ČSN EN 310	20,3 MPa
Coefficient of Thermal Linear Expansion	ASTM D696	2,88*10 ⁻² mm/m/°C
Reaction to fire	CSN EN 11925-2, CSN EN ISO 9239-1 CSN EN 13501-1+A1	D _{fi} -s1

Chart 02

Density	1210 kg/m ³
Surface Hardness (Brinell)	very resistant material
Termite resistance	No attack in the initial state and also over time
Resistance to fungus N34/EN318	Very durable material, the aging tests do not affect the durability

Chart 03 - Product dimensional tolerances

Dimension	Tolerance
Length	+/- 10mm
Width	+/- 2mm
Thickness	+/- 1mm

Insight into the original test reports is available upon the request.