
Whiteriver
composite for living
COMPOSITE DECKING & CLADDING



NEVADA SOLID ANTHRAZIT 140 X 25 X 3600MM

Why Whiteriver Composite Decking

Composite Decking is for the home-owner who wants a decking product with a natural look, uniform colouration and will not need any annual oil treatment like conventional wood decks. Composite Decking has a long lifespan, which saves time and money, now and in the future.



ENVIRONMENTALLY FRIENDLY	NATURAL FEEL	DURABILITY	BAREFOOT FRIENDLY	INSECT RESISTANT	WEATHER RESISTANT	LOW MAINTENANCE
Made from recycled materials.	*Looks and feels like natural wood.*	*Does not rot or crack. Looks like new for years.*	*Splinter free and barefoot comfort to the touch.*	*Does not attract insects.*	*Suitable from -40°C to 60°C.*	*No annual oiling or painting required.*

What is Composite Decking

Whiteriver Composite Decking is made using 60% recycled wood, 30% high density polyethylene and 10% additives and pigments. The unique mixture creates a revolutionary composite of improved, user friendly material that outperforms traditional wood and plastic decks.

Strong and durable, Whiteriver Composite Decking looks and feels just like natural wood. The unique formula provides long lasting composite timber decking that is environmentally friendly, easy to install and requires less maintenance compared with traditional timber and comes with a 10 year (Portland) and 25 year (UltraShield) limited warranty.

Whiteriver Composite Decking was developed to meet the exceptionally high standard required for outdoor living today. Our decking is ideal for the construction of commercial and domestic decks, marinas, board walks and swimming pool surrounds as well as many other uses.

Installation is simple using a handy clip system that creates a smooth even look to the deck. This system means that you do not have to use unsightly screws or nails and the board spacing is already worked out.

COVER IMAGE - ULTRASHIELD ANTIQUE 138 X 23 X 3600MM

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Composite Decking & the Environment

At Whiteriver, we believe that sustainability through the use of recycled materials is essential for the future of our environment. When you buy our composite decking you can feel confident that your purchase has been kind to the environment.

Our decking helps the environment by using recycled material and also comes with a comprehensive warranty. Our product outperforms the competition with unrivalled quality and appearance, making your outdoor space the envy of all who have the pleasure of using it.

The growing public concern for environmental sustainability is at the heart of the manufacturing process. You can make your home greener with our composite products as they are made from a high level of different recycled materials. This contributes to the environmental protection portion of sustainability, as it allows the use of resources from the environment instead of options that destroy the environment. As well as using recycled materials, the process further reduces carbon footprint through continuous improvement, efficiency and energy conservation.

Environmentally Friendly
Total vertical integration of the manufacturing process allows complete control for a consistent quality and finish.

Our composite decking is made from:

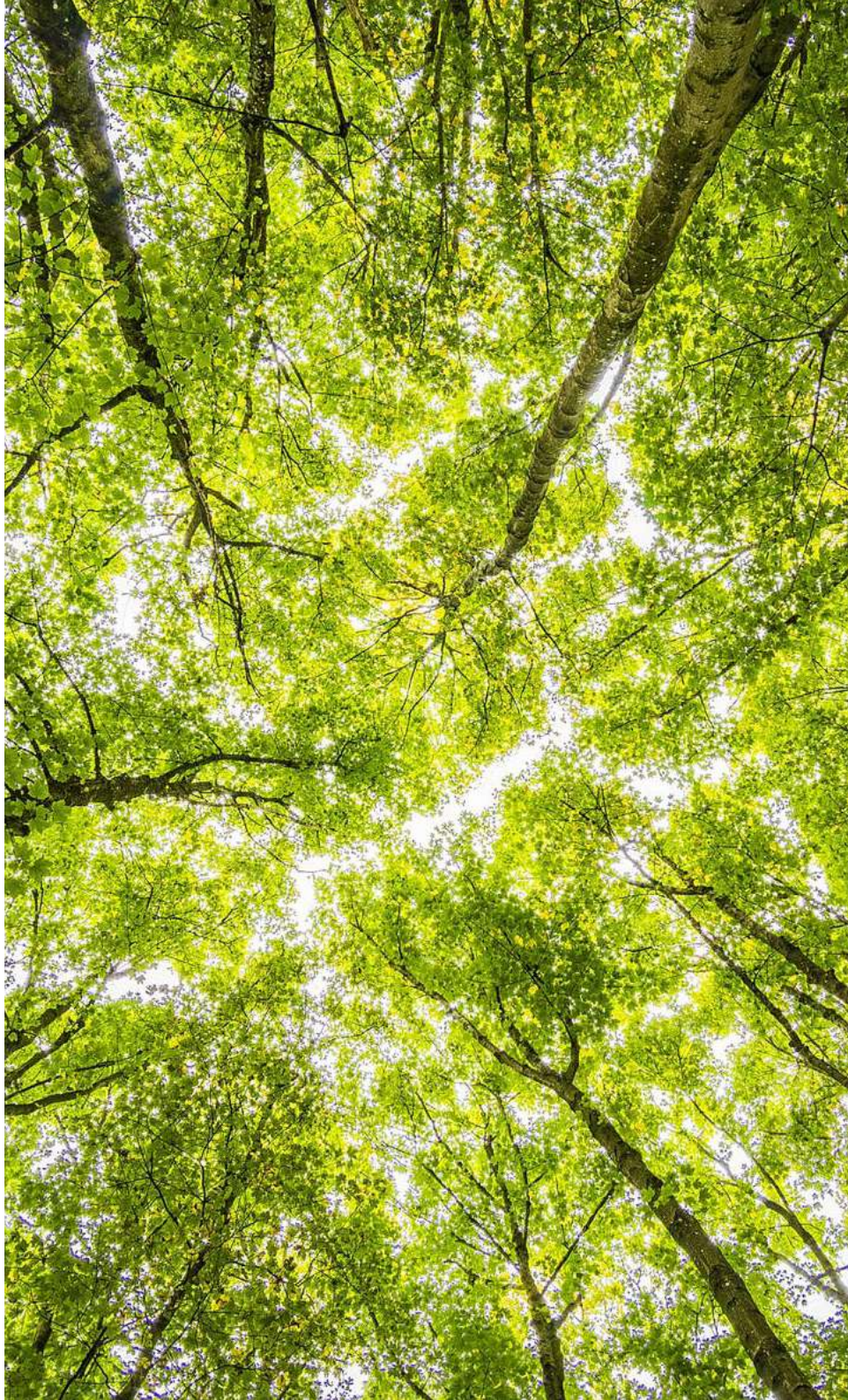
- 60% wood fibre, most of which is sourced as recyclable waste from other industries.
- 30% HDPE (high density polyethylene) which includes recycled plastic. Every length of our composite decking contains the equivalent of 170 recycled 500ml plastic bottles.
- 10% additives / pigments.

PORTLAND
10 YEAR LIMITED WARRANTY

According to Whiteriver terms
See wrg.ie for full details.

ULTRASHIELD
25 YEAR LIMITED WARRANTY

According to Whiteriver terms
See wrg.ie for full details.



UltraShield® Naturale™ & Textured

A true game changer in composite decking.

In 2010, our manufacturing partners began a project to design and formulate the most durable and attractive composite deck board in the industry.

A few years of engineering and countless hours of field-testing has yielded a product of unmatched performance and beauty. UltraShield combines the proven strength of high density polyethylene plastic and wood fibre with an outer shell of polymer that completely encapsulates the board in an impermeable layer of protection that provides scratch, stain and fade resistance.

WHY "CAPPING"?
Making the board capped 360 degrees gives the board maximum protection against: mould/mildew, stains, fading, cracking, cupping and swelling.

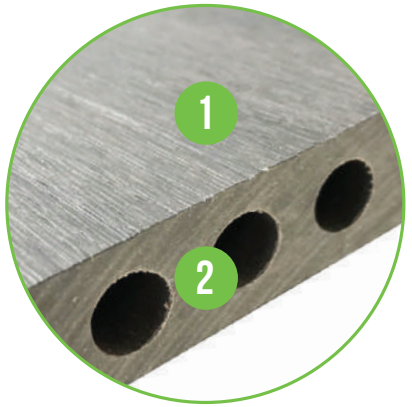
Capping 360 degrees provides complete protection all around the board and protects it from UV, water, insects and any other mould/mildew from attacking the core.

ULTRASHIELD
25 **YEAR LIMITED WARRANTY**

According to Whiteriver terms
See wrg.ie for full details.

1. CO-EXTRUDED CAP
UltraShield is a capped composite, which means it has an advanced premium shield encasing ALL four sides around its inner core.
The shield and core are extruded together under a very high temperature mould simultaneously, so there are no adhesives or chemicals that are harmful to the environment.

2. COMPOSITE CORE
The core is made from carefully selected recycled material and highly dense recycled hardwood and softwood fibre that allow for greater strength and durability and best of all it's 100% recyclable.



PORTLAND Whiteriver



INTRODUCING PORTLAND

PORTLAND MONTANA CHARCOAL

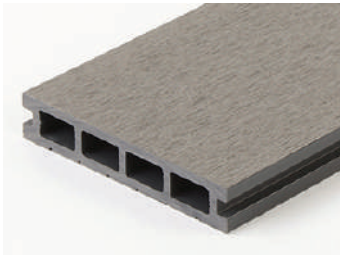
Whiteriver MONTANA

PORTLAND
10 YEAR LIMITED WARRANTY
Acc. to Whiteriver terms - see wrg.ie for full details.

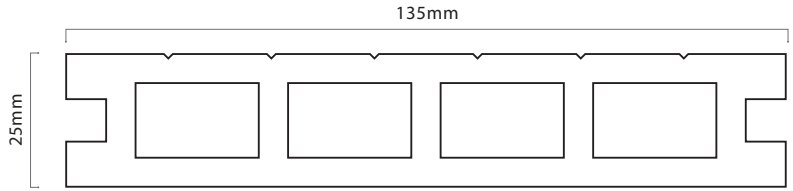
PORTLAND MONTANA

Our Montana composite decking takes its name from the American "Big Sky Country" of the same name. It comes with a hollow construction and with the option of a reversible smooth or grooved surface. Our most popular design is available in four colours and comes with matching railings and accessories.*





Reversible Boards



FRONT ELEVATION

Board Dimensions: **135x25x3600mm** Board Coverage: **0.508m² (1m² = 1.97 boards)**


Charcoal Grooved - Side 1


Soft Grey Grooved - Side 1


Anthrazit Grooved - Side 1


Fired Earth Grooved - Side 1


Charcoal Smooth - Side 2


Soft Grey Smooth - Side 2


Anthrazit Smooth - Side 2


Fired Earth Smooth - Side 2

- Hidden Fixing System
- Finishing Trims Available
- Matching Posts & Railings *Excluding Charcoal

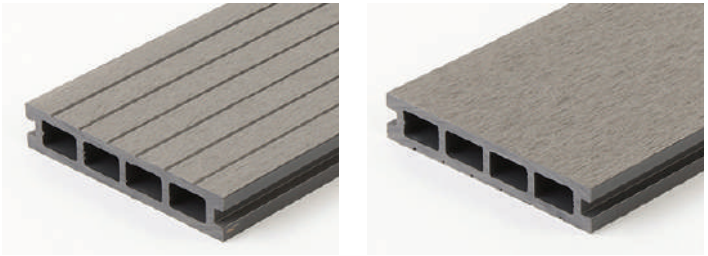


MONTANA FIRED EARTH 135 X 25 X 3600MM

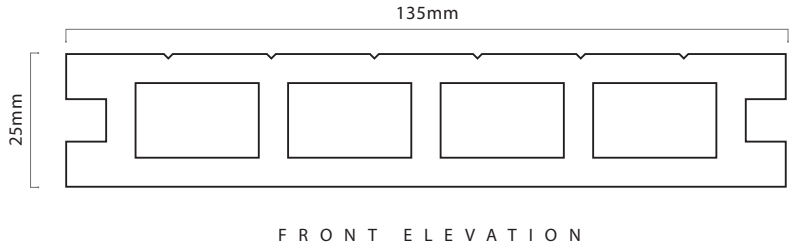
PORTLAND
10 YEAR LIMITED WARRANTY
Acc. to Whiteriver terms - see wrg.ie for full details.

PORTLAND MONTANA
FIRE RATED - BFL-S1

Our Fired Rated Portland Montana achieves a fire rating of BFL-S1 (EN 13501-1). This rating is higher than standard composite decking and provides better performance where there is a requirement to achieve a fire rating of BFL-S1. This rating may be requested for public areas. Our portland decking is also CE Certified for fire.



