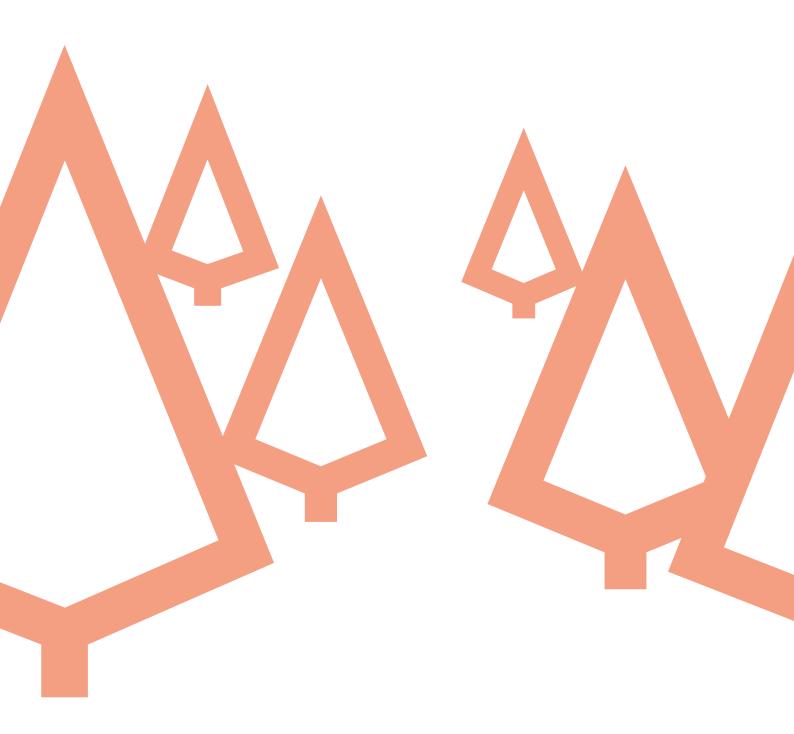


TWPC DECKING INSTALLATION GUIDE

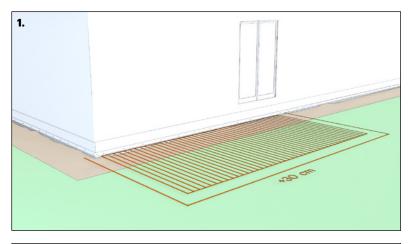


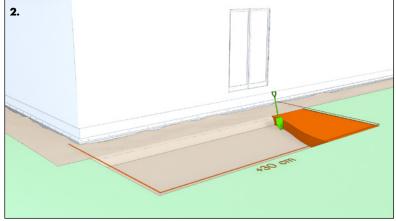
WWW.LUNAWOOD.COM

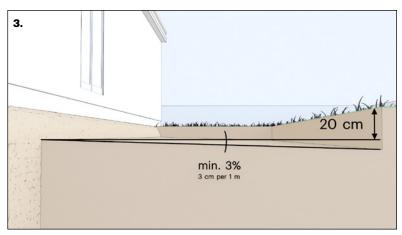
TWPC Decking Installation Guide

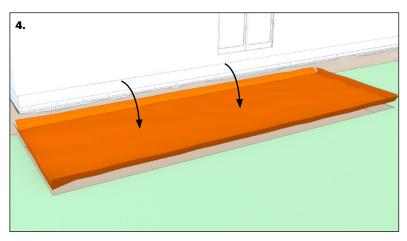
Private use only, please consult Lunawood if the object is included in public project.

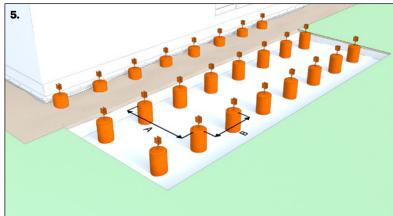
Please check and read carefully legal disclaimer and written instructions after the picture guidelines.



