

# **WPC EXOTICS – Information and installation**

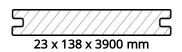
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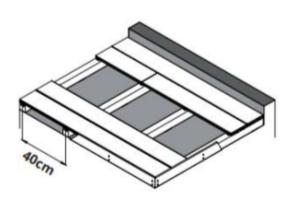














#### Facts:

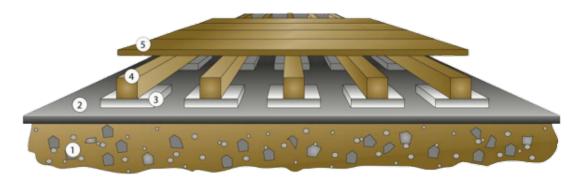
- WPC EXOTICS is not a normal WPC, but is coated with a special, wood-free protective layer so that dirt, grime and UV sunlight have no negative impact on your decking. We are talking about WPC 2.0, with reduced maintenance and cleaning requirements. PERFECT!
- The WPC EXOTICS is supplied in 23 mm thickness, 138 mm width and 390 cm length as a solid plank. All planks are 2-coloured: All planks have a reddish side. 50% of the planks have a yellowish reverse side and 50% have a brownish reverse side. Both sides are brushed and have a very wood-like feel.
- **Multicolor**: WPC EXOTICS is supplied as a multicolour plank, which underlines its naturalness through the vibrant colour variation. The three basic colours within the planks provide many design options:
  - ✓ If you want a particularly vibrant surface: Mix all 3 colour tones as 'wildly mixed' as possible during installation. Your surface will look like real lpé tropical wood!
  - ✓ If you want a more homogeneous look: always keep the reddish side to the top. The elegance of mahogany works in your garden.
  - ✓ You want a great Bangkirai look: Lay the yellowish and brownish sides well mixed. Your guests will be delighted.
  - ✓ Always: Always lay in a bonded pattern for a more natural look. Avoiding continuous head joints also makes the overall surface much more stable.
  - ✓ Do not forget to pre-sort by colour variant BEFORE capping!
    Please note that the surface may become scratched during storage and assembly (see care).
- **Ventilation**: All WPC products dissipate little heat. Accordingly, a lack of air circulation leads to high temperature differences between the top and underside of the boards. This leads to a shortened service life and, in the worst case, to uncontrolled deformation of the boards. For this reason, effective ventilation under the plank surface is the MOST IMPORTANT thing to consider when planning.
- **Substructure spacing** (centre-to-centre distance = centre-to-centre of the substructure joists): 40 cm for private use, 30 cm for public projects. Compliance with these maximum values is important and necessary.
- Slope in the direction of the planks: recommendation 2% = 2 cm p. metre due to simplified cleaning, but not technically necessary. Laying without a gradient is permitted, but leads to increased cleaning effort.
- Substructure: 10 cm installation height ecommended, 3.2 cm also permitted with optimum ventilation (24 mm aluminium + 8 mm rubber pad under substructure). We recommend hardwood or aluminium that corresponds to the life expectancy of the Exotics decking, e.g. hardwood substructure 44x68 mm or aluminium 40x60 mm and 30x64 mm (2-3 mm wall thickness). WPC-UK not permitted!
- **Joint spacing and linear expansion:** WPC EXOTICS is one of the few WPC products that absorbs very little moisture. However, there is a **change in length** with temperature adjustments, so the expected differences between **installation and utilisation temperature** must be taken into account for head joints and edge distances.
- WPC EXOTICS is not a grown wood, but a manufactured material. Accordingly, there is a lack of experience
  over decades, which means that, unlike grown wood such as larch or oak, no approval can be given for
  load-bearing/static use. Without an additional load-bearing layer, WPC EXOTICS is therefore not suitable
  for cantilever balconies, for example.
- Electrostatic charging: All electrically non-conductive, low-maintenance surfaces can be affected by this
  phenomenon, which is influenced by the circumstances on site: Particularly reduced humidity (indoor
  exhibitions / conservatories) and surfaces exposed to high wind speeds (lack of edging / fencing / new-build
  areas) can lead to a noticeable electrostatic discharge on contact with metal surfaces in sensitive people.
  This effect disappears over time, as even slight surface soiling leads to increased conductivity. For extreme
  situations, please contact us via your dealer (suitable care product available).
   Important: Neighbouring metal surfaces, e.g. metal railings, must not be earthed under any circumstances
  - **Important:** Neighbouring metal surfaces, e.g. metal railings, must not be earthed under any circumstances (not even 'unintentionally' through contact screw to concrete reinforcement). This increases the potential difference between the plank and the railing and considerably intensifies the effect.
- Weight in kg/running metre: 3.70 kg for 23x138 mm solid.
- Composition: approx. 40% plastic (incl. colourants and additives) and approx. 60% wood.
   PE is used as the plastic and the aim is to achieve the highest possible recycling rate during production.
   WPC EXOTICS is PVC-free. This combination makes it particularly environmentally friendly..