Reversible Boards



FRONT ELEVATION

Board Dimensions: **135x25x3600mm** Board Coverage: **0.508m² (1m² = 1.97 boards)**

Whiteriver MONTANA


Soft Grey Grooved - Side 1

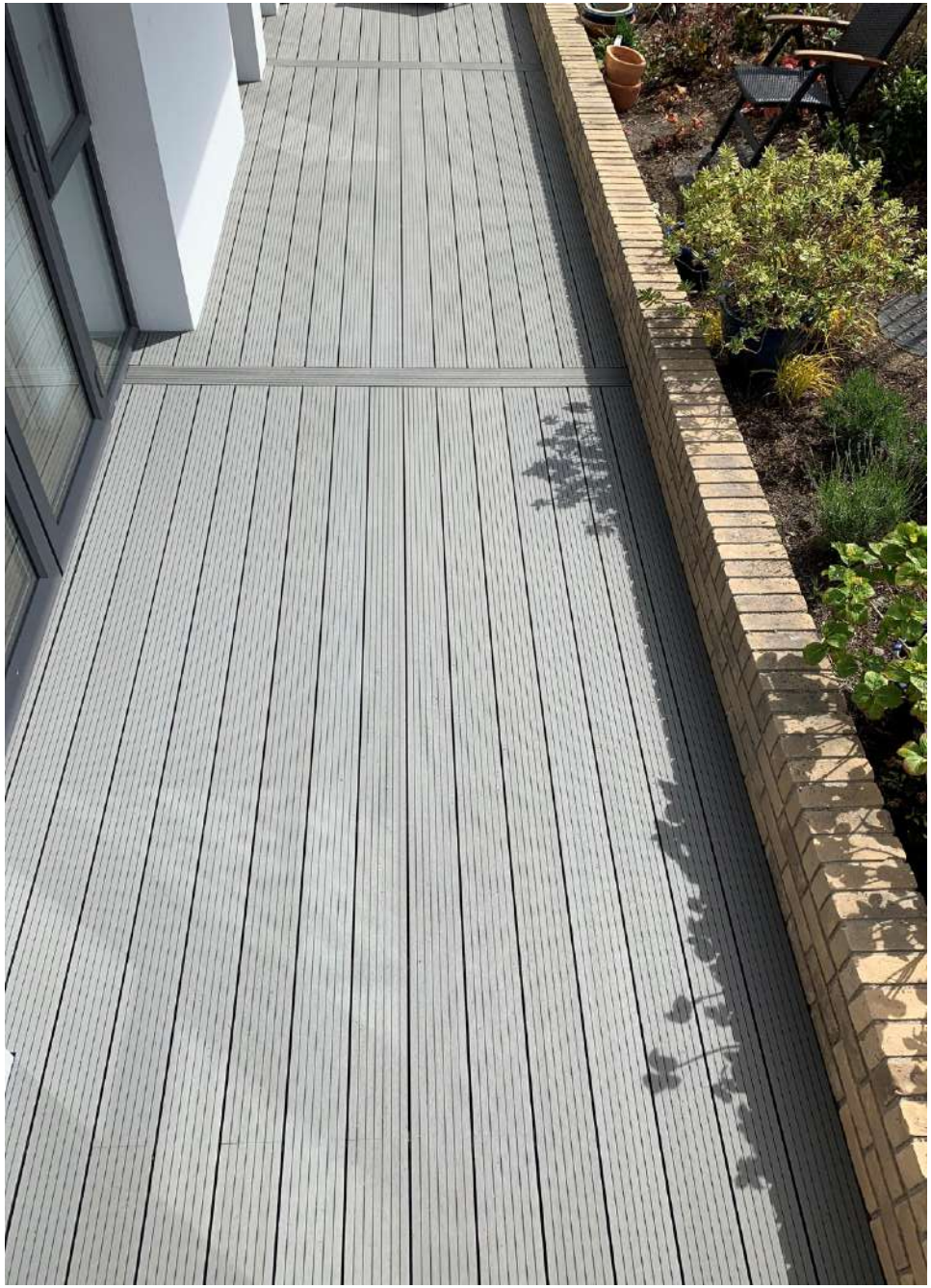

Anthrazit Grooved - Side 1

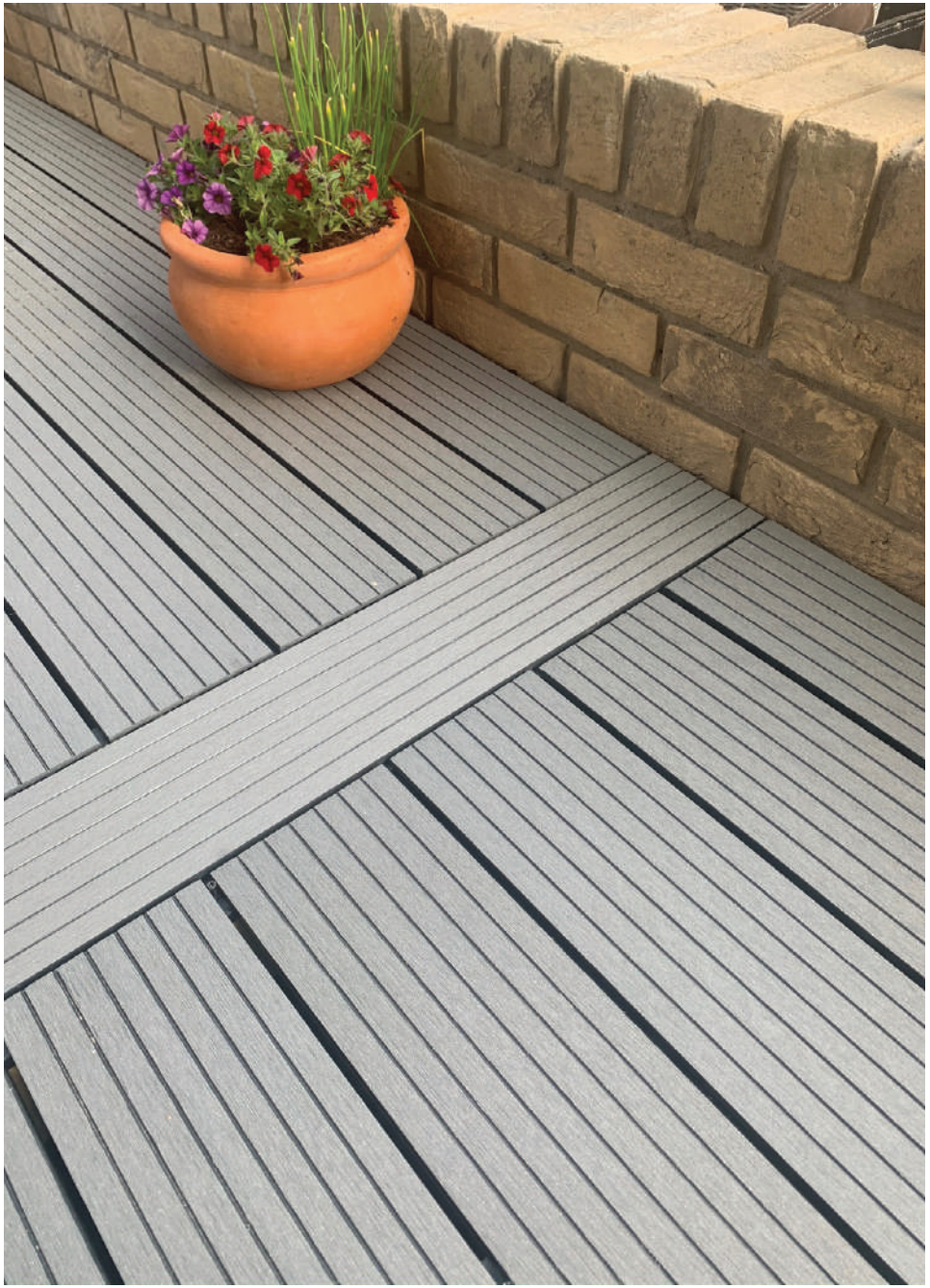

Soft Grey Smooth - Side 2


Anthrazit Smooth - Side 2

- Hidden Fixing System
- Fire Rated BFL S1

FIRE RATED





MONTANA SOFT GREY 135 X 25 X 3600MM



MONTANA FIRED EARTH 135 X 25 X 3600MM



MONTANA SOFT GREY 135 X 25 X 3600MM - STEPS DONE IN MONTANA CHARCOAL



MONTANA FIRED EARTH 135 X 25 X 3600MM



ARIZONA SOFT GREY 146 x 23 x 3600mm

Whiteriver ARIZONA

PORTLAND
10 YEAR LIMITED WARRANTY

Acc. to Whiteriver terms - see wrg.ie for full details.

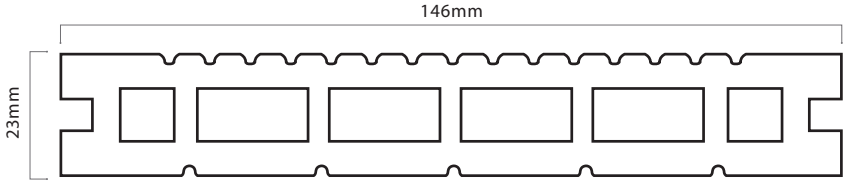
PORTLAND ARIZONA

Our Arizona decking inherits its name from the popular American State. Home of the Grand Canyon, a mile deep chasm carved by the Colorado River. This reversible board is both beautiful and resilient and allows you to choose between a ribbed or grooved surface making it the quintessential deck of choice for the connoisseur.



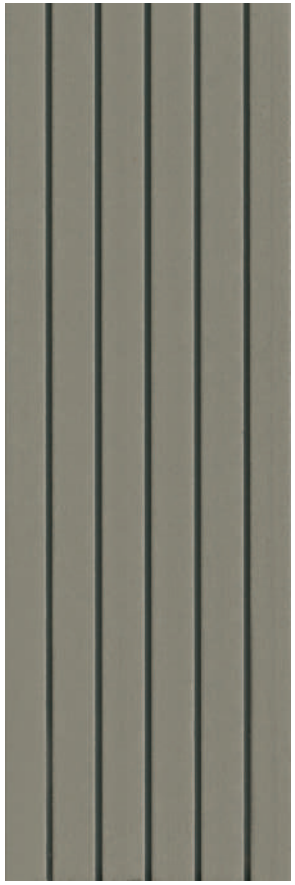


Reversible Board

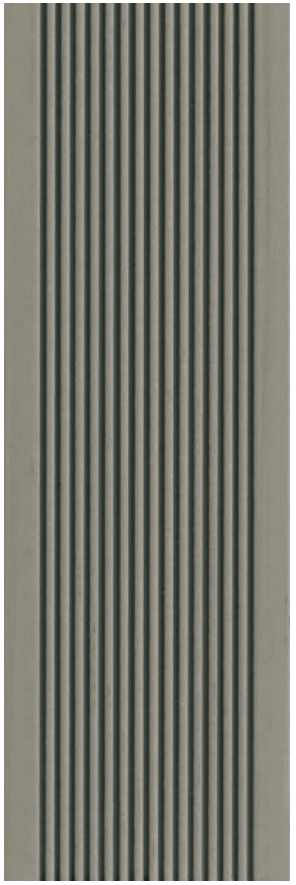


FRONT ELEVATION

Board Dimensions: **146x23x3600mm** Board Coverage: **0.544m²** (1m² = 1.84 boards)



Soft Grey Grooved - Side 1



Soft Grey Ribbed - Side 2

- Hidden Fixing System
- Finishing Trims Available *excludes stair treads
- Matching Posts & Railings



NEVADA SOLID SOFT GREY 140 X 25 X 3600MM

Whiteriver NEVADA

PORTLAND
10 YEAR LIMITED WARRANTY
Acc. to Whiteriver terms - see wrg.ie for full details.

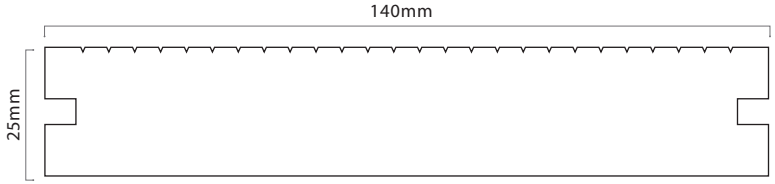
PORTLAND NEVADA SOLID

Known as the "Battle Born State", Nevada Composite Decking deservedly gets its name from this beautiful, awe inspiring and diverse State.
Tough and durable enough to withstand all types of harsh weather.
Alluring texture with a contrasting grooved side or choice of a smooth sleek side.





