



DECKING INSTALLATION GUIDE

 **FORESTAR** YOUR RELIABLE WPC SUPPLIER!

A photograph of a modern outdoor swimming pool on a wooden deck. The pool is rectangular and filled with clear blue water. The deck is made of light-colored wooden planks. In the background, there are green hills, a forest of evergreen trees, and mountains under a blue sky with some clouds. A modern building with large windows and a balcony is visible on the right side of the image.


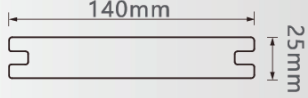

FORESTAR
Product Line
DECK

Embrace art and reality in every act and movement



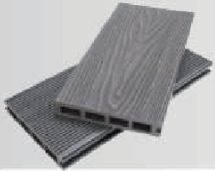
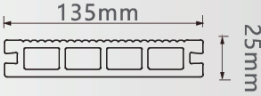


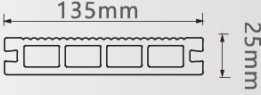
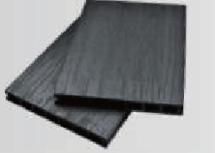

EXCELLENT PERFORMANCE OF WPC DECKING

ANTI-MILDEW/ CORROSION/ CRACK AND INSECT PREVENTION-
ANTI-STAINING/ SCRATCHES-
UV RESISTANCE-
PAINTING NOT REQUIRED-
NO METHANAL-

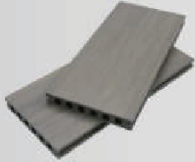

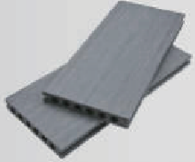









PRODUCT SPECIFICATION

Product	Code	Dimension	Profile Drawing	Embossing
	FS DEK 005	Width 150mm Thickness 25mm		✓
	FS DEK 006	Width 150mm Thickness 23mm		
	FS DEK 012	Width 146mm Thickness 25mm		
	FS DEK 015	Width 140mm Thickness 25mm		
	FS DEK 016	Width 140mm Thickness 25mm		
	FS DEK 022	Width 135mm Thickness 25mm		✓

PRODUCT SPECIFICATION

Product	Code	Dimension	Profile Drawing	Embossing	
	FS DEK W-01-C01	Width Thickness	135mm 25mm		✓
	FS DEK W-02-C02	Width Thickness	135mm 25mm		✓
	FS DEK W-02-C01	Width Thickness	135mm 25mm		✓
	FS DEK W-02-C02	Width Thickness	135mm 25mm		✓
	FS DEK W-03-C01	Width Thickness	235mm 25mm		✓
	FS DEK W-03-C02	Width Thickness	235mm 25mm		✓

PRODUCT SPECIFICATION

Product	Code	Dimension	Profile Drawing	Embossing
	FS DEK 022-C01	Width 135mm Thickness 25mm		✓
	FS DEK 022-C02	Width 135mm Thickness 25mm		✓
	FS DEK 022-C03	Width 135mm Thickness 25mm		✓
	FS DEK 022-C04	Width 135mm Thickness 25mm		✓
	FS DEK 022-C05	Width 135mm Thickness 25mm		✓
	FS DEK 022-C06	Width 135mm Thickness 25mm		✓

PRODUCT SPECIFICATION

Product	Code	Name	Function	Application Conditions
	DEK-028	L-form stair corner	used for the edge banding of the stair corner	146X25cm CWC design
	ACC-02	joist	applied to lay the base structure	commonly used
	FS DEK 015	joist	applied to lay the base structure	commonly used
	KK-04	PE double clips	used for the connection and fixing of decking (the gap is 8mm)	the groove of decking is above 8mm.
	KK-05	T-form clips	used for the connection and fixing of decking (the gap is 5mm)	the groove of decking is above 7mm.
	KK-08	Black-head screws	used for in the connection and fixing of decking	commonly used

PRODUCT SPECIFICATION

Product	Code	Name	Function	Application Conditions
	KK-07	stainless steel start clips	used for the connection and fixing of decking	customize in accordance with the height of groove
	KK-07	stainless steel clips	used for the connection and fixing of decking (the gap is 3mm)	commonly used
	ZSFB-03	plastic end cover	used for the connection and fixing of decking	commonly used
	ACC-17	aluminum seal edge	used for the edge banding	commonly used
	ACC-07	WPC seal edge	used for the edge banding	commonly used
	SLPZ-8080P	expansion bolts	applied to fix the joist base	commonly used

PLEASE READ THE INSTALLATION GUIDE CAREFULLY BEFORE DO ANY INSTALLATION.

We suggest you to acquire detailed knowledge of your local laws and regulations before install FORESTAR products. This manual can only offer instructions for correct installation rather than a substitute for laws and professional permission. Installing FORESTAR products shall comply with the relative local laws and regulations. All risk and responsibility that relate to construction shall be borne by users.