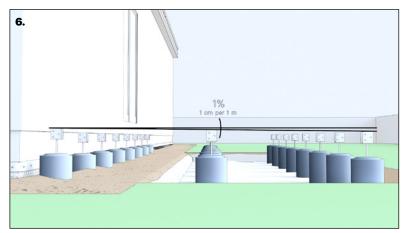


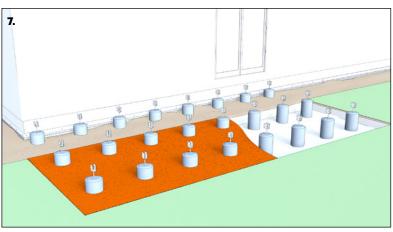


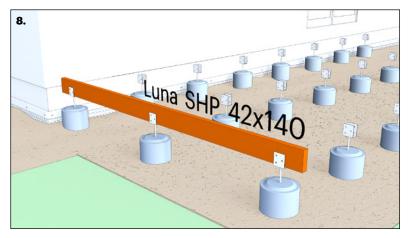


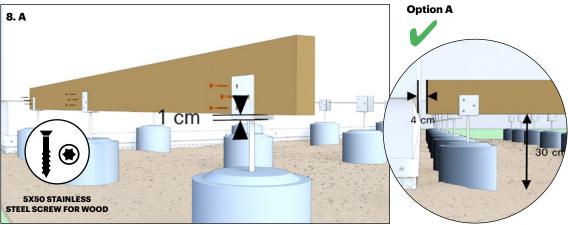


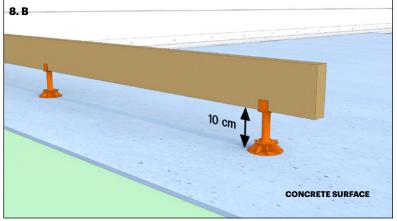
| Α | max. 120 cm - 140 width support |
|---|---------------------------------|
| В | max. 80 cm - 92 width support |

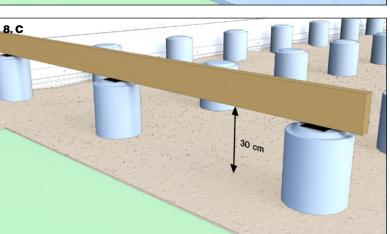












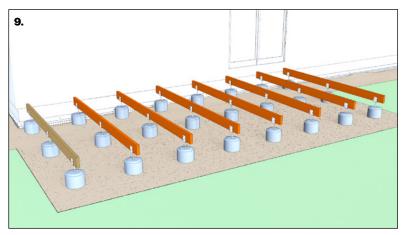
Option B

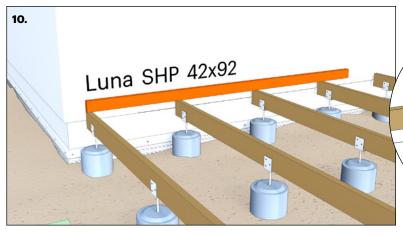


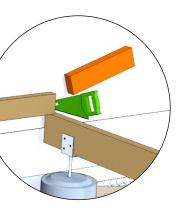
Option C

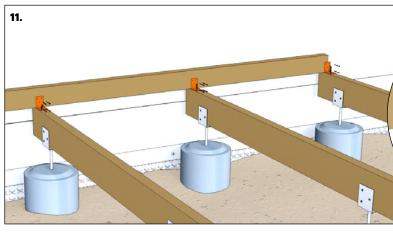


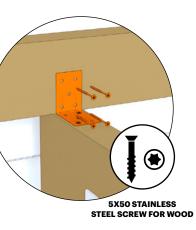
Bitum layer to block moisture to rise from the ground to the timber structure.