Reversible Boards

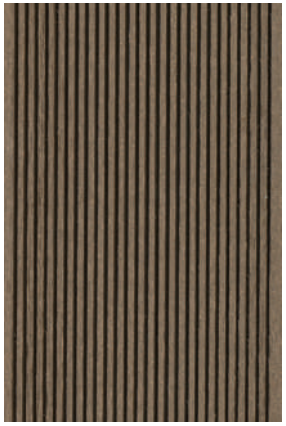


FRONT ELEVATION

Board Dimensions: **140x25x3600mm** Board Coverage: **0.522m²** (1m² = 1.92 boards)



Soft Grey Ribbed - Side 1



Anthrazit Ribbed - Side 1



Soft Grey Smooth - Side 2



Anthrazit Smooth - Side 2

- Hidden Fixing System
- Finishing Trims Available
- Matching Posts & Railings



NEVADA SOLID ANTHRAZIT 140 X 25 X 3600MM



NEVADA SOLID SOFT GREY 140 X 25 X 3600MM

FINISHING TOUCHES

Deck fascia boards provide the perfect finishing touch and create a smooth, streamlined look for your composite wood deck. Fascia boards create a band of wood bordering the deck just below the surface line to hide the joists underneath and elevate the overall appearance of the deck.

Naturally, for the most seamless, aesthetically pleasing look, as well as for durability and low-maintenance, you will want your fascia boards to be made of the same composite wood material as the rest of your deck, which is why Whiteriver is happy to offer fascia boards among our line of quality products.



NEVADA ANTHRAZIT WITH MATCHING POSTS & RAILS 140 X 25 X 3600MM

Note: Portland hand rail is only suitable for installation to a maximum of 600mm above ground level.

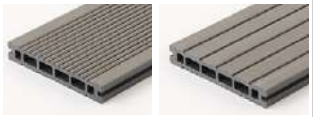
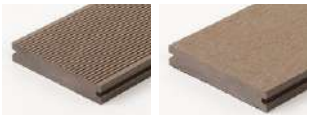
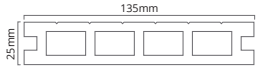
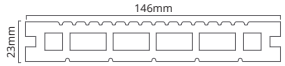
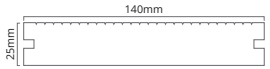


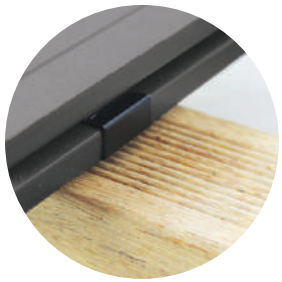
MONTANA SOFT GREY WITH MATCHING STAIR TREAD 135 X 25 X 3600MM



MONTANA SOFT GREY WITH MATCHING STAIR TREAD 135 X 25 X 3600MM

PORTLAND DECK BOARDS

Montana	Arizona	Nevada
		
		
135 x 25 x 3600mm	146 x 23 x 3600mm	140 x 25 x 3600mm



START/END CLIP



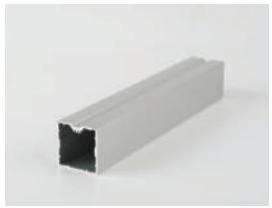
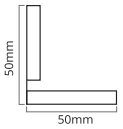
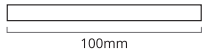
CLIP & SCREW



LOCKING CLIP

One locking clip to be installed at the centre point of each board to control even expansion and contraction along the length of the board. The looking clip has teeth on one side to catch the board.

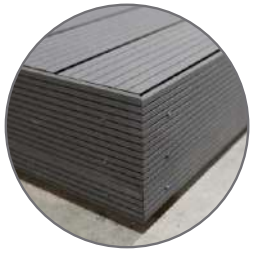
JOIST OPTIONS

Composite Joist	Aluminium Joist	Aluminium Double Joist	Joist Support	Joist Corner Bracket	Joist Joining Bracket
Generally for use on balconies where structural height is not possible. Ventilation and drainage need to be carefully considered for balcony installations. This joist is not load bearing. "MUST BE PREDRILLED"	Lightweight, strong and durable.	This joist provides support and drainage channel where two board ends meet.	Stainless steel support for aluminium joists.	Stainless steel bracket for reinforcing corner joints on aluminium joist. **Pack of 4 with Tek screws**	Stainless steel bracket for joining aluminium joists. **Pack of 4 with Tek screws**
					
			Stainless Steel 362mm for 400mm centres with 38mm joist		
40 x 25 x 3000mm	38 x 38 x 3000mm	75 x 38 x 3000mm	362mm	50 x 50mm	100 x 25mm

Hardwood & Aluminium joists can be used with pedestals for raised decks - see page 54. *When planning your deck it is very important to consider ventilation and drainage under your deck.

FIXING COMPONENTS

Installation Kit Timber Joist	**Start/End Clip Timber Joist**	**Installation Kit Steel & Aluminium Joist**	**Start/End Clip Steel & Aluminium Joist**
Secret fixings for securing boards to joists.	For securing first and last rows.	Contains self tapping screws.	Contains self tapping screws.
			
Includes 50 Clips & Screws and 8 Locking Clips (Covers 2.5m²)	25 per pack for first & last row	Includes 50 Clips & Screws and 8 Locking Clips (Covers 2.5m²)	25 per pack for first & last row



FASCIA BOARD



STAIR TREAD

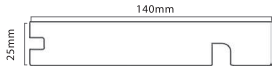
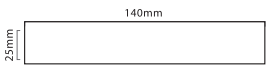
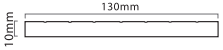
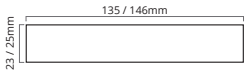


INSTALLATION KIT



STAIR TREAD

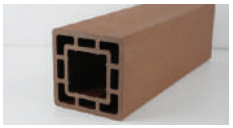
PORTLAND TRIM OPTIONS

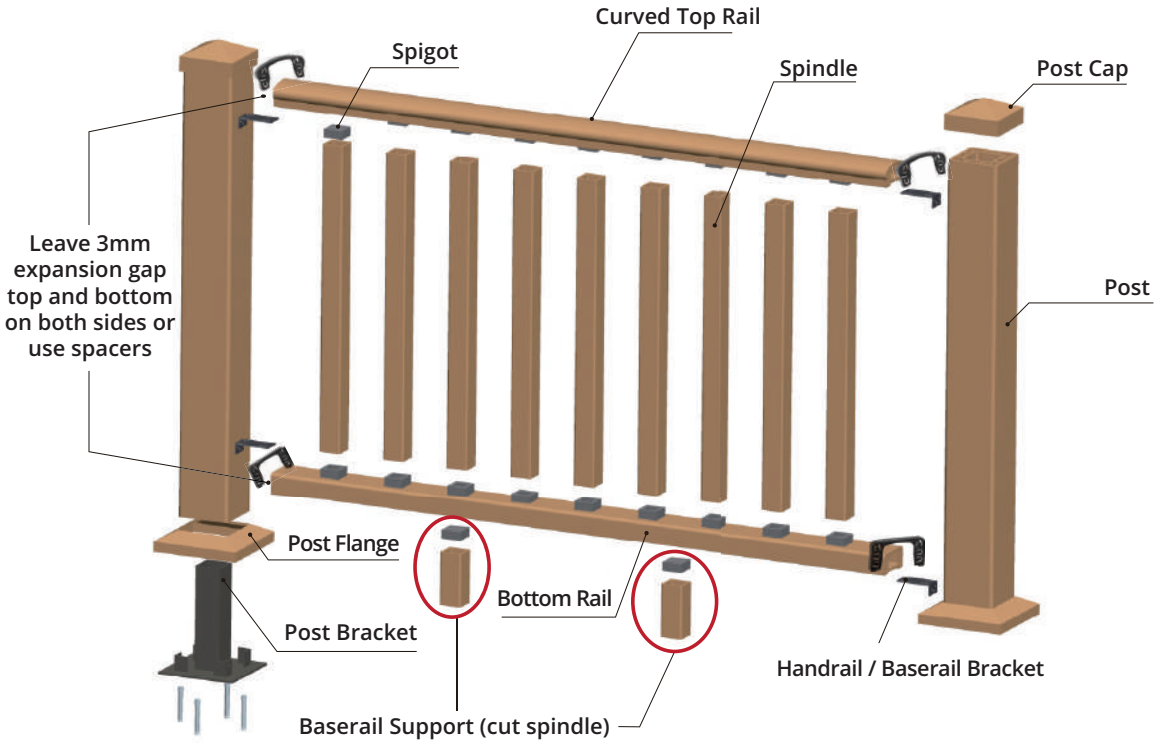
Stair Tread	**Fascia Solid Plank**	**Fascia Solid Plank**	**Corner Wrap**	**End Pieces**
Smooth Finish *Suitable for Montana & Nevada profiles only. Available in Soft Grey, Anthrazit, Fired Earth and Charcoal.**	**Available in Soft Grey, Anthrazit, Fired Earth and Charcoal.**	**Available in Fired Earth, Anthrazit, Soft Grey and Charcoal.**	**Available in Soft Grey, Anthrazit, Fired Earth and Charcoal.**	**Montana & Arizona**
Professional finishing edge board with concealed fixing ideal for steps and finishing deck perimeter.	Smooth board for a simple clean finish to hide structural framework.	Smooth on one side and ribbed on the other for a simple clean finish to hide structural framework.	Finishing trim for corners and edges - we do not recommend these to be use for step edges. Corner wrap should be predrilled and fixed to the substructure - not the decking.	Used to blank off exposed board ends. Secure with outdoor silicone.
				
				
140 x 25 x 3600mm	140 x 25 x 3600mm	130 x 10 x 3600mm	40 x 40 x 3600mm	135 x 25mm (Montana) 146 x 23mm (Arizona)

Note: It is very important to provide ventilation to enter the underside of your deck when finishing off side trims.

PORTLAND RAIL COMPONENTS

Available in Soft Grey, Anthrazit & Fired Earth.

CURVED HANDRAIL **Curved Profile** **100 x 50 x 1800mm**	
RECTANGULAR BASERAIL / HANDRAIL **Square Profile 90 x 45 x 1800mm** Can also be used as contemporary handrail.	
SPINDLE **Including Spigot** **& Screws 50 x 50 x 900mm**	
HANDRAIL / BASERAIL BRACKET **10 Per Pack** Secures rails to posts.	
SQUARE POST CAP	
POST **120 x 120 x 1200/2400mm**	
POST FLANGE **Hides Post Bracket**	
POST SUPPORT BRACKET **Must be fixed to substructure** **(Screws for fixing to** **sub-construction not included)**	



These 2 supports are vital to give support to each section of rail and must be in place as shown.

NEW CURVED HANDRAIL **Spacers supplied free of charge with handrail**	
NEW SQUARE HANDRAIL / BASERAIL **Spacers supplied free of charge with handrail** Allows for natural expansion & contraction	

Note: Portland hand rail is only suitable for installation to a maximum of 600mm above ground level.

POST & RAILINGS INSTALLATION

NOTE: IT IS IMPORTANT THAT COMPOSITE MATERIAL IS PRE-DRILLED PRIOR TO FIXING SCREWS INTO IT.

Step 1

As the diagram 2.1 below shows, firstly use expansion bolts to fix the Post Bracket in the right position of measured posts on the concrete ground or in case of timber joists, use coach screws suitable for outdoor use.

THE POST BRACKET SHOULD BE FIXED TO THE SUB-CONSTRUCTION, NOT THE DECKING.

We recommend that the spacing between two posts should be not more than 1800mm; this distance is based on the specific spacing between the spindles.

The standard spacing between spindles is 100mm. Insert the posts into the Post Bracket, then using fixing screws, fix the posts through the holes of the angle iron on the Post Bracket.

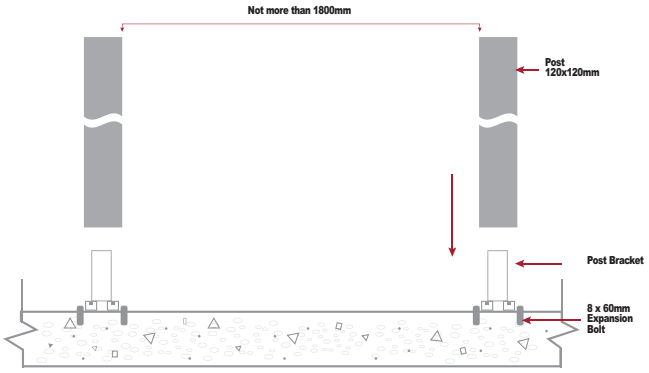


DIAGRAM 2.1

Step 2

After fixing the posts, insert the post flange to the bottom of the posts; then mark the position for the top and bottom handrail on all posts. Fix the handrail bracket on the marked position on the post, just as diagram 2.2 below shows. Its important to leave 3mm expansion or use spacers where rail meets the post. We recommend that the spacing between two posts should not be more than 1800mm.