SAFETY

Operators should be equipped and apply safety protection equipment, i.e. operators should wear protective gloves, dust mask, long-sleeved clothes/ pants and goggles.

TOOLS

Normal tools for woodworkers are enough, but saw web treated by carbide solution and stainless screws are recommended.

ENVIRONMENT

A clean, flat and solid ground is required for the installation of FORESTAR products, and relative standards should be confirmed before assembling. In addition, the decking should be stacked up tidily on the ground.

PLANNING

A rational installation plan can enable the FORESTAR products to be installed in a fast and smooth way.

- Please make sure that everything shall comply with the relative local laws and regulations;
- The decking should be installed on a clean, flat and solid ground;
- Arrange the layout before lay the decking so as to make sure the perfect effect;
- We recommend you to make a relative construction drawing so that enhance the precision of the construction.

CONSTRUCTION

FORESTAR products can not be applied alone as bearing structure like girder and pillar, they must be applied together with those structural materials that are in line with requirements.

STATIC ELECTRICITY

As the natural phenomenon, static electricity is much easier to occur in the area of high latitudes due to less relative humidity. Therefore, please be carefully when apply FORESTAR decking with products that are easily to become conductive, such as iron railing, metal chairs and so on. Given this, it is recommended that spraying antistatic agent or laying antistatic rubber mat on the decking. Meanwhile, FORESTAR products are proved passable after being tested for the antistatic electricity property when human are walking on the decking and generate voltage.

DRAINAGE & VENTILATION

The enough space between decking and ground is required for adequate drainage, ventilation and dryness, in view of this, FORESTAR decking cannot be directly installed on the ground, but should be installed on the joists. If rain cannot be drained away in time while stay in the gaps that without protection between the decking, then this position would be easily expand after water absorption. Therefore, in order to ensure timely draining and good ventilation, the height between decking and ground should be no less than 100mm, if not, then the construction ground should be: 1. the slope for drainage should be 1-2%;

INSTALLATION GUIDE

2.the lowest ventilation height should be higher than the maximum waterlogging depth of the construction area, so that the decking will not be drowned.

HEAT RESOURCE & FIRE

Sustained high temperature that caused by fire and other heat resource will do harm to FORESTAR decking. Therefore, do not assemble FORESTAR products where are near to heat resource like fireplace. “Coating film glass with low radiation” has the effect of thermal insulation and warm-keeping via the high reflecting towards middle and remote infrared ray, but it can lead to heat reflecting that makes surrounding environment become heat resource after heating. We advise you to consult with your glass supplier about relative suggestions in advance, so as to reduce heat reflection.

ENVIRONMENT ADAPTATION

It is recommended that store FORESTAR decking for at least 2 days so as to make it adapt to the local temperature, which might avoid the contraction and shrinkage.

Note: outdoor decking should be piled up tidily on the solid ground after being raised, or the uneven ground will lead to deformation of decking.

STORAGE

FORESTAR products should be piled up tidily on the flat and solid ground after being raised.

Find the correct storage method as shown in the figure 1, jack up the FORESTAR products and put them on the leveled and solid ground.

Find the incorrect storage method as shown in the figure 2, the uneven ground would lead to the deformation of FORESTAR products.

It also works if adjust the rugged ground to flat by certain base and then pile up the FORESTAR products (see figure 3).

For the load bearing issue of the base, please consult with the producer who produces adjustable bases.

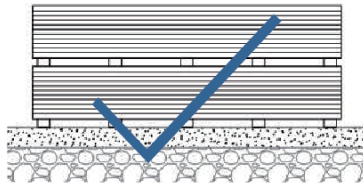


Figure 2

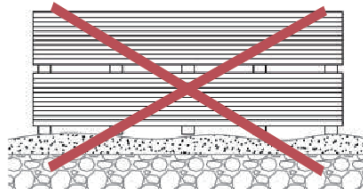


Figure 2

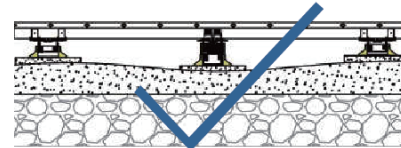


Figure 3

EDGE MILLING

For solid decking, the edge milling machine for woodworking can be applied to mill and notch the broadside so as to install clips, but please attention that do not mill and notch the whole broadside of the whole decking piece. When install the edge board, you can use an edge milling machine or a woodworking bench drill to drill a hole with a little larger diameter than the bolt and then screw it, so that warping and deformation caused by expansion and contraction can be avoided. See the figure 4.

