



ECO FRIENDLY – MAINTENANCE FREE

Product Information

WPC (Wood Plastic Composite) is a new type of material made by mixing wood powder with HDPE (High Density polyethylene) and other chemical additives. WPC decking is a safe, environmentally responsible alternative new material that is **Eco Friendly and Maintenance FREE**. The main material wood powder is sourced from wood offcuts and waste from manufacturing factories and recycled plastic also sourced from factory and household waste.

Modern Deck is Maintenance Free, is a solid board (not hollow), Termite resistant, Superior hard shell (Co-extrusion), Stain resistant, Mould resistant, Fade resistant, Realistic wood grain appearance, Not shiny like other WPC products with a plastic look, 3D anti slip finish and comes in 5.4m lengths.

Important points prior to installation

1. Slight colour and surface differences may occur due to difference in raw materials used in manufacturing; this ensures your deck has a natural appearance.
2. Please take care when handling, installing and storing your Modern Deck boards like all WPC products it will scratch if sharp or heavy objects are dragged across the surface. The Co-extrusion super hard shell that surrounds the core is susceptible to scratching and chipping if care is not taken like all WPC products. One way to remove scratches is with a wire brush or scouring pad, rubbing in the same direction as the grain.
3. It is necessary to **acclimatise the decking boards on site for 48 hours before installation**. Lay the boards out on the deck frame to allow the temperature to adjust to each individual board so at the time of fixing in place the correct board length is achieved. This is necessary as WPC decking expands and contracts length ways up to 1-1.5% of the length of the board depending on the different weather conditions. Lengths over 5.4m in extreme conditions can expand as much as 8mm as the board heats up and cools down. We recommend that on hot days you fix the boards down early in the morning, installing boards in direct sunlight on hot days may result in excess gapping when the boards cool down. Please refer to the spacing specifications at end of this document.
4. Due to the expansion and contraction (length ways) of WPC decking with changes in temperature throughout the day we recommend using a breaker board for decks longer than 5.4m that require butt joints, this will avoid having uneven butt joints randomly spread across your deck. For example if your deck was 7.5m long divide the deck into 3 equally spaced areas of 2.5m each with a breaker board between each area. Running a board 5.4m with a butt join at the end will require a 7mm space between any butt joints at 20°C.
5. Static build up is a phenomenon that may occur with WPC decking, there are a few ways to help eliminate this one is to earth the sub frame to the ground, use a static mat on the deck near the door and there are protective coatings that can be applied to the surface of the deck that will not affect the appearance. Over time this will lessen. Please contact your supplier if you experience this, as mentioned it is not a common occurrence.
6. Please read and follow the steps and guidelines in the document to get the best out of your new Modern deck and to maintain your 25 year warranty, if unsure about any of the details attached please call your supplier to answer any questions you have prior to installation.



WPC Batten



Connector clip



Starter Clip



Decking board



Nosing board



Fascia

Installation Guideline

Safety and Tools – It's the responsibility of the user/installer to follow general safety procedures when using all types of power tools and equipment required in building decks, also please make sure you research where your underground pipes and cables may be located before digging.

WPC decking is a heavy product, care must be taken when lifting and handling the product.

Standard wood working tools are ok to use when working with WPC decking, its best to use carbide tip saw blades with 60+ teeth for the best results in cutting the boards to length.

Sub frame - The sub frame must be level, straight and square to get the best performance from your Modern Deck. Please allow a 4mm fall per meter to allow for the water to run away.

Modern Deck should not be fixed to a solid surface like concrete, tiles etc. and should only be installed on Modern Deck WPC battens, Timber or Steel with a minimum ground clearance of 50mm if over concrete with good drainage and 300mm if over soil to allow for good ventilation for airflow.

Modern Deck 140x22 boards can span 450mm c/c joist spacing (Residential) but we recommend 400mm c/c for a more stable deck in areas that have direct sunlight on them, and 350mm C/C joists for commercial applications. Please refer to spacing specifications at end of this document.

You must install double joists under all butt joints for extra support allowing for excess expansion/contraction.

When doing so leave the double joists or battens 30mm apart and allow 10-15mm overhang of the decking boards where the butt joint is.

We don't suggest trying to pre-determine the finish size of the last board before you start fixing down the boards as manufacturing tolerances and spacing between boards may vary a little so it's best to trim the final board or trim the lengths of joists to suit a full width board once you get to final board.