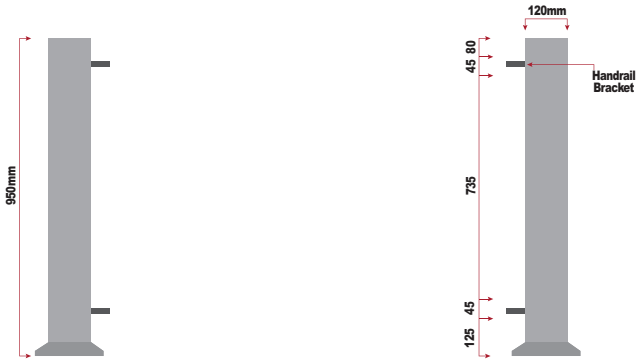
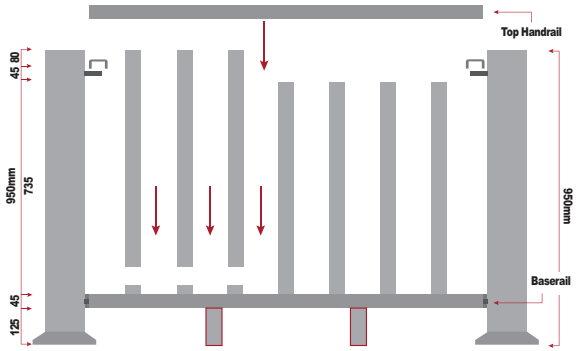


DIAGRAM 2.2

Step 3

As diagram 2.3 below shows: fix the spindle spigot on both the top and bottom handrail - the fixing spacing is based on the standard spindle spacing of 100mm. Install and fix the top and bottom handrail to the handrail bracket - base rail spacers should be interested between post and rail to allow for natural expansion & contraction. Use external grade silicone adhesive in the spigot to fix securely and avoid any spindle movement.



Step 4

Please install a minimum of 2 pieces of spindles below the bottom baserail as seen in the installation of spindles in diagram 2.4. These pieces must be spaced evenly to support the overall handrail section and avoid warping. This is very important.

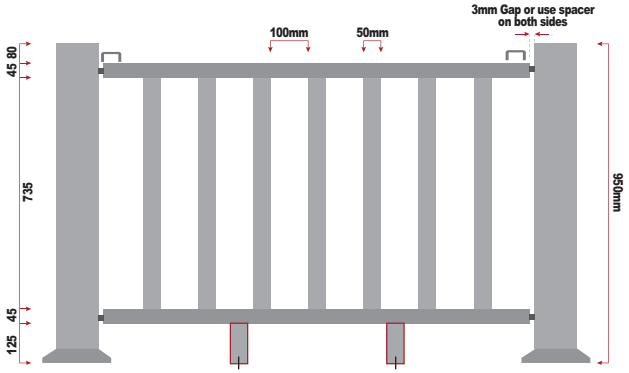
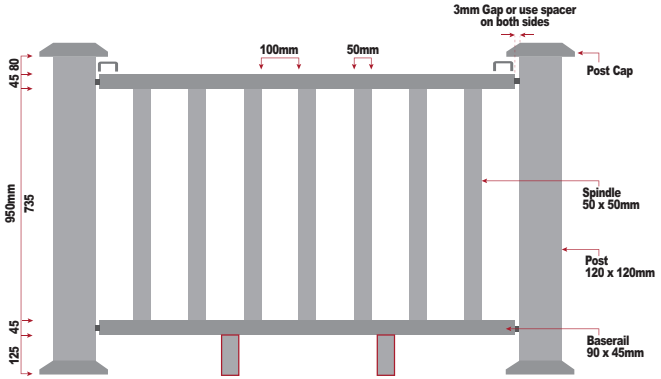


DIAGRAM 2.4

These supports are vital to the structure of each section.

Step 5

Install the post cap on top of the posts. This is to prevent water accumulating within. Now you are finished the installation of the post and handrail system. Please consult the finished drawing of post and handrail system as shown in diagram 2.5 below.



Note: Portland hand rail is only suitable for installation to a maximum of 600mm above ground level.


ULTRASHIELD
Whiteriver
INTRODUCING
UltraShield®
Naturale™ Textured



1. Unique decorative capping protects all sides.
2. Strong core made from 90% recycled materials.

WHY UltraShield

ULTRASHIELD
25 YEAR LIMITED WARRANTY
Acc. to Whiteriver terms - see wrg.ie for full details.

UltraShield is the new generation in composite decking. The decking is a capped wood plastic composite, which means it has an advanced premium shield encasing on all four sides around its inner core. This gives you a deck that has a protective covering, which gives each board an advanced blend of rich colour variation and high definition wood grain details. The shield and core are extruded together under a very high temperature mould simultaneously, so there are no adhesives or chemicals that are harmful to the environment.

The core is made from carefully selected recycled material and highly dense recycled hardwood and softwood fibres that allow for greater strength and durability, and best of all it is made from 90% recycled material.
The shield uses an advanced engineering polymer to create a formulation which gives the boards ULTRA PROTECTION against Stains, Mildew, Mould and Splitting.

For more information on Whiteriver UltraShield please visit www.wrg.ie

So for the ultimate in a high performance composite deck Whiteriver UltraShield is the answer.

A few **good** reasons to choose
Whiteriver UltraShield

MADE FROM 90% RECYCLED MATERIALS

NATURAL TIMBER LOOK & FEEL

EASY TO INSTALL



ANTIQUE 138 X 23 X 3600MM

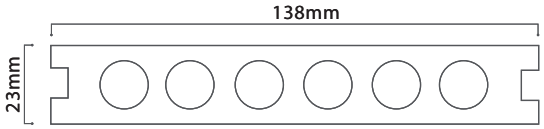
UltraShield® Naturale™

Whiteriver UltraShield decking is a high performance, eco friendly alternative which offers the warmth and appeal of natural hardwoods in 5 deluxe colours: Silver Grey, Teak, Antique, Walnut and Cedar. Whiteriver UltraShield will not splinter or crack, due to its protective shield, making your deck safer for bare feet, small children and pets.





Reversible Boards



Board Dimensions: **138x23x3600mm** Board Coverage: **0.512m²** ($1m^2 = 1.95$ boards)



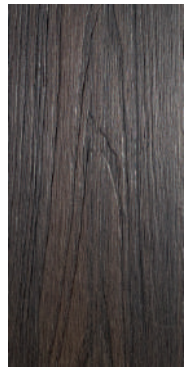
Silver Grey Grained
Side 1



Teak Grained
Side 1



Antique Grained
Side 1



Walnut Grained
Side 1



Cedar Grained
Side 1



Silver Grey Smooth
Side 2



Teak Smooth
Side 2



Antique Smooth
Side 2



Walnut Smooth
Side 2



Cedar Smooth
Side 2

Hidden Fixing System Finishing Trims Available 90% Recycled Material

Whiteriver UltraShield, is a true game changer in the composite decking industry.

Note: Due to the production process for Ultrashield decking board widths can vary slightly. Boards widths should be measured and matched accordingly



ANTIQUE 138 X 23 X 3600MM



ANTIQUE 138 X 23 X 3600MM



CEDAR 138 X 23 X 3600MM



TEAK 138 X 23 X 3600MM



WALNUT 138 X 23 X 3600MM



ANTIQUE 138 X 23 X 3600MM



ANTIQUE 138 X 23 X 3600MM



SILVER GREY 138 X 23 X 3600MM



CEDAR 138 X 23 X 3600MM



ANTIQUE 138 X 23 X 3600MM



ANTIQUE 138 X 23 X 3600MM



SILVER GREY 138 X 23 X 3600MM



SILVER GREY 138 X 23 X 3600MM



ANTIQUE 138 X 23 X 3600MM



WALNUT 138 X 23 X 3600MM



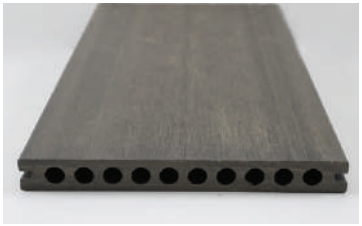
WALNUT 138 X 23 X 3600MM



ULTRASHIELD OLD MIST WIDE BOARD 210 X 23 X 3600MM

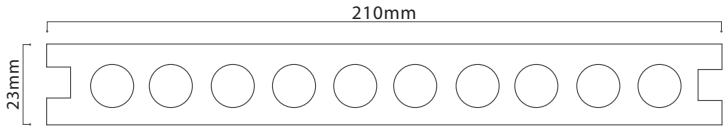
UltraShield® Naturale™ wide board

The UltraShield Naturale Wide Board encompasses all the high performance features of the standard width board with the added perception of an expansive deck. Available in two colours - Old Mist and Pebble Grey.





Reversible Boards



Board Dimensions: **210x23x3600mm** Board Coverage: **0.774m²** ($1m^2 = 1.29$ boards)



Old Mist - Grained Side 1



Pebble Grey - Grained Side 1



Old Mist - Smooth Side 2



Pebble Grey - Smooth Side 2

- Hidden Fixing System
- Finishing Trims Available
- 90% Recycled Material

Whiteriver UltraShield is a true game changer in the composite decking industry.

Note: Due to the production process for Ultrashield decking board widths can vary slightly. Boards widths should be measured and matched accordingly



ULTRASHIELD OLD MIST WIDE BOARD 210 X 23 X 3600MM



ULTRASHIELD OLD MIST WIDE BOARD 210 X 23 X 3600MM

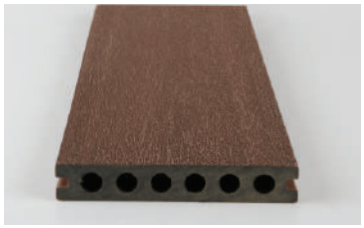


SAPELE GRAINED SIDE 138 X 23 X 3600MM

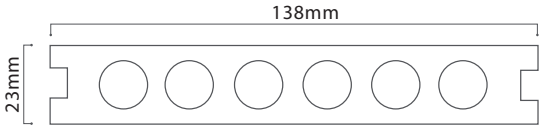
UltraShield® Textured

UltraShield Textured is the latest development in capped composite decking. The defined grain of its textured surface gives a real wood feel and touch while the reverse side of the board offers a smoother option which can be used in its entirety or as a contrasting feature. Choose from traditional warm Sapele or contemporary Graphite tone for a modern twist.





Reversible Boards



Board Dimensions: **138x23x3600mm** Board Coverage: **0.512m²** ($1m^2$ = 1.95 boards)