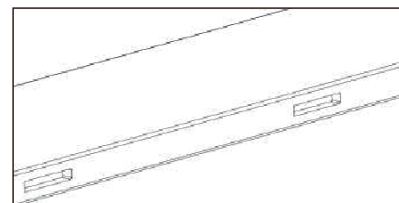
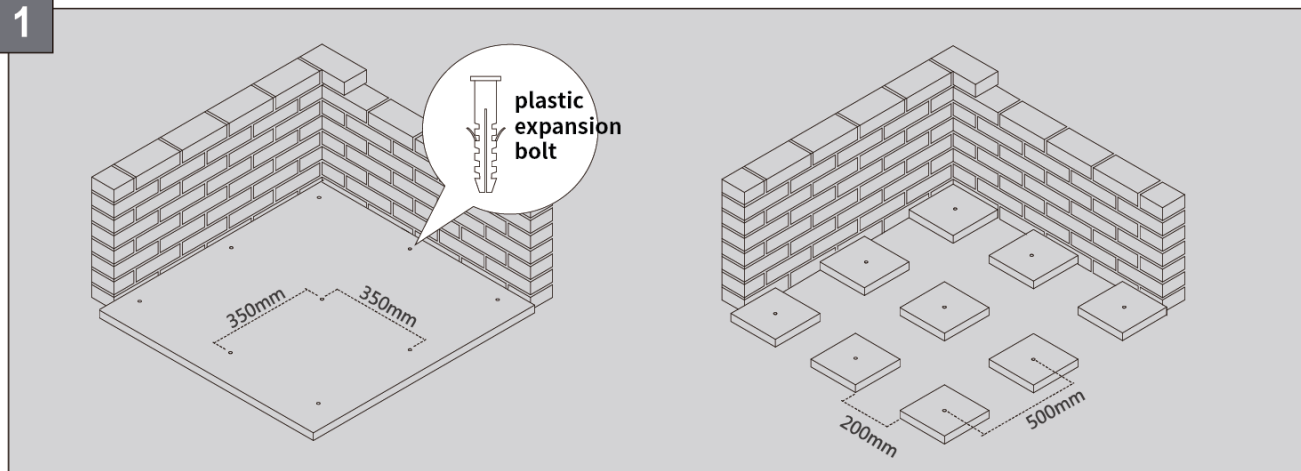


Figure 4

INSTALLATION INSTRUCTION

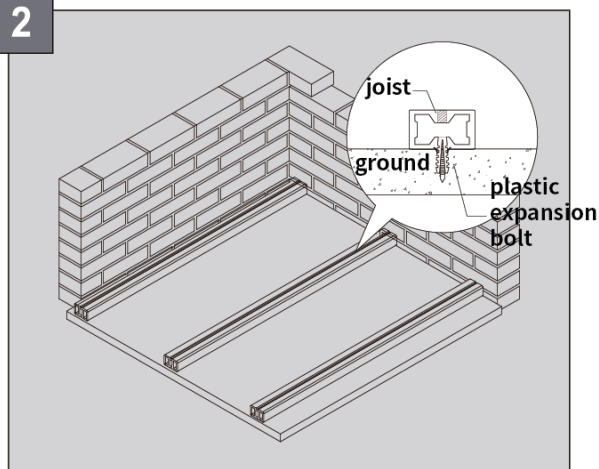
1



Apply a percussion drilling to drill holes with the size of 08×80 in the installation area. Please keep the distance between the holes from 300 to 350mm or within 400mm.

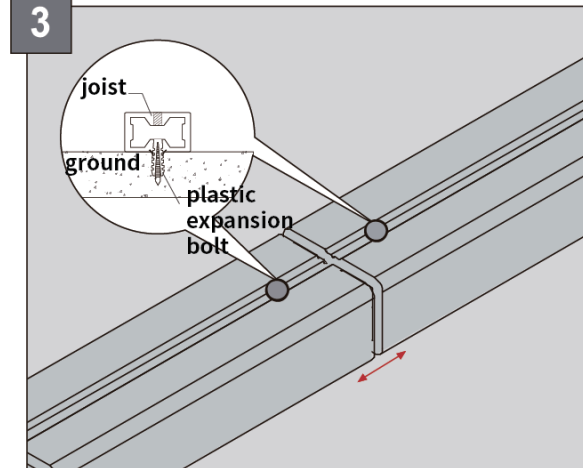
Put the plastic expansion bolt(08×80) into the hole, please make sure the bolt tight enough and will not loose.

2



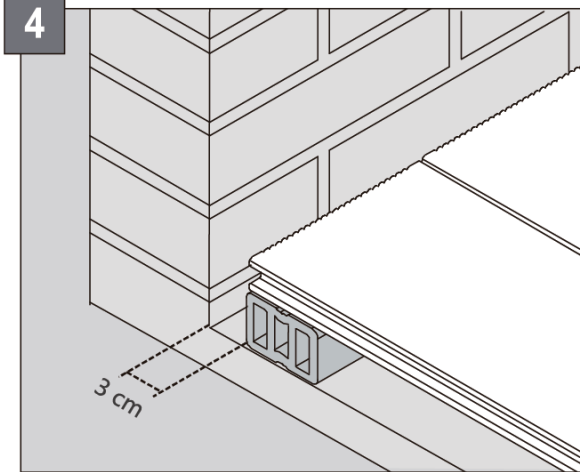
Put the WPC joist into the installation area, and then fix it with the plastic expansion bolt($C 8 \times 80$).