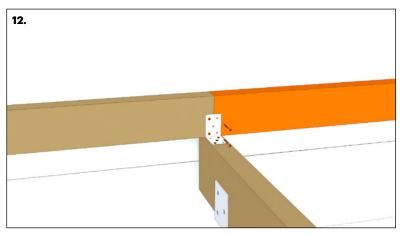


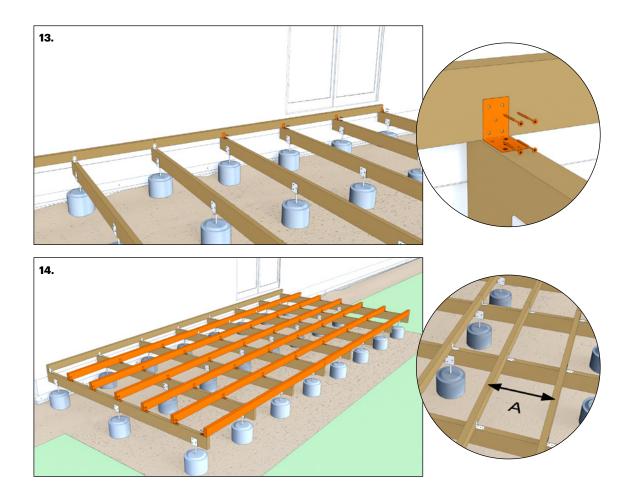








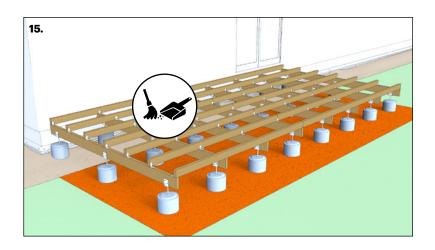


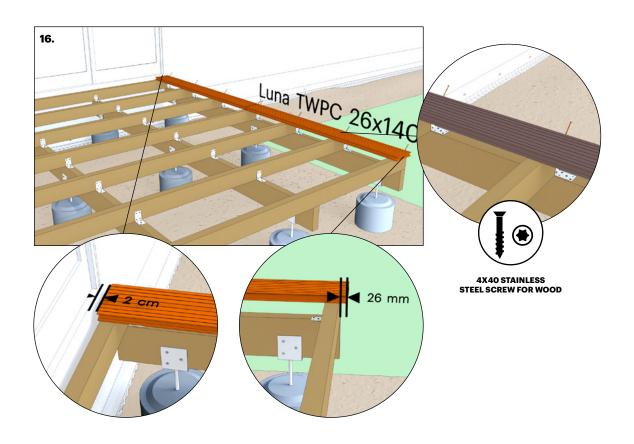


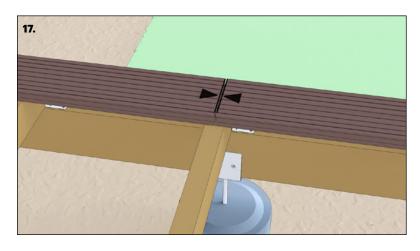
Deck Board



| | h = 26 mm | h = 42 mm | |
|---|------------|------------|--|
| Α | max. 45 cm | max. 60 cm | |