Sapele - Grained Side 1



Sapele - Smooth Side 2



Graphite - Grained Side 1



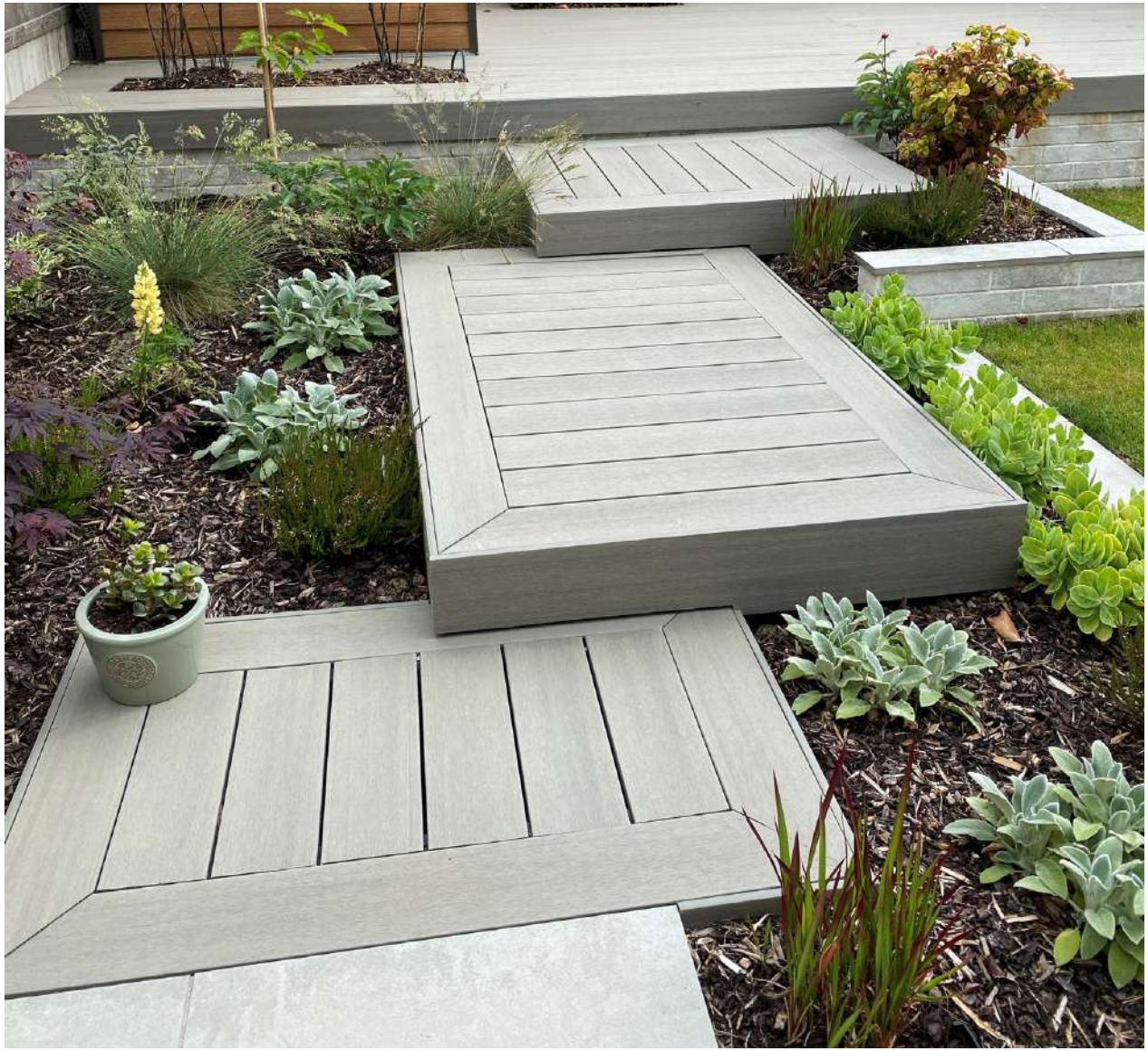
Graphite - Smooth Side 2

Hidden Fixing System Finishing Trims Available 90% Recycled Material

Whiteriver UltraShield, is a true game changer in the composite decking industry.

Note: Due to the production process for Ultrashield decking board widths can vary slightly. Boards widths should be measured and matched accordingly

FINISHING TOUCHES

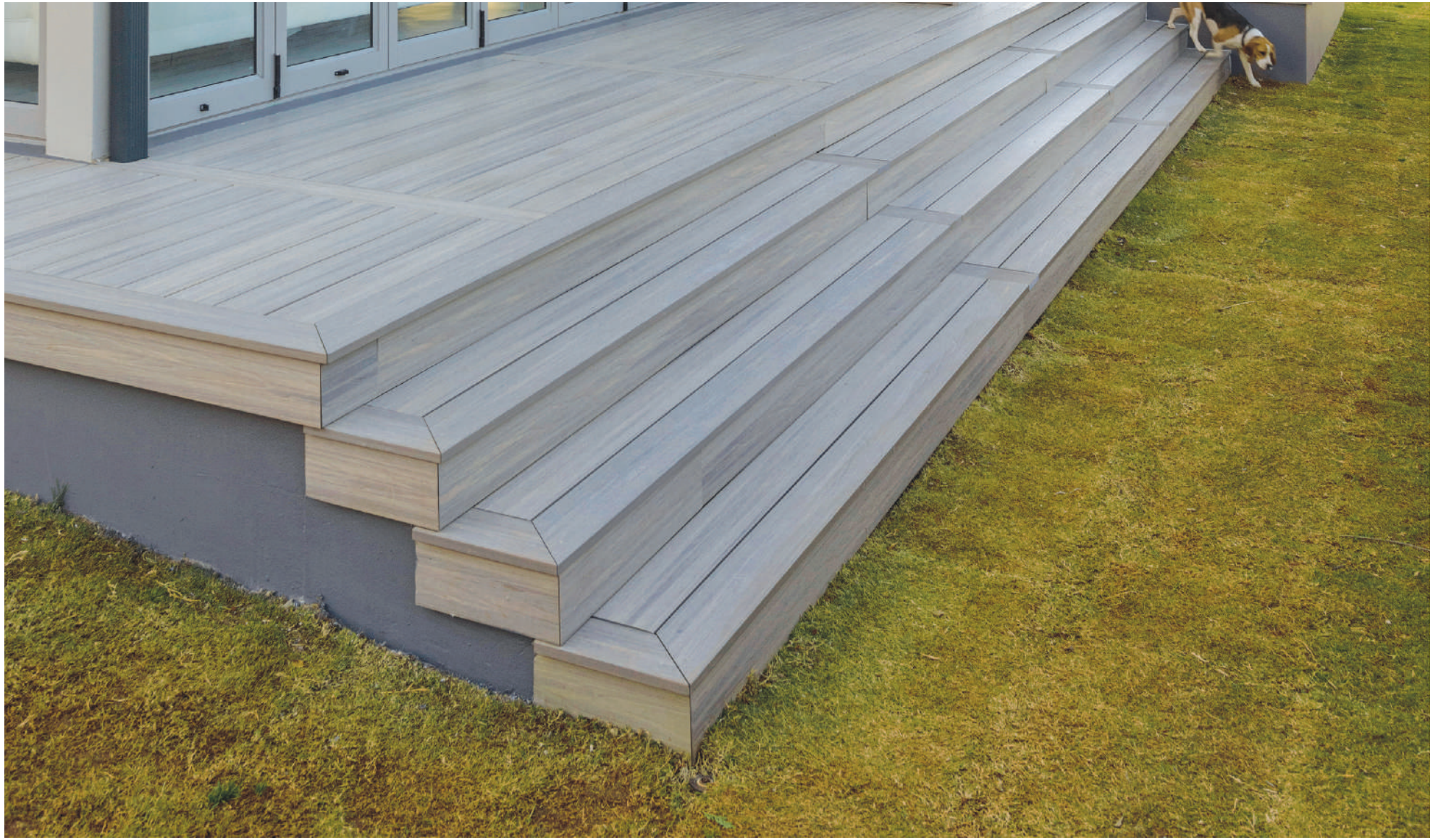




When planning your deck it is very important to consider ventilation and drainage under your deck.

ULTRASHIELD ANTIQUE FACIA BOARD 180 X 15 X 3600MM

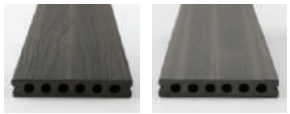
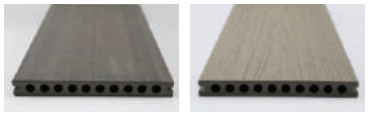
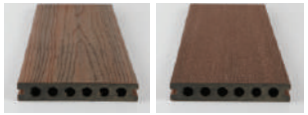
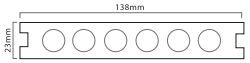
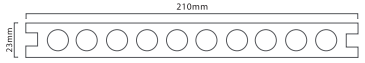
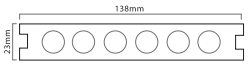
FINISHING TOUCHES

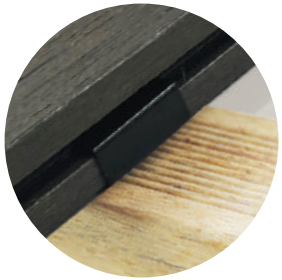


ULTRASHIELD SILVER GREY WITH MATCHING STAIR TREAD & FACIA BOARD 138 X 23 X 3600MM

When planning your deck it is very important to consider ventilation and drainage under your deck.

ULTRASHIELD DECK BOARDS

UltraShield® Naturale™	UltraShield® Naturale™ Wide board	UltraShield® Textured
		
		
138 x 23 x 3600mm	210 x 23 x 3600mm	138 x 23 x 3600mm



START/END CLIP



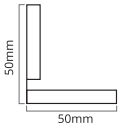
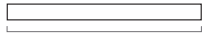
CLIP & SCREW



LOCKING CLIP

One locking clip to be installed at the centre point of each board to control even expansion and contraction along the length of the board. The locking clip has teeth on one side to catch the board.

JOIST OPTIONS

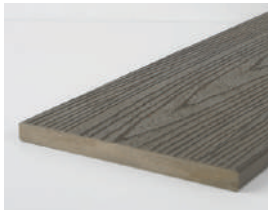
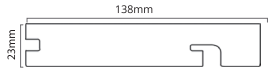
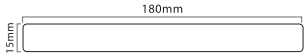
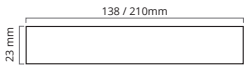
Composite Joist	**Aluminium Joist**	**Aluminium Double Joist**	**Joist Support**	**Joist Corner Bracket**	**Joist Joining Bracket**
Generally for use on balconies where structural height is not possible. Ventilation and drainage need to be carefully considered for balcony installations. This joist is not load bearing. "MUST BE PREDRILLED"	Lightweight, strong and durable.	This joist provides support and drainage channel where two board ends meet.	Stainless steel support for aluminium joists.	Stainless steel bracket for reinforcing corner joints on aluminium joist. Pack of 4 with Tek screws	Stainless steel bracket for joining aluminium joists. Pack of 4 with Tek screws
		NEW 			
			Stainless Steel 362mm for 400mm centres with 38mm joist		
40 x 25 x 3000mm	38 x 38 x 3000mm	75 x 38 x 3000mm	362mm	50 x 50mm	100 x 25mm

Hardwood & Aluminium joists can be used with pedestals for raised decks. *When planning your deck it is very important to consider ventilation and drainage under your deck.

FIXING COMPONENTS

Installation Kit Timber Joist	**Start/End Clip Timber Joist**	**Installation Kit Steel & Aluminium Joist**	**Start/End Clip Steel & Aluminium Joist**	**Stainless Steel Screws**
Secret fixings for securing boards to joists.	For securing first and last rows.	Contains self tapping screws.	Contains self tapping screws.	Contains colour matching screws. Composite material needs to be predrilled and screws should be counter sunk.
				
Includes 50 Clips & Screws and 8 Locking Clips (Covers 2.5m^2)	25 per pack for first & last row	Includes 50 Clips & Screws and 8 Locking Clips (Covers 2.5m^2)	25 per pack for first & last row	100 screws per pack colour coded screws for fixing fascia board Note: Not Available in Cedar

ULTRASHIELD TRIM OPTIONS

Stair Tread	**Fascia Solid Plank**	**Corner Wrap**	**End Pieces**
Professional finishing edge board with concealed fixing ideal for steps and finishing deck perimeter.	Smooth board for a simple clean finish to hide structural framework.	Finishing trim for corners and edges - we do not recommend these to be use for step edges. Corner wrap should be predrilled and fixed to the substructure - not the decking.	Used for sealing and finishing exposed board ends - secure with outdoor silicone sealant.
			
			
138 x 23 x 3600mm	180 x 15 x 3600mm	40 x 40 x 3600mm	138 x 23mm 210 x 23mm



PREDRILL COUNTER SUNK SCREW HOLES



INSTALLATION KITS



STAIR TREAD



STAIR TREAD



FASCIA BOARD

Note: It is very important to provide ventilation to enter the under side of your deck when finishing off side trims.

ALUMINIUM HAND RAIL SYSTEM

Available in Black and White

Aluminium railing is known for its strength, durability and beauty. More and more homeowners these days are choosing Aluminium railing over traditional wood railing for its low-maintenance benefits. Aluminium does not rot, warp, or crack and it never needs to be stained, sanded or painted. It's also an excellent choice for the environment, as it's 100% recyclable and no harmful chemicals are required to treat or maintain it.







WHY CHOOSE ALUMINIUM HANDRAIL SYSTEM?

There are several reasons why Ultrashield Aluminium deck railing is an excellent idea for your deck:

Quick assembly: The rails come pre assembled which reduces installation time.

Quality appearance: A deck railing in traditional black or white colour will give your deck a more complete and upmarket look you are sure to love.

Colour finish: The Aluminium railing has a high quality powder coated finish.

NOTE: The handrail can only be used at a maximum deck height of 600mm above ground level. Full installation instructions available at www.wrg.ie

COMPLETE SYSTEM WITH JUST 4 HANDY COMPONENTS

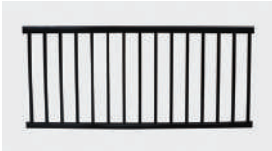
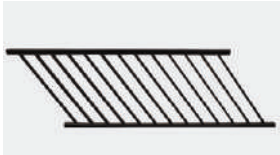


Black railing.

