

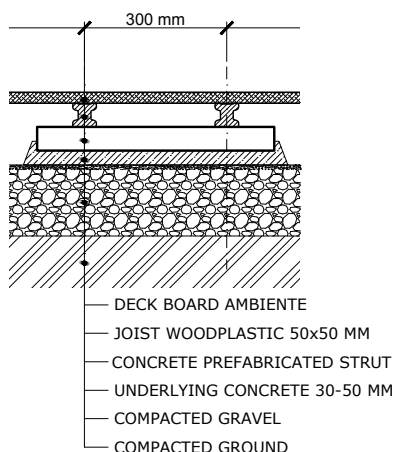
DECK BOARDS AMBIENTE INSTALLATION MANUAL

Important information about the product

- WPC products are not a support construction material and cannot be used for the construction for balconies, elevated decking, covers, etc. For these cases, it is necessary to make the support construction for the WPC decking from different materials.
- Before installation the Woodplastic® deck boards should be stored on a flat and ventilated surface with the unbrushed side up to be covered from sunlight in order to prevent the uneven color change.
- Do not paint Woodplastic® products with stains, paint, wax, oil or varnish. Avoid using solvents and thinners.
- Woodplastic® products are designed for outdoor use.
- Due to the sunlight and temperature changes the WPC products are expanding and contracting. Therefore keep the required expansion gaps.
- Use standard woodworking tools (drills, saws, sanders, tape measure, level, cordless screwdriver with bits, etc.) during the installation of the decking.

1. 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.
- Recommended types of underlying surface: concrete slab, compacted gravel bed (preferably with concrete supports), hydro insulation (consult with supplier) and support structure.
- The ground under the decking must be well drained to allow drainage of rain water. WPC joist and deck boards cannot stay permanently in the water.
- The underlying surface has to be stable enough to avoid any ground sinking.
- The minimal gap between the bottom of the deck board has to be 30 mm in the entire area of the decking to provide proper air ventilation.



2. WoodPlastic® joists installation

- WoodPlastic® joists are laid on the prepared surface with the groove up. Do not anchor them to the surface and never seal them to the concrete.
- The joists must be installed at maximal axial distance 30 cm (see chart 1).
- Each deck board has to be supported with at least 3 joists. Even if the axial distance between the joist is met.
- When butting minimal gap in length between the ends of the joists is 10 mm. The gap between the end of the joist and the wall or other obstacle must be a minimum 10 mm.
- For evening the differences of elevation under the joists use rubber shims or pedestals.
- The maximum length of the unsupported part of the joist 50x50 must be 30 cm. The maximum allowed overlap of the joist is 5 cm.
- The WoodPlastic® joists with reduced profile 50x30 mm must be supported the entire length. The maximal unsupported part can be 15 cm.
- When using the Ambiente ABS or INOX fiving clips, it is necessary to turn the joists upside down, with the groove facing down.

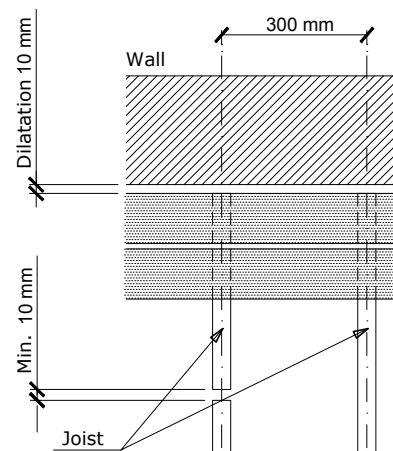


Chart 1 - Recommended spacing between joists

| | | | |
|---|-------|-------|------|
| The angle between the deck board and the joist | 90° | 45° | 30° |
| Minimum spacing between the joists (center to center) | 30 cm | 15 cm | 5 cm |

3. Deck boards installation

- It is recommended to control / observe the direction of laying the boards, which are brushed in one direction.
- Each crossing of the board and the joist has to be fixed with clips or screws.
- The overlap of the boards is not recommended (max. 50 mm).
- Do not adjust the stainless steel clips.
- Do not use the clips from the other suppliers.

- **START clip** is intended to fix the outer boards (the first or the last board). If it is not possible to fix the outer boards using the START clip, deck board can be fixed with the screw.
- **BASIC clip** (also Ambiente ABS or INOX fixing clip) is intended to fix the deck boards inside the layout of the decking. Slide the BASIC clip into the groove in the board. Fix the clip with the screw into the joist. It is possible to hit the clip slightly with the rubber hammer, to help it slide perfectly into the groove. Then slide the next row of the boards into the already fixed clips and then control the space between the joists (using the 5 mm liner).
- The **DOUBLE CLIP** is the clip used for fastening two deck boards with the gap between them to one joist. The installation is same as the BASIC clip. be 15 cm.