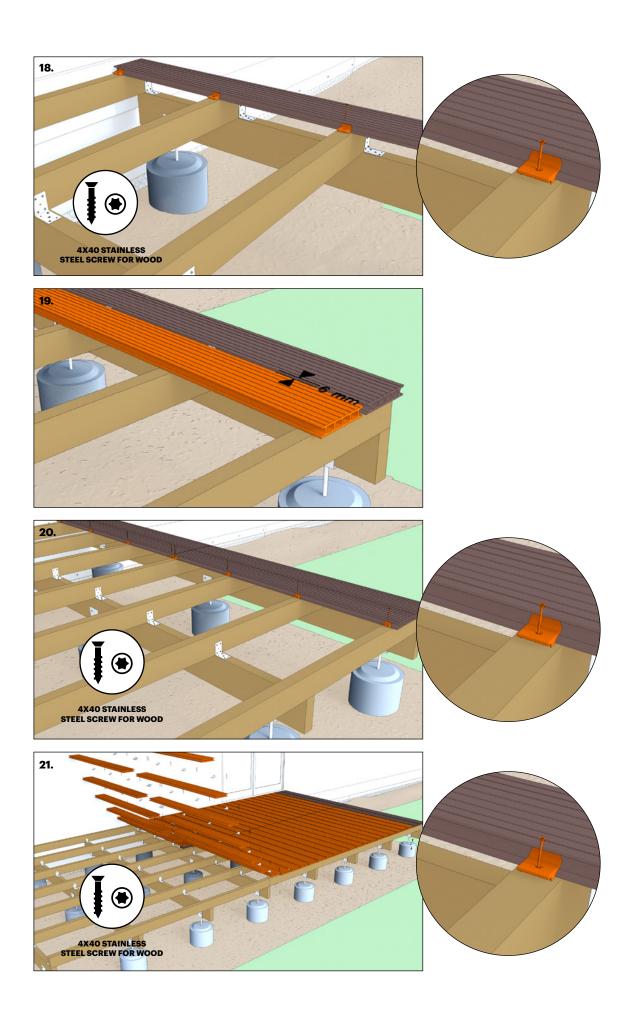


When laying more than one board joined end to end, it is recommended to place a screw-fixing directly through the board, either through the face or hidden in the edge, at a halfway point along the length. This will ensure equal thermal expansion or contraction either side of the central fixing.

TWPC Thermal expansion and contraction in length due to changes in temperature – needed space between the boards

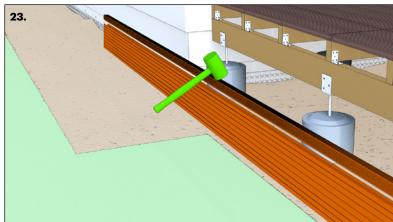
mm expansion / contraction

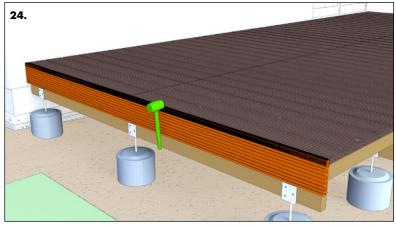
| | 1 m board | 2 m board | 3 m board | 4 m board |
|-----------------------|-----------|-----------|-----------|-----------|
| 10 °C change | 0,3 mm | 0,6 mm | 0,8 mm | 1,1 mm |
| 20 °C change | 0,6 mm | 1,1 mm | 1,7 mm | 2,3 mm |
| 30 °C change | 0,8 mm | 1,7 mm | 2,5 mm | 3,4 mm |
| 40 °C change | 1,1 mm | 2,3 mm | 3,4 mm | 4,5 mm |
| 50 °C change | 1 mm | 2,8 mm | 4,2 mm | 5,6 mm |
| difficult to estimate | 3 mm | 4 mm | 5 mm | 6 mm |