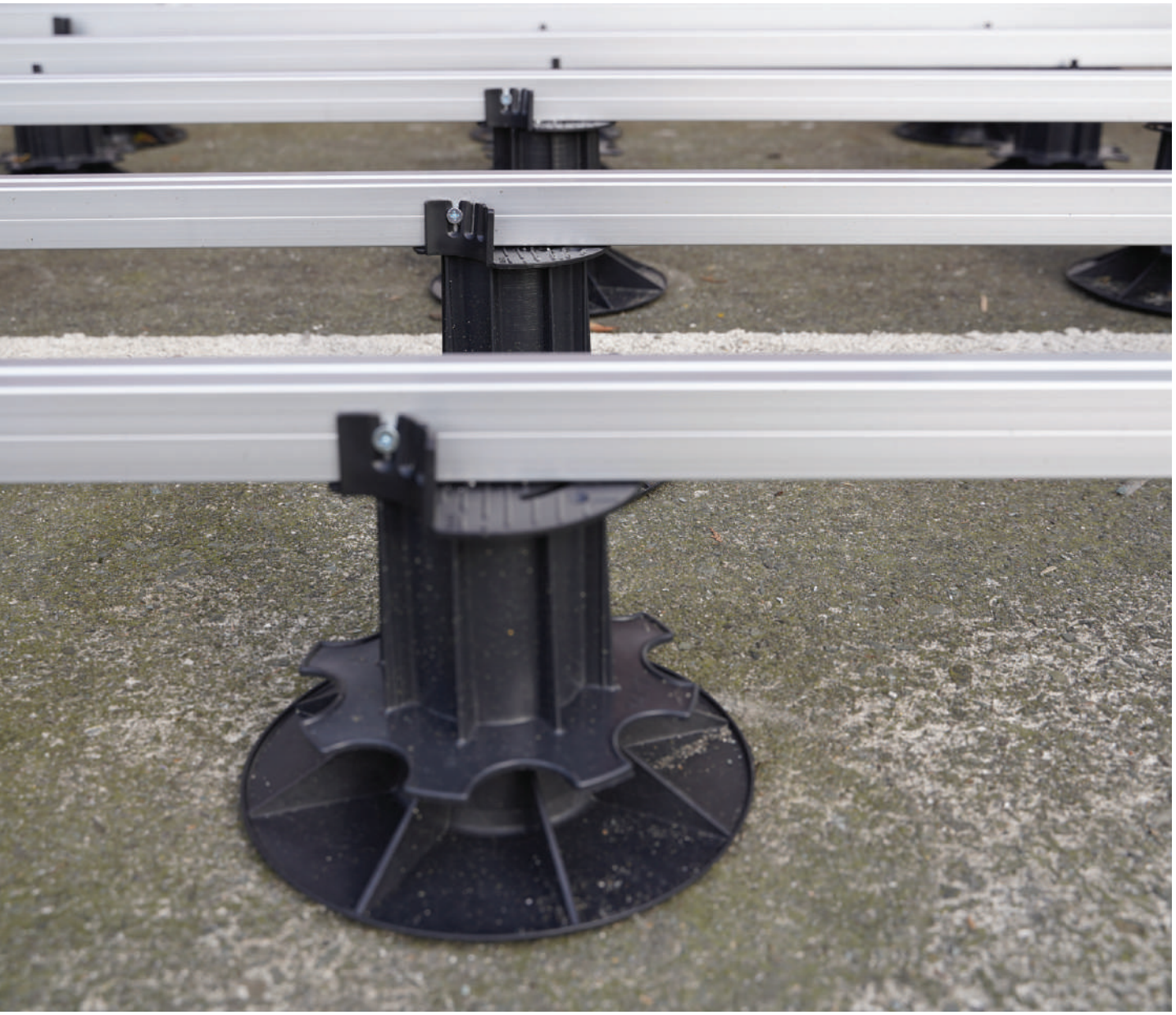


White railing.

Base Flange Covers Fixings

AVAILABLE IN BLACK AND WHITE	
PRE-ASSEMBLED STRAIGHT RAIL SECTION **1829mm Wide** **Includes brackets to fix to post.** **K1710001 Black - K1730001 White**	
PRE-ASSEMBLED STAIR RAIL SECTION **1829mm Long. Spindles pivot between top & bottom rails to allow gradient adjustment. Includes adjustable swivel brackets to fix to post.** **K1710006 Black - K1730006 White**	
1010MM POST **Includes cap & base flange. Must be fixed to sub-construction - not directly to deck boards. Fixings not included.** **K1710011 Black - K1730011 White**	
TOP & BOTTOM SWIVEL CONNECTORS **Allows handrail to be installed at angle instead of straigh installation. Contains 1 top & 1 bottom rail bracket.** **K1710051 Black - K1730051 White**	

NOTE: The handrail can only be used at a maximum deck height of 600mm above ground level. Full installation instructions available at www.wrg.ie







Pedestals offer great flexibility for installation and can be used for decking and paving. They are especially helpful where the installation is close to ground level, pedestals can be used for build ups from 17mm up to 1000mm.

Please note that for composite decking we recommend the installation be at least 100mm above ground level. Pedestals also provide for good air movement under a deck provided ventilation points are installed.

PEDESTALS

BY WHITERIVER

SOLIDOR are a European manufacturer of high quality pedestals for decking and concrete paving. The pedestals can be continuously adjusted in height from 17mm to 1000mm. The durability of the plastic and the solidity of the construction guarantee a smooth installation in all circumstances, and an unprecedented supporting power.

Made From Recyded Material

Weatherproof

Temperature Resistant between -25 / + 70°C

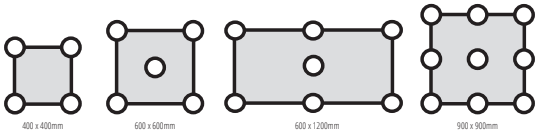
Certificates CSTC / CSTC No., DE, ATA

Load Bearing 800kg per Pedestal

PP Compound

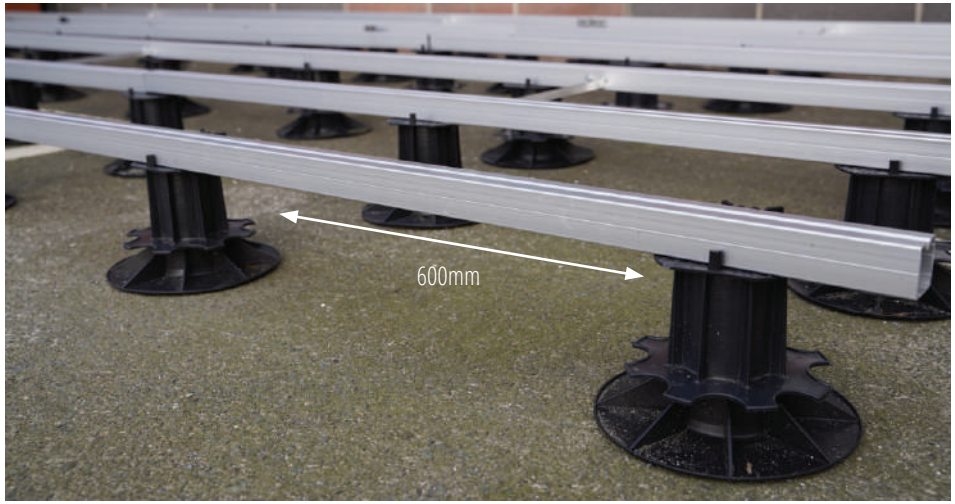
CAN ALSO BE USED FOR PAVING

COVERAGE GUIDE

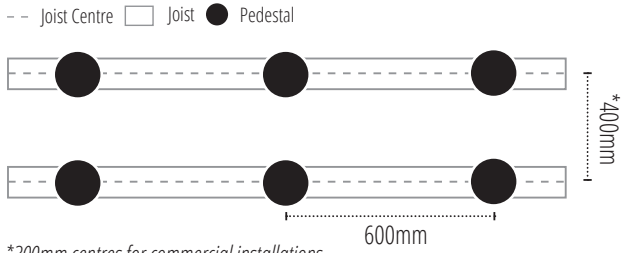


- Paving pedestals are recommended for slabs with a minimum size of 400x400mm, in accordance with the instructions of the paving manufacturer.
- Paving formats larger than 600x600mm will need an extra pedestal in the centre of the slab, please seek advice from your paving manufacturer as this will vary depending on thickness and overall strength of each paving slab.

DECKING COVERAGE GUIDE



Spacing depends on joist strengths. 600mm spacing shown is for Whiteriver 38mm Aluminium Joists.



**300mm centres for commercial installations*

BASED ON THE ABOVE DIAGRAMS
WE RECOMMEND APPROX. 6.0 PEDESTALS PER M²

Pedestal spacing can be from 500mm to 1000mm along the joist length, however this depends on the application and joist strength. Whiteriver Aluminium joist can be used at 600mm Pedestal Spacing.

STANDARD PEDESTALS SOLUTIONS

STEP 1

Once you know your height required, pick your base. It may be a case that you need a mixture of pedestal bases, if there are different heights within your project.

35MM - 50MM ADJUSTABLE PEDESTAL BASE



PV 3.5/5
PRICE EXCLUDES SUPPORT PLATE

K1420016

50MM - 80MM ADJUSTABLE PEDESTAL BASE



PV 5/8
PRICE EXCLUDES SUPPORT PLATE

K1420017

80MM - 110MM ADJUSTABLE PEDESTAL BASE



PV 8/11
PRICE EXCLUDES SUPPORT PLATE

K1420018

110MM - 140MM ADJUSTABLE PEDESTAL BASE



PV 11/14
PRICE EXCLUDES SUPPORT PLATE

K1420019

140MM - 170MM ADJUSTABLE PEDESTAL BASE



PV 14/17
PRICE EXCLUDES SUPPORT PLATE

K1420020

35MM - 50MM ADJUSTABLE PEDESTAL BASE
For use against wall



AK 3.5/5
PRICE EXCLUDES SUPPORT PLATE

K1420021

50MM - 80MM ADJUSTABLE PEDESTAL BASE
For use against wall



AK 5/8
PRICE EXCLUDES SUPPORT PLATE

K1420022

STEP 2

Pick the plate to go on top of your base. CPV+ is for timber and aluminium joists.

JOIST SUPPORT PLATE WITH SIDE FIXING



CPV+
MAX. JOIST WIDTH 78MM

K1420026

FLAT SUPPORT PLATE WITHOUT GUIDE



CO
FOR ADDITIONAL SUPPORT WHERE REQUIRED

K1420006

PAVING SUPPORT PLATE



C3/4T
PAVING SUPPORT PLATE WITH 3MM SPACERS

K1420007

STEP 3

Consider if any accessories are needed. Most common are extension pieces. Extension pieces can be used to bring pedestals up to 1m.

FRICTION PAD
For top of pedestal



2MM FRICTION PAD
FOR USE WITH PAVING SUPPORT PLATE

K1420010

30MM PEDESTAL EXTENSION PIECE



F30
MAX HEIGHT 8 PER PEDESTAL

K1420023

100MM PEDESTAL EXTENSION PIECE



AF100
MAX HEIGHT 10 PER PEDESTAL

K1420009

NEW

210 X 210 X 3MM PROTECTION PAD
For under pedestal

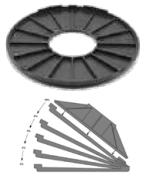


PROTECTION PAD
FOR SURFACE, SOUND & SHOCK ABSORBING PROTECTION. CAN ALSO BE USED AS SHIM FOR LEVELLING.

K1420025

NEW

SLOPE CORRECTOR



HS2
REDUCES INCLINATION DIFFERENCES FROM 2% TO 10% BY STACKING UNDER PEDESTAL

K1420015

LOW HEIGHT PEDESTALS SOLUTIONS

STEP 1

Select an adjustable base 17mm to 23mm.

NEW

17MM - 23MM ADJUSTABLE PEDESTAL BASE



P17
PRICE EXCLUDES SUPPORT PLATE

K1420027

Our Premium low height range allows you to raise joists by as little as 17mm for an ultra low secure base for your project. The 3mm, 5mm & 10mm small rubber pads, can be used to support joists where the height requirement is < 17mm. **Note:** always remember to deduct the joist thickness plus finish product thickness from overall finished height required. For composite decking we recommend 100mm air space under the boards.*



**For low height build up please seek advice.*



Low pedestal solutions.

STEP 2

Pick the plate to go on top of your base. C2V+ is for timber and aluminium joists.