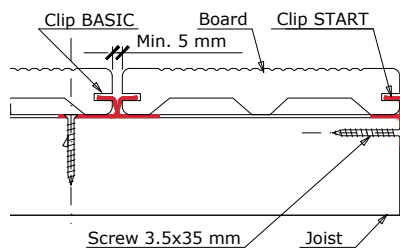


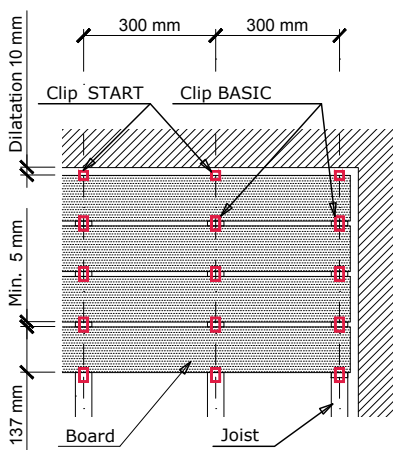
Chart 1 - Recommended expansion gaps (for the 4m boards) depending on the temperature fluctuation and weather

| Air temperature | Under +10°C | +10°C up to +25°C | Above +25°C in the shade |
|--|-------------|-------------------|--------------------------|
| Distance between the deck boards (in length) | 5 mm | 5 mm | 4 mm |
| Gap between the ends of the boards (both in length and width) and the wall | 12 mm | 10 mm | 10 mm |

- When installing the CUSTOM LENGTHS deck boards more than 4m long add 1-2 mm to the required expansion gap for 1 m of the extra length of the board.

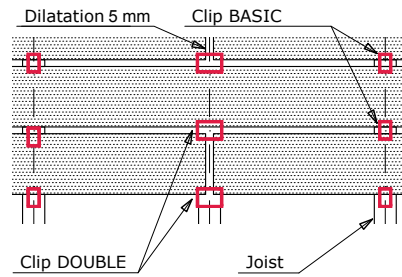
- Always predrill the hole for the screw in the case of the START clip. For the clip BASIC and DOUBLE, we highly recommend the predrilling. Use the 2 mm drill for the screws 3,5 mm.
- Tighten the stainless steel screws carefully – do not forget to set the proper torque.
- For the joists 50x50 mm, fix the clips with the screws 3,5 x 35 mm.
- For the low profile joists 50x30 mm, fix the clips with the shorter screws 3,5 x 35 mm, not to cut through the joist.

Deck board installation

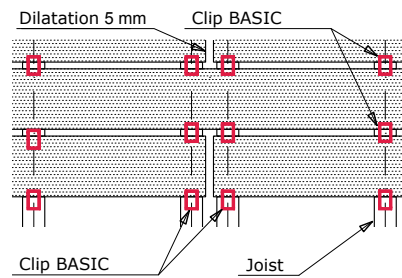


- For connecting deck boards use either DOUBLE clip or 2 BASIC clips and 2 parallel joists.
- Keep the expansion gap between 2 following boards (see the chart 2).

Butting deck boards with DOUBLE clip



Butting deck boards with BASIC clip



4. Fixing the deck boards using the screws

- The recommended screw is VBA 5x50 mm.
- The hole for the screw is always necessary to predrill (for example when using the screw 5x50 mm with the drill 3,5 mm).
- Do not screw closer than 20 mm from the edge of the board.
- For each crossing of the board and the joist use 2 screws.
- It is highly recommend countersinking the heads of the screws.

5. Finishing the installation

- We recommend cutting the overlapping boards after the completion of the installation.
- Fasten the finishing boards on the sides of the decking.
 - o Use stainless steel screws for example 4x60 mm.
 - o Fasten the screws to the middle of the deck board (about 1 cm from the top edge).
 - o It is required to predrill a hole for the entire length of the screw (when using the screw 4x60 mm pre-drill the hole with the 3 mm drill).
 - o The screws should be applied every 40 cm, but depending on the load on the finishing board, decrease the distance between them.
 - o For the accurate attachment of the finishing board cut out a small piece of the finishing board to embed into the START clip.
 - o If necessary, finishing boards can be bended and shaped after warming.

DECK BOARDS AMBIENTE

MAINTENANCE, PROPERTIES, WARRANTY

Maintenance right after the installation

- Right after the installation rinse the decking with fresh water, you can use the high pressure cleaner (max. 80 bars, spray from a constant distance of 40 cm and do not use rotating nozzle). It is important get all dust from the decking to significantly reduce effect of water-dust spots (see Properties of the Material).