3

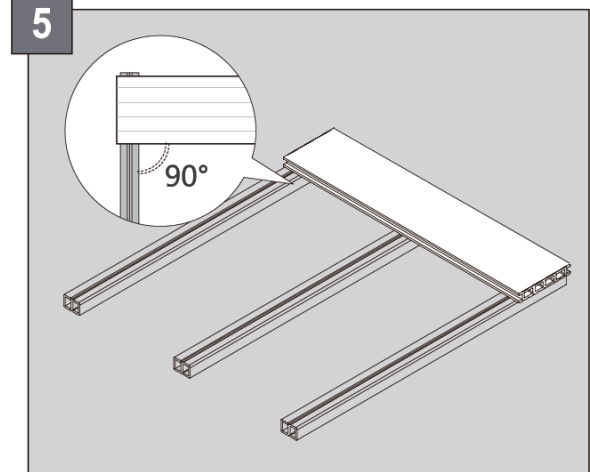


The space between the joists should be 3cm when another joist is needed.

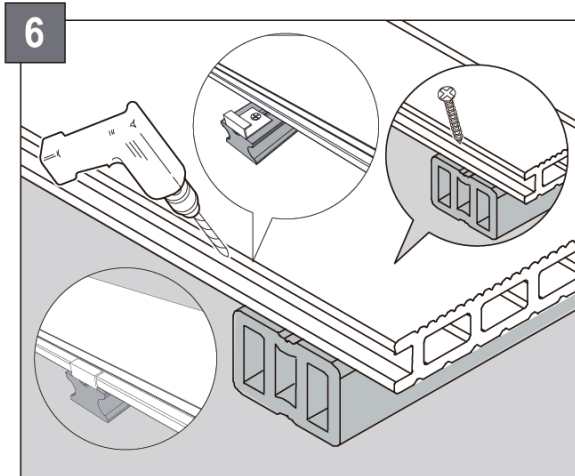
INSTALLATION INSTRUCTION



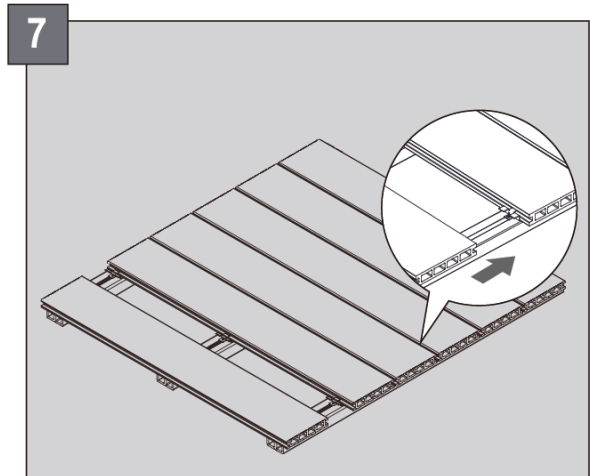
Please keep the expansion joint of 3cm between the joist and wall.



Please guarantee that joist be perpendicular to the floor.

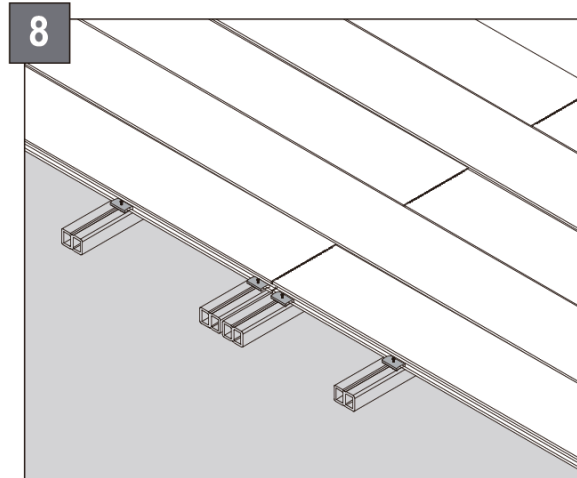


Use starting clips to fix the first decking at the starting area of the floor, or you can also fix the joist to the decking by using screws on the groove.