NEW

C2V+ JOIST SUPPORT PLATE



C2V+
MAX. JOIST WIDTH 90MM

K1420028

NEW

C4T PREMIUM PAVING SUPPORT PLATE



C4T
PAVING SUPPORT PLATE WITH 3MM SPACERS

K1420029

STEP 3

Consider if any accessories are needed. Most common are extension pieces, and joist support pads.

NEW

5MM EXTENSION PIECE



S5
MAX HEIGHT 2 PER PEDESTAL

K1420030

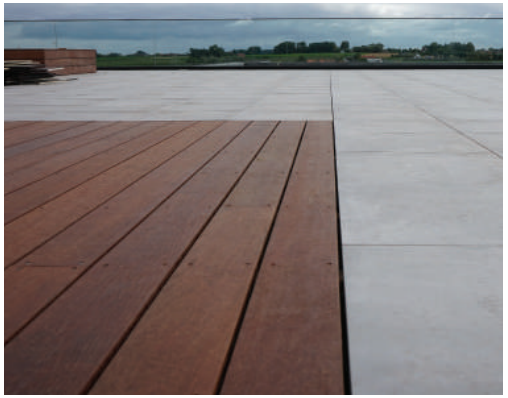
NEW

96MM X 96MM JOIST SUPPORT PAD



Use directly under joists to build up heights <17mm

3MM - K1420031
5MM - K1420032
10MM - K1420033



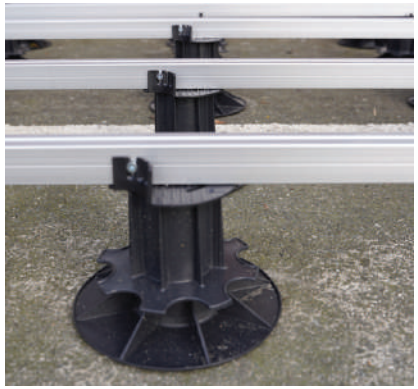
Pedestals give great flexibility for installations and make it easy to allow decking and paving to be installed easily in the same area.

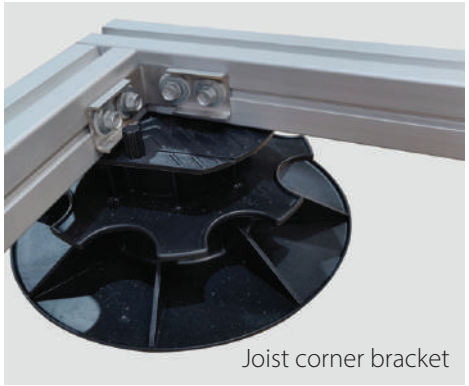
WHITERIVER ALUMINIUM JOIST SYSTEM




Joist joining bracket


Joist support




Joist corner bracket

Step 1 - Understand the spacing's required for the finished product going on top. For composite decking in residential setting using our 38mm aluminium joist, the spacing for the aluminium joist will be 400mm centres and the pedestal spacing will be 600mm.

Step 2 - Remember when planning to take account of the direction you want the boards to run, the board length and finishing look around the perimeter. Composite decking requires a fall of 1.66% (1:60 fall) for water to drain off the boards.

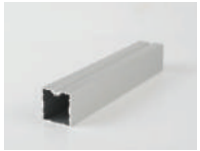
Step 3 - Building the frame for your composite decking – Set out pedestals and joist per above. Each pedestal should be screw fixed to the aluminium joist. Joiner brackets should be used where aluminium joists meet – leave a 4mm gap for expansion and drainage. Stabilisation joist supports can be used on outer frames; note it is not necessary to do these on every row.

Step 4 - Double Aluminium joist can be used where board ends meet. The wide joist allows each board to be fixed with its own clip and any water can drain in the U shaped channel.

Step 5 - Finishing perimeter – Corner brackets can be used with the aluminium joist to create a side frame. Remember to provide for ventilation for underneath your deck. Please look at the vents we offer.

Step 6 - All screw fixings for aluminium can be predrilling. For ease of installation we recommend tek screws and tek screw driver which are available from most Hardware stores. Aluminium can be pre drilled to make it easier for installing the tek screws.

Please refer to www.wrg.ie for our full installation guidelines for composite decking.


38 x 38 x 3000mm Aluminium Joist

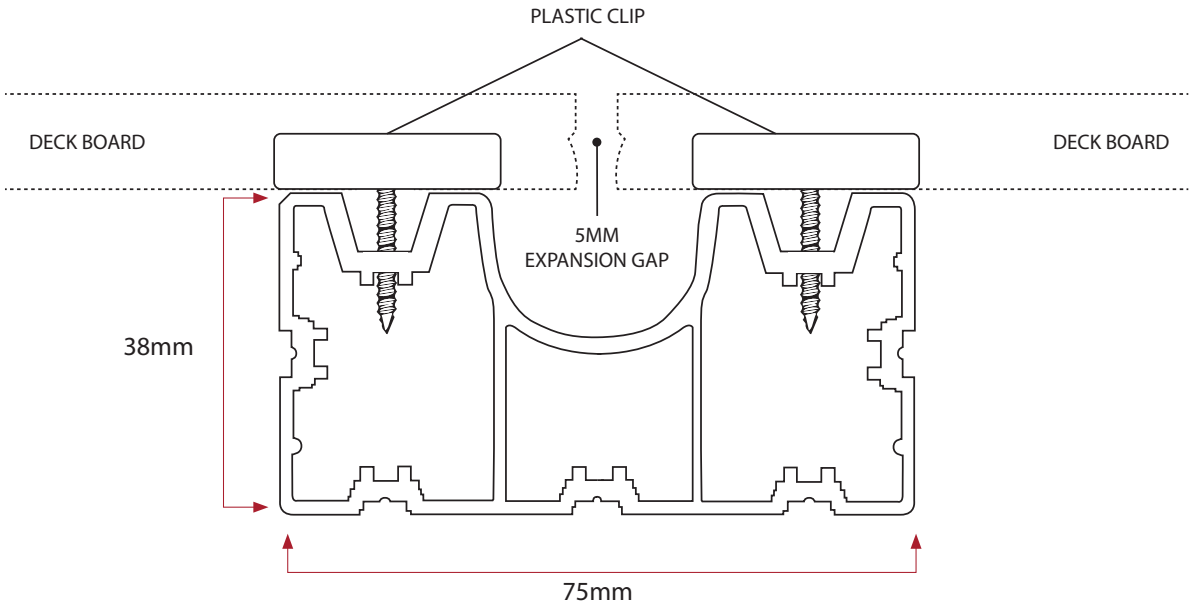

75 x 38 x 3000mm Aluminium Double Joist


362mm Joist Support for 400mm centres with 38mm joist

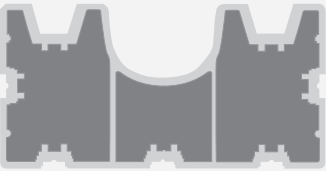

Joist Corner Bracket


Joist Joining Bracket

WHITERIVER DOUBLE ALUMINIUM JOIST SYSTEM



1. The Aluminium double joist should be used where two board ends meet.
2. The double joist provides stability for the fixing clips.
3. Remember to leave 5mm expansion gap.
4. The main reason for using the double joist is that it helps prevent moisture soaking into the board ends.
5. In a normal installation format, **you need approx. 20% of your joists to be double joists.***
6. It is very important to leave 5mm gap at joist ends so water can drain away freely.



*It is best to sketch out your deck layout and this will tell you clearly the number of double joists you need.

Deck Preparation

See full instructions on www.wrg.ie technical information before starting.

DECK CALCULATOR PAGE 74/75

FAQ'S PAGE 82

Planning Your Deck

Designing and building a deck can be a fun and a rewarding experience. You probably have given some thought as to what you want in a deck, now is the time to really visualise it. What will your deck be used for, relaxing, entertaining, will you put garden seating, BBQ, tables with a parasol on it and how many people might you have on your deck? Will there be children and elderly people using it?

These are the questions you need to look at before starting.

(1) Where will I install the deck?
(2) What size do I want the deck?
(3) Which deck board do I like best?
(4) Which direction should the boards run?
(5) Which substructure will I use: Hardwood, *Steel or Aluminium joists?
*Steel / Aluminium joists >2mm: A hole must be pre drilled in the joist and specific Steel Joist Installation Kits must be used.

Follow the fitting instructions carefully, see full instructions on www.wrg.ie technical information before starting.

Location and Deck Size

When deciding the size of your deck, look around at the space you have, your house, the size of your garden and what proportion of deck will enhance and improve the look of it. Your deck should have a southerly aspect. Is the ground level or falling? How close to the house would I like the deck? When deciding on the size of deck you need to take into account that the deck boards are 3600mm in length. You can make a deck any length, but you want to avoid having a deck with very short end boards. Therefore it's important to plan your exact deck layout.

Tools Required

Whiteriver Decks can be installed using the same tools that you would you use for fitting any timber deck. • Tape Measure • Electric Saw • Level • Square • Cordless Drill • drill bits • Building Line • Safety Goggles

General

Composite decking has a composition of 60% timber, 30% HDPE Plastic and 10% Resins / Pigments etc. While the timber element is very stable (it is kiln dried at very high temperatures to remove the cell structure), the HDPE expands and contracts on the length of the board in line with changes in temperature and humidity. It is necessary to leave a perimeter gap of 10mm around where the deck meets fixed objects/obstructions and also a 5mm spacing must be left at each short board end to allow for normal seasonal movements.

Design

Once you have made a decision on the above, now you need to decide on the deck design. A deck that is well designed can do amazing things to your home.
First decide on the direction you would like the boards to run please note boards must drain along the length of the board, the minimum fall required is 1.66% (1:60 fall) to allow water drain off the boards e.g. a 5 metre deck should have a fall of 83mm across the deck. **Do not install the decking flat.** Will there be steps? Would you like handrails around it? What colour will suit your garden and house best?

Ventilation and Site Conditions

There should be good drainage under the deck and all topsoil should be removed and replaced with clean stone, unless the deck is at least 1000mm above ground level with open ventilation under the deck. No soil should meet the deck boards or under structure. The ground/substructure should be properly supported - please consult with an engineer if you are unsure. Whiteriver composite decking products CANNOT be directly installed onto a flat surface. It must be installed onto a substructure, so there is adequate and unobstructed air flow under the decking to prevent excessive water absorption.
Good ventilation under your deck is key to it performing well in the long term.

For non screed and screed surfaces, plan a minimum of 100mm (4 inches) of continuous net free area under the decking surface. This is required to allow for adequate ventilation on all deck types so air can circulate freely between adjacent joist members to promote drainage and drying. Air must have an entry point and exit point to the sub construction.

Joist should be built up on two criss cross layers or the joist should be supported with plastic pedestals to allow for air movement. For small balcony areas, less than 10m2, it is possible to have a lower clearance provided sufficient drainage and air movement can be provided. For balcony projects, we recommend getting the design reviewed by an engineer.

Please note areas that are walled in on all sides are not suitable for deck installation as there will not be enough air movement under the deck, unless ventilation through the walls is provided for the undercarriage. If there is any dampness under the deck, it can lead to mould build up underneath the deck and excessive swelling, expansion and contraction in the boards. In summary, it is vital that the area underneath the deck is free draining and per above, adequate ventilation is provided for.

If you require any technical advice, please contact our sales office on **Email: enquiries@wrg.ie**

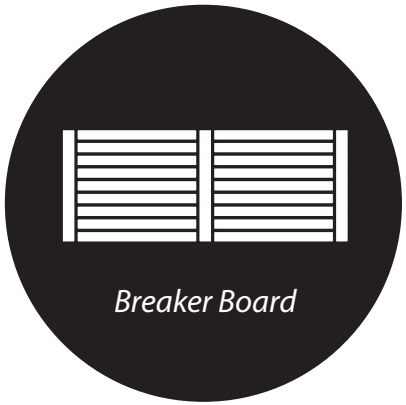
To ensure you get the best result from your Whiteriver Composite Decking, we recommend working with a professional contractor with previous composite decking installation experience. Please ensure the installer reads the instructions fully.