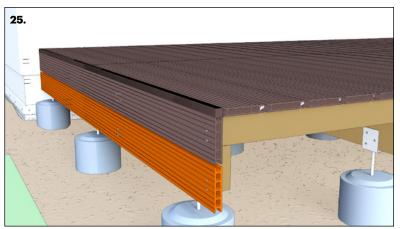




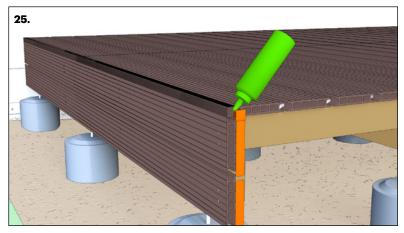


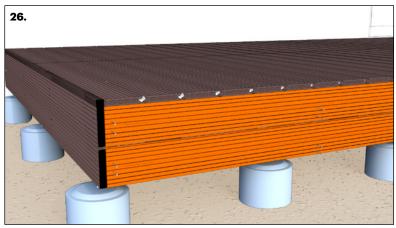




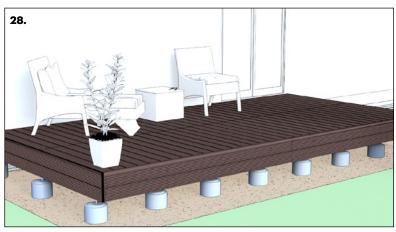












LEGAL DISCLAIMER - Lunawood TWPC Decking

BEFORE INSTALLATION

For best results, TWPC decking should be protected from direct sunlight and weather before installation by covering the material and keeping it off of the ground. Sun affects to the colour of the TWPC products immediately after installation. Within 2–6 weeks the UV light of sun has affected to fibers of thermowood and after that the colour change slows down drastically.

Stainless steel screws are required to properly fasten TWPC decking in order to have longer lifetime and no appearance of rust – if the board is installed through the face, two screws per joist. The only hidden fastener accepted for use is the TWPC fast clip – system (suggested).

When screwing through the face, a Standard miter and table saws with carbide-tipped, sharp blades are appropriate to use.

This guide and the animation of building TWPC deck in Lunawood.com – is to promote water shedding and the ease of drying (continuous, efficient ventilation around the deck boards and deck area).

- The under structure or sub frame should be made from suitable material with the necessary durability and design so as not to adversely affect the performance of the TWPC deck board.
- Space beneath the deck has to be sufficient enough to allow air circulate and allow wetted ground to dry.
- The humid air that drying ground releases is trapped beneath the deck e.g. the space beneath the deck area is concealed with structures or boards – avoid this.
- The contact surface between joists and deck boards should be as minimal as possible.
- If the terrace is next to a building the drop should be designed so that water runs away from the building and decking boards should be laid in the same direction.
- Avoid water entrapment under planters, sand pits, paddling pools or similar objects. These items should be moved or rotated regularly to avoid permanently wetting an area of the deck
- Ensure regular cleaning of the deck to remove dirt from between the boards and from the top of the surface. Obstacles such as leaves, needles and other outdoor materials will restrict water shedding and allow water trapping
- There should be a minimum 6mm gap between boards to allow for water drainage.

INSTALLATION

Lunawood decking products are carefully manufactured and inspected to ensure quality. However, these are natural wood products and are subject to some variations in weight, density and color. TWPC decking is naturally subject to dimensional changes as the surrounding temperature in the TWPC boards fluctuates with the changing weather's temperature. Length

changes are normal occurrences in TWPC decking. Nevertheless, with TWPC decking the swelling and shrinkage of length are minimal like you can see from below statistic.

TWPC Thermal expansion and contraction in length due to changes in temperature – needed space between the hoards

mm expansion / contraction

| | 1 m board | 2 m board | 3 m board | 4 m board |
|-----------------------|-----------|-----------|-----------|-----------|
| 10 °C change | 0,3 mm | 0,6 mm | 0,8 mm | 1,1 mm |
| 20 °C change | 0,6 mm | 1,1 mm | 1,7 mm | 2,3 mm |
| 30 °C change | 0,8 mm | 1,7 mm | 2,5 mm | 3,4 mm |
| 40 °C change | 1,1 mm | 2,3 mm | 3,4 mm | 4,5 mm |
| 50 °C change | 1 mm | 2,8 mm | 4,2 mm | 5,6 mm |
| difficult to estimate | 3 mm | 4 mm | 5 mm | 6 mm |

Local building codes must be consulted when building an exterior deck. Most countries may require building permits. Please also see the animation of TWPC decking in www.lunawood.com and PDF guide in www.lunawood.com too.

Safety glasses and a dust mask should always be worn when working with TWPC decking. We recommend an active carbon filter dust mask. Drilling, Sawing, sanding or machining wood products generates wood dust. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.

Drawings and schematics used to show where to place screws and nails are for reference purposes only. Decking must be built in accordance with regulatory requirements. Should the intended walking traffic requires it, the number of battens (or joists) for a decking project may be increased from the recommended in TWPC Installation animation or PDF guide in www.lunawood.com.