Double joist under butt joints

Starting and finishing - If the starter board or end boards are parallel to a wall allow a 5mm space from the wall to the first board. If there is a wall at the end of the direction the boards are running allow a 10mm gap for expansion and contraction clearances. The starter board should be installed with the starter clips supplied and if you have an obstruction not allowing the fixings to be used we recommend fixing the board down with Soudal T-Rex adhesive used as per manufacturer's instructions. Ripping the starter or end board to the required width to fit to the size of the deck is ok and if visually exposed it can be covered with the fascia board. Use the stainless steel connector clips supplied with your order to fix down the centre boards throughout the deck and this is done by placing the clip into place with the first board and sliding the next board into the other side of the clip before screwing into place. Many professionals will slide up to 6+ boards together at a time

then using a clamp to pull the boards together maintaining a uniform gap between each board before screwing the fixing screws into place to secure the boards down.



Starter Clip

End board, Nosing board and Fascia – If using a trimmed down decking board as your end board you will need to fix it down by top screwing 25mm in from outside edge of board and spacing the screws no more than 450mm apart. Please remember to pre-drill first allowing for a bit of clearance for the screw.

If you're using the Modern Deck nosing board as a finishing board please use the Starter/End clip to fix into place.

Modern Deck Fascia boards are 140x15mm and can be fixed to the sub frame with 2 screws spaced no more than 450mm apart and 25mm in from the edge of the board. Do not fix screws into the edge of the decking board.



Fascia Board



Nosing Board

Breaker boards - Due to the expansion and contraction (length ways) of WPC decking with changes in temperature throughout the day we recommend using a breaker board for decks longer than 5.4m that require butt joints, this will avoid having uneven butt joints randomly spread across your deck. For example if your deck was 7.5m long divide the deck into 3 equally spaced areas of 2.5m each with a breaker board between each area. Running a board 5.4m with a butt joint at the end will require a 7mm space between any butt joints at 20°C. You will need to fix extra joists to support the breaker board and additional joists to support the decking boards.

Starter clips can be used to fix the breaker board into place or it can be glued down to the joists using Soudal T-Rex with a continuous bead of adhesive applied. If necessary it can also be face screwed into place if you have a timber frame only. Never face screw into steel frames. If your breaker board needs to be longer than 5.4m we recommend cutting it to maximum of 2.7m long lengths and allow a 3mm gap at the butt joints for expansion. You will need to allow a 5mm gap between the end of the decking board and the breaker board for expansion.



Breaker Board

Correct gap to leave for butt joints per mm between boards

Temperature °C	2.7m	3.6m	4.2m	4.8m	5.4m
10°C	4.2mm	5.7mm	6.5mm	7.7mm	8.5mm
15°C	3.6mm	5.0mm	5.8mm	6.6mm	7.5mm
20°C	3.1mm	4.3mm	5.0mm	5.7mm	6.5mm
25°C	2.5mm	3.5mm	4.2mm	4.6mm	5.4mm
30°C	2.0mm	2.8mm	3.4mm	3.6mm	4.2mm
35°C	1.5mm	2.1mm	2.5mm	2.6mm	3.0mm
40°C	1.0mm	1.5mm	1.8mm	1.7mm	2.0mm

If your deck has both ends open with no obstructions you can half the above amount.

Modern Deck Fixing Specifications

Maximum joist spacing centre to centre for boards laid at 90° (For other angles take 100mm off these distances)	Residential = 400mm - 450mm Commercial = 300mm - 350mm
Minimum spacing between boards (side to side) also if there's a wall parallel to boards.	= 5mm
Minimum spacing at end of boards where there's a wall	= 10mm
Minimum spaces for butt joints refer to table above.	
Minimum spacing around posts and other objects	= 5mm
Maximum overhang for board past a joist (length only widths must be fully supported)	= 40mm
Minimum ground clearance over concrete with good fall for water run off	= 50mm
Minimum ground clearance over soil	= 300mm
Minimum spacing for face fixing boards from edge of board	= 25mm
Maximum space between joist centre to centre for stair stringers	= 300mm

Please use the above tables as a guide only and consider the environment that the deck is being installed in to better adjust these measurements, for example a deck that is facing a north west direction that receives a large amount of sun would be better constructed with joists installed slightly closer and a deck that is facing south east or has a roof covering it will not expand and contract as much and the maximum and minimum spaces and clearances will be suitable.