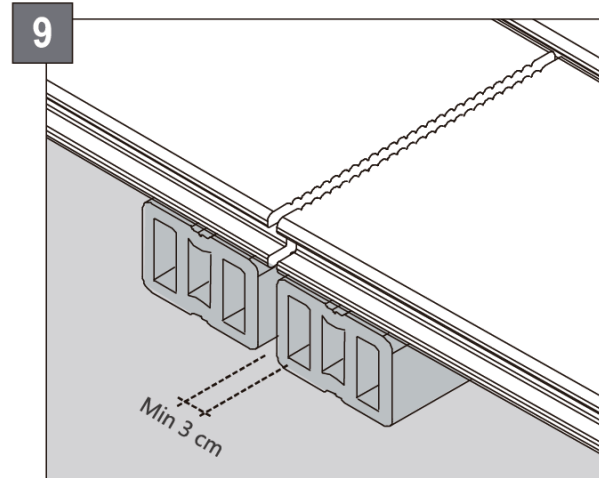


After fix the first decking, then put clips on the notch of the decking and push the second decking, next, fix the clips with a pistol drill, and the rest decking can be done in the same manner.

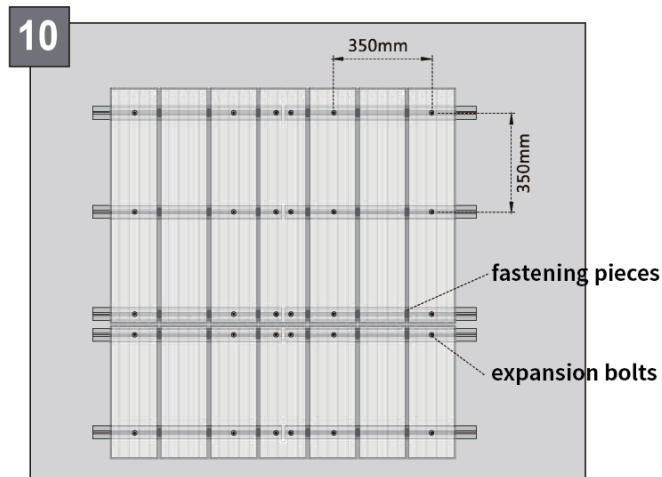
INSTALLATION INSTRUCTION



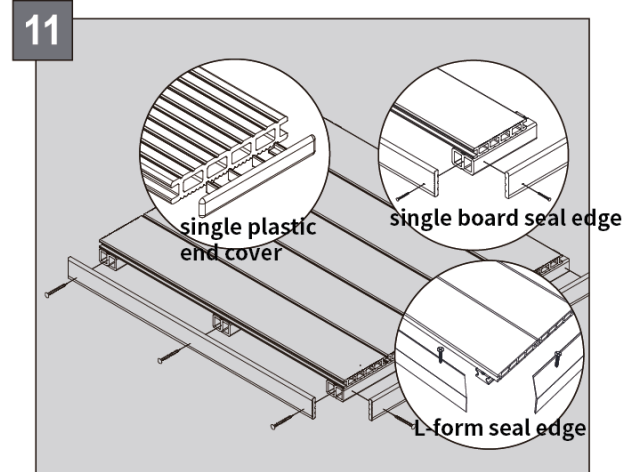
Two joists are required in the jointing area of the two decking pieces.



Please make sure to keep certain distance between two decking boards, and remember that two joists are required in the junction as well as fixing every junction with clips, by doing so, deformation of creep can be avoided.



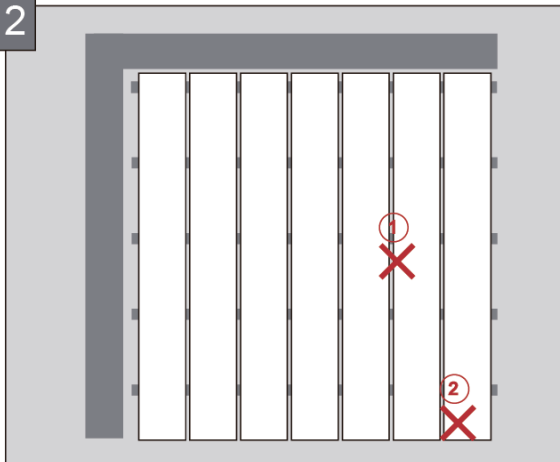
Please find the perspective drawing of the whole installation as above.



Please fix the edging band with screws after finishing the whole installation of the decking, you can find different types of edging bands shown as the figure above.

INSTALLATION INSTRUCTION

12



- 1) The decking as a whole is too long.
- 2) The side of decking is too far away from the joist.

13



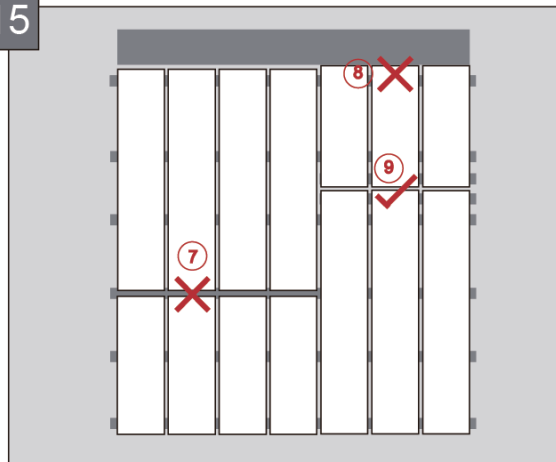
- 3) No joist in the connection's bottom of two decking boards.
- 4) Double joists are required in the jointing area of the two decking pieces.