Preventive precautions

- We recommend washing the decking once a year (in spring) with soapy water. Use a hard brush (brush the boards gently in the longitudinal direction) 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. Remove the dust, leaves, needles and other debris.
- Avoid the formation of dirt, scratches and stains. Grease and oil stains must be removed as soon as possible.
- Avoid contact of the decking with direct fire and protect it from embers. For location of a fireplace or grill on the decking, we recommend installing a non-flammable surface.

Removing the dirt and stains

- Avoid using aggressive cleaners, solvents and thinners. Do not paint Woodplastic® products with stains, paint, wax, oil or varnish.

| Type of dirt | The cause and reason | The method of removal |
|-------------------|--|--|
| Normal dirt | Dust and ash in the air, mold, pollen, etc. | Use common household cleaners (or special product for WPC decking) with scrub brush or pressure washer and after rinse. |
| Color stains | Red wine, concentrated fruit juices, soft drinks, etc. | Immediately rinse the surface of the boards with fresh water, then brush lengthwise and rinse again. |
| Greasy spots | Oils, fats, sunscreen products, grilled foods, etc. | Immediately rinse with clean water, then use a degreaser (soap or a special product for WPC decking) and scrub brush or pressure wash the stain and then rinse with clean water. The remainder of the stain (if some exist) will disappear within a few weeks when exposed to UV light and rain. |
| Water-dust spots | Slow evaporating water keeps dust or pollen on the surface of the decking mostly in the partially sheltered areas (like around and under patio furniture, planters, eaves, etc.) | Rinse with clean water then use common household cleaners. Scrub and brush lengthwise and rinse again. These areas need to be cleaned on a regular basis to avoid staining. |
| Surface scratches | Movement of the furniture, rocks, etc. | Clean the surface with scrub brush lengthwise and rinse. If the scratches are visible you can use very light grade sandpaper sponge to gently remove the scratches lengthwise and rinse. |
| Burned areas | Embers from the grill | Clean the surface with scrub brush lengthwise and rinse. |

Properties of the Material

- Maturation of the wood component – during the first weeks or months after installation, depending on the intensity of sunlight and the season, there is a maturation of color (a yellow tinge). It is a maturation of the wood components in WPC (wood-plastic composite material is a blend of 60% wood and 40% of HDPE). This process over time, with exposure to sunlight and rain will return to the original shade.
- Water dust spots - are caused by slow evaporation of the water and dust or pollen stays on the surface of the decking mostly in the partially sheltered areas (like around and under patio furniture, planters, eaves, etc.). These areas need to be cleaned on a regular basis to avoid staining.
- Under some specific weather conditions the Woodplastic® decking may accumulate static electricity. This is a common physical phenomenon, and therefore there is no reason for concern.

| 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) | ČSN 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) | ČSN EN 317, conditions according to ČSN 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 | ČSN EN 321, conditions according to ČSN 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 ⁻⁵ mm/m/°C |
| Reaction to fire for decking profiles | ČSN EN 11925-2, ČSN EN ISO 9239-1 ČSN EN 13501-1+A1 | Dfl - s1 |

| PROPERTY | VALUES |
|--------------------------------------|---|
| Density | 1210 kg/m ³ |
| Surface Hardness (Janka test method) | very hard wood |
| 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 |

Warranty on the deck boards

A 25 year warranty applies to all WoodPlastic® products against: wood-destroying fungi, rot and insects under normal conditions. For all other cases, the standard warranty of 60 months applies for PREMIUM and MAX deck boards, warranty of 24 month applies for AMBIENTE deck boards.

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.

This warranty does not apply to:

- **Color fastness** - The Woodplastic® products have UV protection. However, it is a wood product and, therefore, may over time experience color changes as a result of exposure to sunlight and humidity.
- **Maturation of the wood component** – during the first weeks or months after installation, depending on the intensity of sunlight and the season, there is a maturation of color (a yellow tinge). It is a maturation of the wood components in WPC. This process over time, with exposure to sunlight and rain will return to the original shade. These color variations are not a defect and do not constitute a reason for reclamation.
- **Water dust spots** – It is a common phenomenon, and therefore does not compromise the quality of the product.
- **Normal wear and tear**
- **Failure to follow installation instructions** – the warranty does not apply to WoodPlastic® 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.
- Problems caused due to poor preparedness of the foundation and lack of drainage etc.

Manufacturer

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