MAINTENANCE

Every exterior surface made from Wood Plastic Composite, needs regular maintenance. This means in practise; cleaning the surfaces with soapy water and right amount of water. Use brush of similar. Avoid harming the actual surface of the exterior decking or face when cleaning.

If exterior surfaces are not maintained regularly there will be surface mould, dirt, dust, soil, leaves, air impurities building up to the surfaces which will shorten lifetime of the product drastically.

| PROBLEM | SOLUTION |
|--------------------------|---|
| Dirt and Debris | The affected area should be sprayed off with a hose to remove surface debris. Use warm soapy water and a soft bristle brush to remove dirt and debris from the embossing pattern. |
| | You can also try pressure washer, but leave enough space between the boards and mouthpiece of pressure washer to avoid harming the surface of the terrace board. |
| Ice and Snow | A plastic shovel may be used to remove snow from the deck. |
| Oil, Grease, and Food | All food spills should be removed as soon as possible. The surface must be cleaned immediately when noticed. To remove, spray off with a hose and use warm, soapy water and a soft bristle brush to remove spills from the embossing pattern. |
| Mold and Mildew | If debris such as pollen and dirt is allowed to remain on the deck surface, mold can feed on the biofilm. Using a hose and warm, soapy water with a soft bristle brush is recommended to remove the food source and mold. |

ucts or services do not constitute an endorsement, sponsorship, or recommendation. If you follow links to third party Web sites, including the Web sites of any other companies affiliated or unaffiliated with Lunawood, you are subject to the terms and conditions and privacy policies of those sites, and Lunawood makes no warranty or representations regarding those sites. Further, Lunawood is not responsible for the content of third party or affiliated company sites or any actions, inactions, results, or damages caused by visiting those sites.

DISCLAIMER OF WARRANTIES

THE MATERIAL IN THIS WEB SITE OR IN THIS DOCUMENT IS PROVIDED "AS IS," WITHOUT ANY KIND OF WARRANTY. THE MATERIAL ON THIS WEB SITE IS NOT A WARRANTY AS TO ANY PRODUCT OR SERVICE PROVIDED BY OY LUNAWOOD LTD OR ANY SUBSIDIARIES.

LIMITATION OF LIABILITY

OY LUNAWOOD LTD IS NOT LIABLE FOR ANY ERRORS, DELAYS, INACCURACIES, OR OMISSIONS IN THIS SITE OR ANY SITES THAT ARE LINKED TO, OR REFERRED TO BY, THIS SITE. UNDER NO CIRCUMSTANCES SHALL OY LUNAWOOD LTD BE LIABLE FOR ANY DAMAGES, INCLUDING INDIRECT, INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES THAT RESULT FROM THE USE OF, OR INABILITY TO USE, THIS SITE WHETHER BASED ON ACTIONS IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, EVEN IF OY LUNAWOOD LTD HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

OTHER INFORMATION

Every deck is different and this guide nor animation by Lunawood in www.lunawood.com should not be considered to set out how a deck should be constructed in every circumstance. We accept no liability for any loss or injury caused by any reliance placed on this guide. Lunawood reserves the right to update or revise the Terms and Conditions regarding installation guides in www.lunawood.com.

The entire content of the Site is protected by copyright. You may not copy, distribute, or create derivative works from any part of this Web site (including its graphics, pictorial matter, and text) without the prior written consent of Oy Lunawood Ltd unless otherwise expressly permitted by the Site.

Lunawood®; Lunawood TWPC and Lunawood Thermowood Plastic Composite, Profix are trademarks, service marks or trade names of Oy Lunawood Ltd and may not be used without prior written permission. Any links on this document or Lunawood.com to third party Web sites are not an endorsement, sponsorship, or recommendation of the third parties or the third parties' ideas, products, or services. Similarly, any references in this Site or document to third parties and their prod-











WWW.LUNAWOOD.COM