- Production-related **tolerances** (max.): Length + 10 mm, width +- 2.0 mm, thickness +- 1.0 mm. Planks are cut at right angles. The difference in width must be measured at the end joints. Height differences **are barely noticeable** due to the head joint.
- Storage: If your building project is delayed, never store the boards vertically. They should be stored **dry**, **flat and fully supported**, and stacked neatly.
- **Preparation:** Give the boards and the substructure time to acclimatise at the installation site (temperature acclimatise at the installation site (temperature / ambient humidity).

#### Installation instructions:

# A) Substrate and substructure:



- 1 = Substrate
- 2 = Root fleece
- 3 = Separation e.g. concrete slabs with rubber granulate or stilt feet
- 4 = Substructure beams
- 5 = Decking boards WPC EXOTICS 23x138 mm

The substructure must always be decoupled from the subfloor (rubber pads min. 8 mm or pedestals) to ensure **water drainage** under the substructure and to **prevent moisture** from the floor. For suitable accessories, see the Braun and Würfele catalogue.

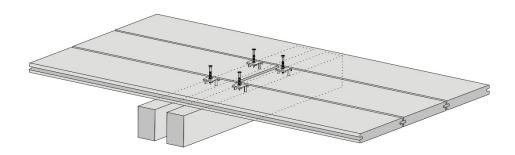
The substrate under the subfloor must be stable and dry. A construction height of 10 cm and open edge areas between the subfloor joists ensure **sufficient ventilation**. To improve ventilation, we recommend replacing the first and last boards with ventilation grilles.

Furthermore, the **centre-to-centre spacing of the substructure** (centre to centre of the substructure joists) in privately used gardens should **not exceed 40 cm**. For commercial or public decking areas, the maximum substructure spacing is reduced to a maximum of 30 cm. Ideally, the substructure joists should be **permanently fixed to the sub soil** (both ends and at least once in the centre). This prevents the substructure from moving and 'pulling up' at the end of the covering. Alternatively, although not with the same effect, the subfloor can be laid with cross bracing in a 'frame construction'.

The substructure should generally be planned in such a way that the planks do not protrude laterally and at the head (not load-bearing)!

The substructure must be doubled at the head ends and at the head joints. A distance for water drainage must be maintained between the two substructures under the head ends (projection of the boards = 5 mm over the substructure).





Furthermore, the substructure must be planned in such a way that the planks to be laid later achieve **a slope of 2%** (= 2 cm per running metre) in the direction of the planks in order to ensure appropriate water drainage.

# B) Laying decking boards

Use the Cobra hybrid clip 8-18M (90 clips + 90 screws for wood / aluminium + bit) to fasten the boards and the Cobra start and end clips for the start and end. The screws work for wood (up to 800 kg/cbm) and aluminium (2-3 mm wall thickness). 8-18S (24 mm aluminium substructure) and 8-18L (hardwood substructure over 800 kg/cbm) are also available. 5-6 mm joint width is specified by the clips.