14



- 5) Double joists are required in the jointing area of the two decking pieces.
- 6) The gap is too small in the jointing area of the two decking boards.

15



- 7) No double joists in the jointing area of the two decking boards.
- 8) The decking is too close to the wall.
- 9) Double joists applied in the jointing area of the two decking pieces, and the gap in the connection area is suitable.

INSTALLATION INSTRUCTION

16

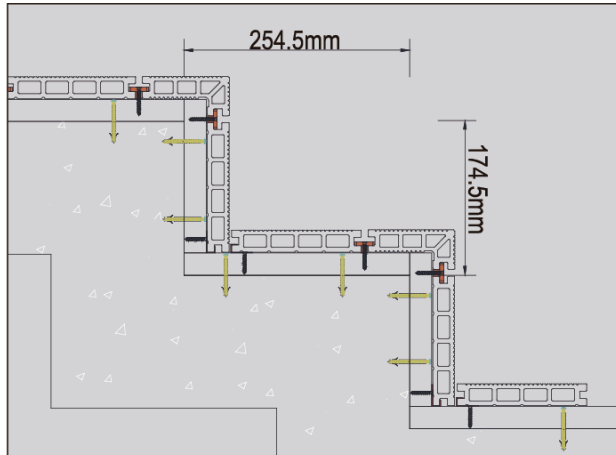
	10°C	20°C	30°C	40°C	50°C	60°C	70°C	80°C
1.0M	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
2.0M	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
2.2M	1.1	2.2	3.3	4.4	5.5	6.6	7.7	8.8
2.9M	1.5	2.9	4.4	5.8	7.3	8.7	10.2	11.6
4.0M	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0
5.0M	2.5	5.0	7.5	10.0	12.5	15.0	17.5	20.0
5.8M	2.9	5.8	8.7	11.6	14.5	17.4	20.3	23.2

The table above tells how the length of decking alters with different temperature. Please attention that the first line are the values of temperature differential. We suggest to install the decking when temperature differential can only lead to the length adjustment within 10mm in the installation area (i.e. Try to avoid the the coldest time in winter and the hottest time in summer).

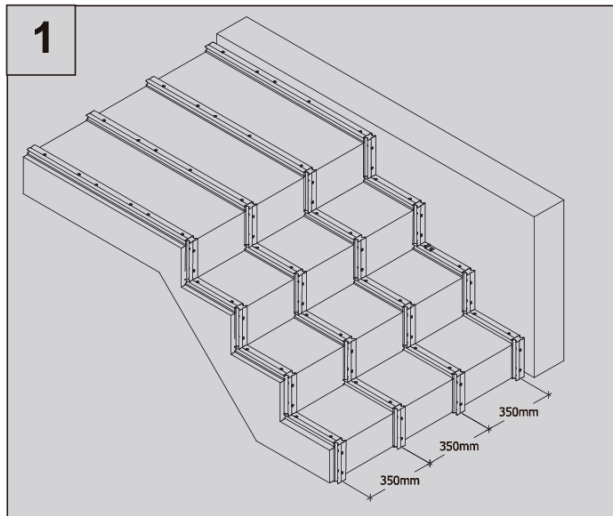
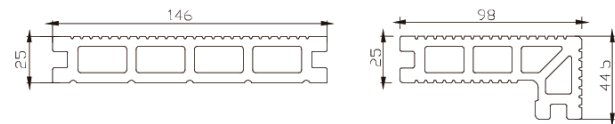
The chart above shows:

- 1)For most areas in China, the temperature differential is no more than 40°C, so we suggest the length of decking is within 2.9m and the expansion gap between the junction of two boards is at 5.8mm.
- 2)According to the contraction principle, the maximum size of expansion gap should be keep when install in the coldest time of winter.

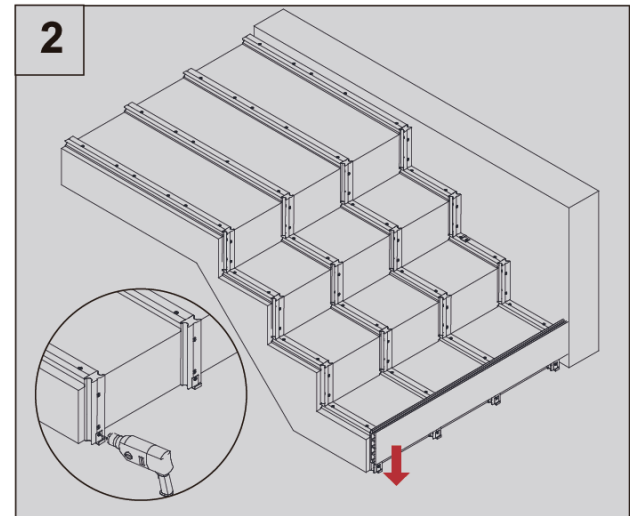
INSTALLATION INSTRUCTION - STAIRS & CORNER



This corner product is compatible with the decking of 146*25. Applying the four-hole decking requires high demand for the construction site and dimension of the stairs. (width of stairs: 254.5mm; height of stairs: 174.5mm)

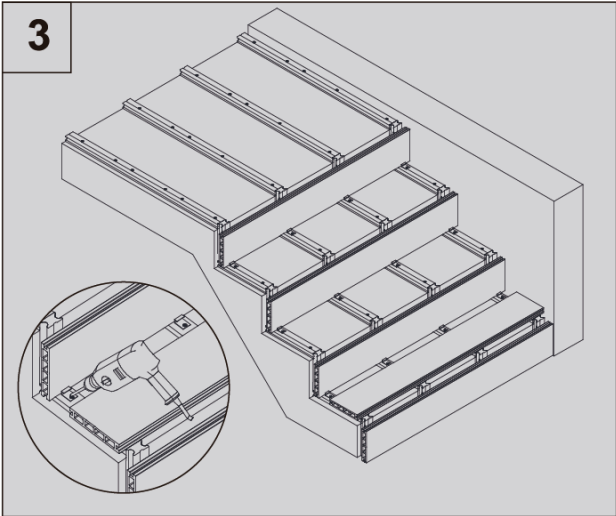


Install the joist firstly, just as what we suggest for decking, the distance between the joist should be within 350mm.

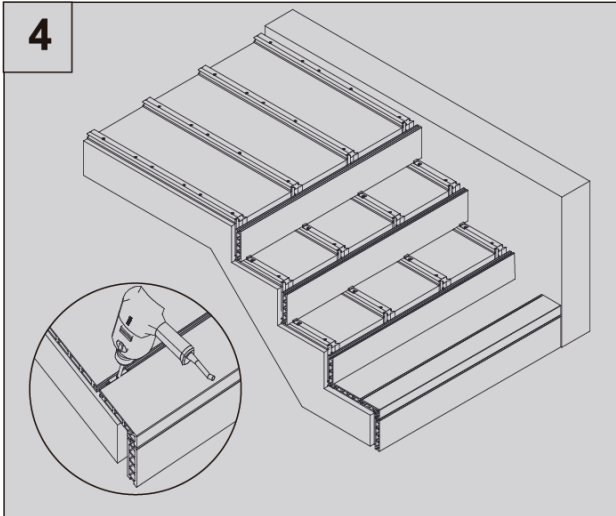


Install the fascia board in the lowest position of stairs, then fix it with starting clips and insert the decking.

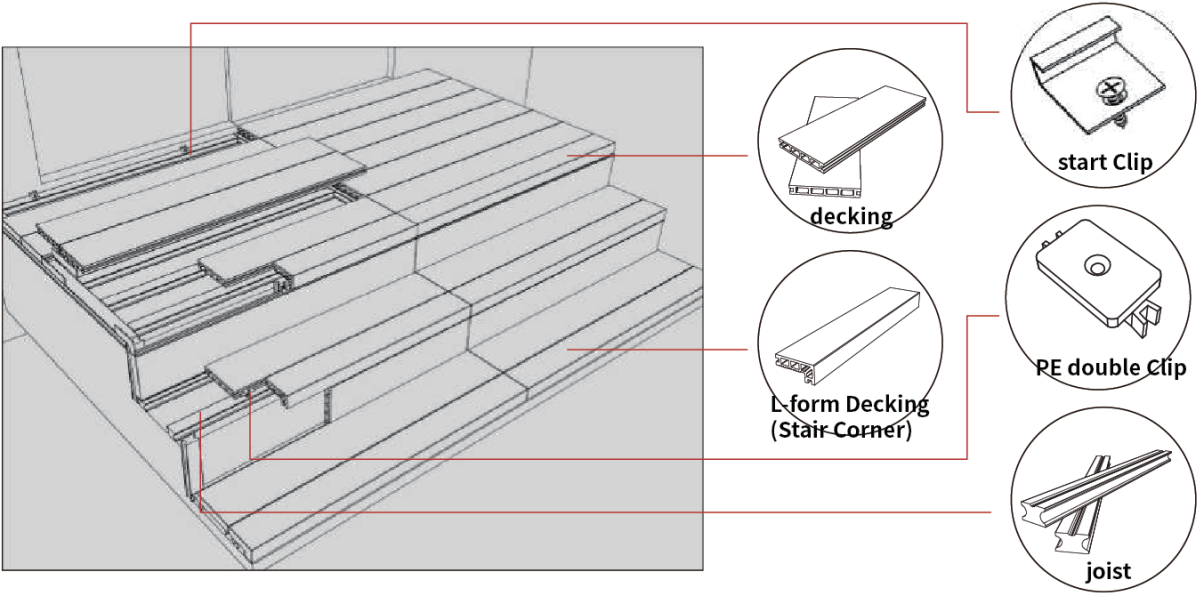
INSTALLATION INSTRUCTION - STAIRS & CORNER