The use of third-party clips is not recommended due to the lack of fixation and lack of testing and always leads to a loss of warranty and guarantee. Pre-drilling for clip screws is always recommended and prevents screw breakage and overheating, as well as joint bursting of the substructure.

For more than 2 length joints (our first recommendation even for more than one joint):

- Increase head joint spacing by 2 mm
- Stagger butt joints by at least one metre to increase the stability of the overall surface.

## C) Calculation of the plank spacing (head side)

Due to the temperature-related change, the following joint spacings must be maintained on the head side depending on the material temperature during installation:

Material temperature during installation	3 m board	4 m board	5 m board
10 °C	4,8	6,4	8,0
15 °C	4,2	5,6	7,0
20 °C	3,6	4,8	6,0
25 °C	3,0	4,0	5,0
30 °C	2,4	3,2	4,0
35 °C	1,8	2,4	3,0

Installation is not recommended outside of these material temperatures. The distance to surrounding components must be at least 6 mm (or more according to the temperature table, the higher value counts).

## D) Edge finishes

As a general rule, **the less edging your patio has, the better!** This is because any type of edging inhibits the ventilation of your decking. However, if you do not want to do without a vertical edging for visual reasons, we recommend standard aluminium or stainless steel angled edging. **The following principles apply here:** 

- Do not insert over the full height so that air can still flow underneath.
- Do not place close to the plank (water drainage is impeded, use spacer blocks).
- Fastening to the substructure.



## **Care instructions:**

- Cleaning with a damp wipe is normally completely sufficient, as the protective layer does not provide an adhesion base. Simply clean your WPC decking in the same way as the interior floor!
- Gentle blasting with a high-pressure cleaner is also possible, e.g. after long intervals.
- After the winter and when facing north, a commercially available green film remover will quickly restore a flawless appearance.
- In the case of pollen, you should avoid sticking and start cleaning gently with hot water and a scrubbing brush before any other cleaning. Do not use a plastic cleaner at this stage, as some products contain silicone and contribute to the pollen sticking.
- Stubborn stains and small scratches can then be easily removed visually with a layer-forming plastic cleaner.
- Scratches can be reduced using a hot air gun and/or fine sanding sponge (practise carefully on small remnants, requires some practice).
- At the pool or pond: Even if our co-extrusion layer protects against dirt adhesion: Chlorine, salt and other minerals such as limescale can stubbornly adhere to the surface, especially when laid level (ZERO slope). Even glass (see limescale deposits in the shower) is affected by this. Use commercially available CLR cleaners to remove minerals. Ask your specialist dealer for a product recommendation.

# Information about the surface:

- Good co-extrusion protective coatings are characterised by UV resistance, as well as resistance to stains and easy cleaning.
- However, the wood-free co-extrusion layer often results in a high degree of gloss and an artificial-looking surface. **Not with WPC EXOTICS!**
- WPC EXOTICS avoids this by **brushing the surface**. The look and feel are much **more natural** and much closer to wood. Perfect for your garden!
- To achieve this, the surface needs to be slightly softer to enable the brushing process. Follow our instructions for avoiding scratches and for possible reduction/removal.
- **During the brushing process, fibres are released**, some of which are noticeable at the beginning, others only later. No material dissolves here, but the fibres pressed down during brushing slowly detach from the WPC EXOTICS surface. This is a well-known and natural property, but 'unfortunately' it disappears over time. The fibres gradually dissolve due to **mechanical stress** (use of the decking) and the **weather**.

IMPORTANT: Always fit furniture with new protectors/glides, do not use hard PVC, but Teflon protectors if possible (available as accessories online and in furniture stores).

In rare cases of electrostatic charging, please proceed as follows:

- Clean the surface as described above, often everything is then already taken care of.
- Provide wind protection (electrostatic charge is stored kinetic energy).
- If all else fails: Contact us via your dealer/seller (care products).