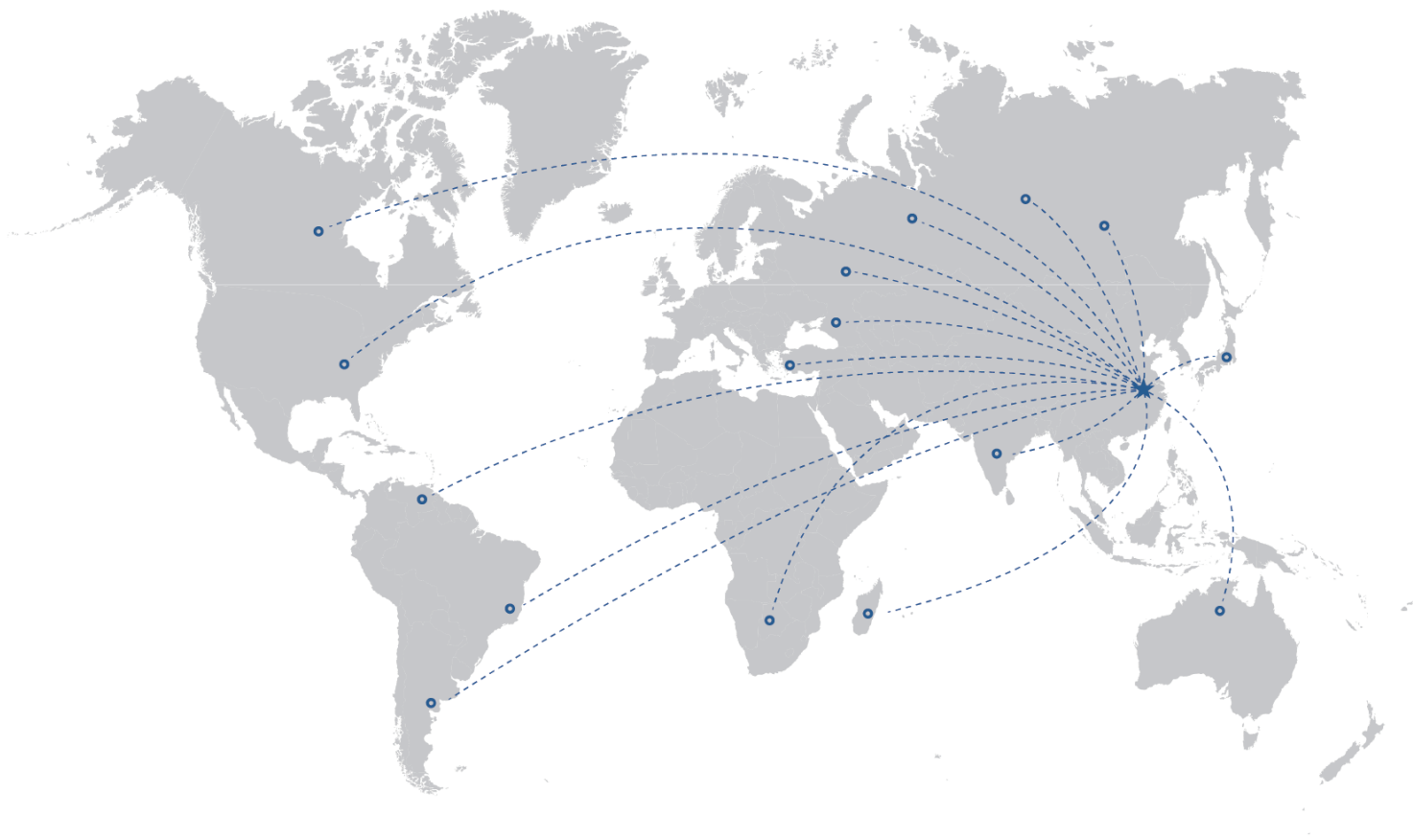


Install the decking piece after fixing of the upstanding piece.



Fix the stair corner board with clips.





Xuancheng Fumeida New Materials Co., Ltd

Add: 5, Meizigang Road, North District Industrial Park, Xuancheng, Anhui, China 242000
Tel: +86-0563-2062096 Fax: +86-0563-2062059
Website: www.china-wpc.com