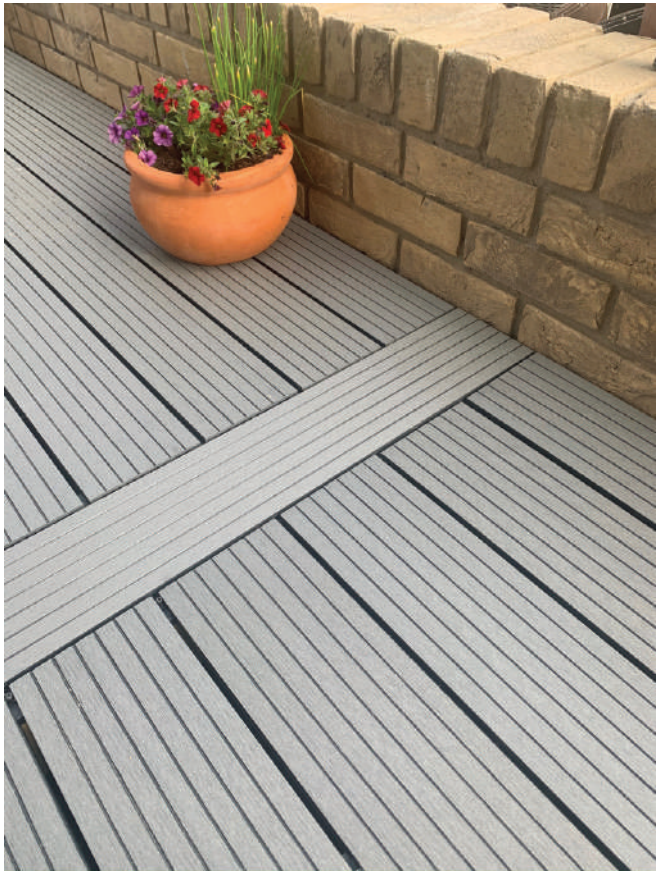
Direction of Deck

There is no correct deck direction, it is purely personal preference but whatever you choose dictates the sub-frame design and configuration. Things to consider: Think about where you or your guests will view the deck. Looking along the length of the boards will make the deck look longer, while looking across the boards creates an illusion of width. All boards are 3600mm long and each side of the board contains different groove or pattern.









Composite Decking Installation Do's & Don'ts

Please read the instructions fully before starting to install. Failure to install composite decking correctly will result in the deck becoming structurally unstable.

A 10mm gap around the whole deck must be left for expansion and a 5mm gap between board ends.

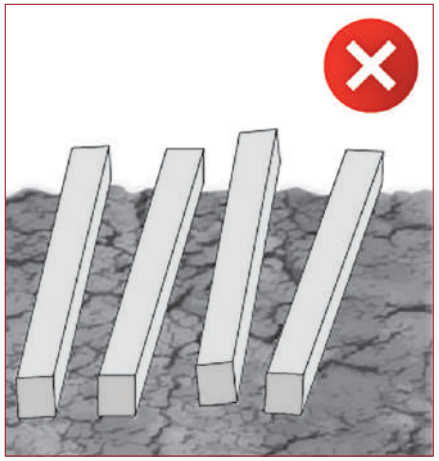
- LEAVE A 10MM GAP AROUND DECK PERIMITER TO ALLOW FOR MOVEMENT
- ENSURE THERE IS GOOD AIR CIRCULATION AROUND AND UNDER THE WHOLE DECK
- LEAVE A 5MM EXPANSION GAP BETWEEN BOARD ENDS
- DOUBLE JOIST WHERE BOARD ENDS MEET. EACH BOARD END SHOULD HAVE ITS OWN CLIP & JOIST
- USE STEEL INSTALLATION KITS FOR FIXING TO STEEL OR ALUMINIUM JOISTS
- USE GOOD QUALITY JOISTS OR ALUMINIUM. PRE DRILL FASCIA BOARDS BEFORE FIXING
- USE RECOMMENDED CLIPS TO SECURE BOARDS TO JOISTS
- PRE DRILL STEEL JOISTS TO RECEIVE STAINLESS STEEL SCREWS
- ACCLIMATISE BOARDS TO THE ENVIRONMENT FOR 3 DAYS PRIOR TO INSTALLATION
- LEAVE A NATRUAL FALL TO ALLOW WATER TO DRAIN OFF BOARDS
- USE LOCKING CLIPS TO CONTROL EVEN EXPANSION & CONTRACTION ALONG THE LENGTH OF THE BOARD
- 20MM MAX. OVERHANG FROM JOIST AT DECK EDGES WITH LAST FIXING CLIP MAX 30MM FROM BOARD END
- SCREW DIRECTLY THROUGH BOARDS AND COMPOSITE JOISTS
- STORE BOARDS ON SOLID OR UNEVEN SURFACES
- INSTALL IN AREAS THAT HAVE WALL ON ALL SIDES
- LEAVE BUTT JOINTED AND CUT ENDS UNSEALED





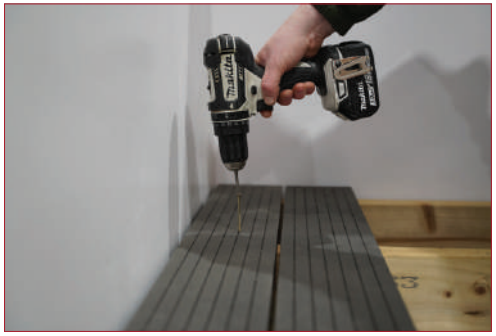
Bridging supports can be put in as required.





A structurally sound sub frame must be installed ensuring there is no movement prior to fixing boards to the joists. A 1.66% (1:60) fall to allow water to drain and a minimum 100mm free air space between the boards and the ground beneath to allow sufficient airflow to prevent the build up of moisture is essential.





Composite decking should only be installed using correct clips and fixings. Failure to do this will affect the structure of the deck as well as warranty. Never screw directly through the boards. Steel joists >2mm must be pre drilled and specific Steel Joist Installation Kits must be used.

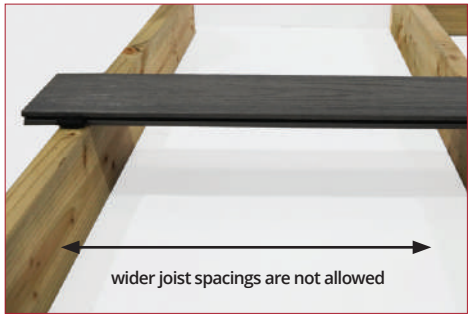
Note: Due to the production process for Ultrashield decking board widths can vary slightly. Boards widths should be measured and matched accordingly.





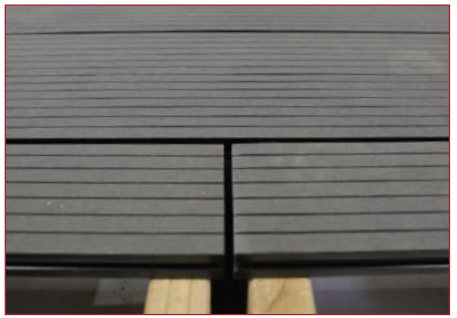
The overhang of the board should be a maximum of 20mm.

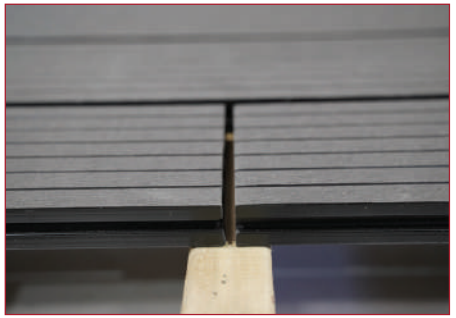




Joists must be set to a maximum of 400mm centres for Portland (350mm Ultrashield). This is to ensure stability and also to avoid warping and cracking of the deck boards.

Note: 300mm are recommended for commercial installations.





Board ends butted together must be supported by separate joists and have a min 5mm gap for expansion. Failure to do this may result in structural failure, swelling and warping. There should be a spacing gap left between the double joists to allow rainwater/debris to fall through the boards.

Key points on how to fit your composite decking correctly.

Following on from our Dos and Don'ts we explain the issues that can arise if decks are not installed or maintained correctly.



What happens if I leave soil under my deck area ?
The soil will retain a lot of moisture and this will affect your decks performance. You need to remove the soil and then stone the area below your deck. You also need to ensure the area is free draining. If your deck is being raised by more than 1m and the area is being left completely open underneath the ground type is less important.

What happens if water pools under my deck ?
Similar to the reasons mentioned above for soil, it will have a negative affect on your substructure and deck boards performance. If in a balcony area, it may be a sign that there may be a blocked drain.

What happens if I fit my deck flat with no fall ?
If you fit your deck flat, the water will not be able to drain off your deck boards easily and your deck will remain wet for much longer periods after it rains. This will cause your deck to catch more dirt and will also encourage over time mould growth to develop.

What happens if I fit my deck with north or east facing orientation ?
Your deck will get much less sun light and will be more prone to being damp and wet for longer. If you are fitting in a north facing area, your deck will require more regular cleaning.

What happens if I don't provide ventilation under my deck ?
The area under your deck will become damp and this may cause your substructure to rot or corrode over time, the decking will also expand and contract a lot more as the excess moisture will pass into the decking boards. Your substructure therefore needs ventilation for 2 reasons.

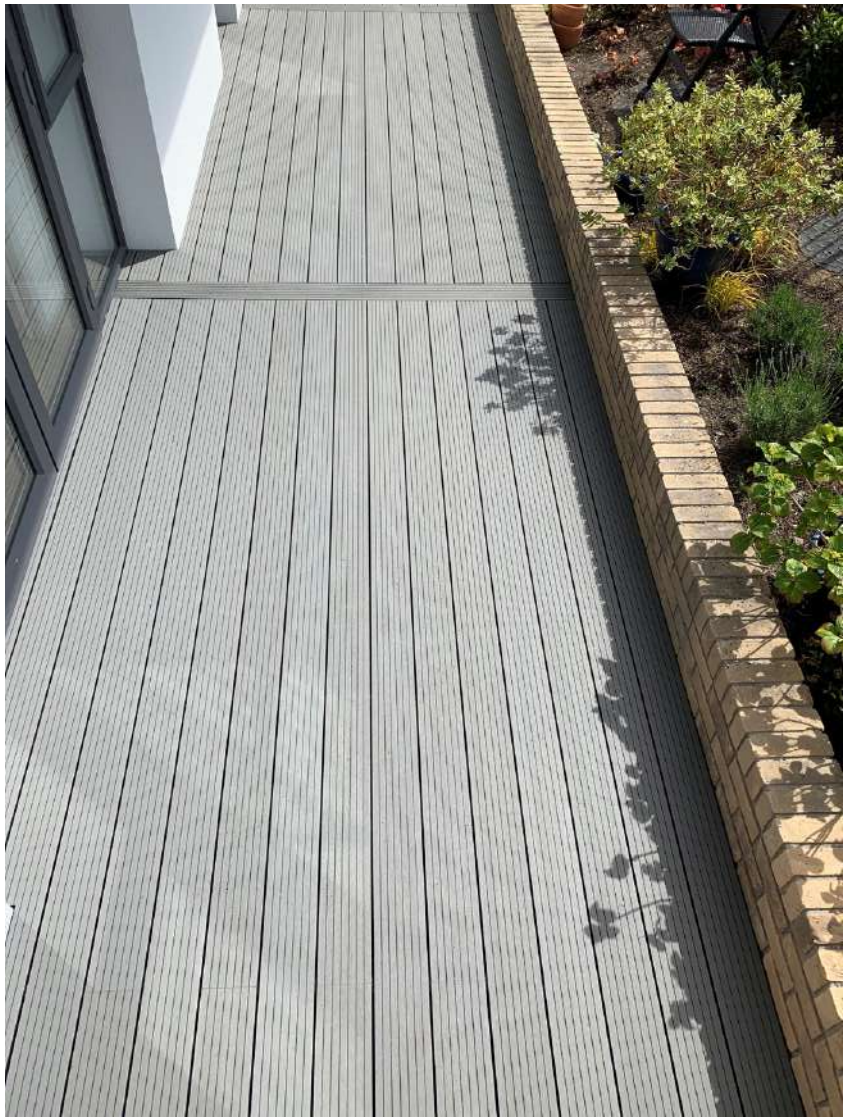
What happens if I don't leave expansion gap of 5mm at board ends or 10mm around perimeter walls ?
Composite decking will expand and contract as the climate changes. If there is no room for the boards to expand, they will push against each other or the wall and eventually they will develop cracks.

What happens if I don't use a double joist where board ends meet ?
The reason you use a double joist where board ends meet is that the water can drain off the board ends freely and fall to the ground. The board ends are also properly supported with clips. If the board ends are left resting on the joist there is the risk that they will absorb excess moisture causing the boards ends to swell and expand.

What happens if I don't use one locking clip per board that is provided in the installation kit ?
The boards may gradually slide along the normal clips and leave a big gap at one end. The teeth on the locking clip help control the boards movement, it is vital that one clip with teeth catches each board close to its mid-point.

What happens if I screwfix other items through the deck boards ?
This will create a pressure point and the boards may crack over time as there may not be enough expansion room. Handrail systems should always be fixed to the substructure and not through the deck boards.

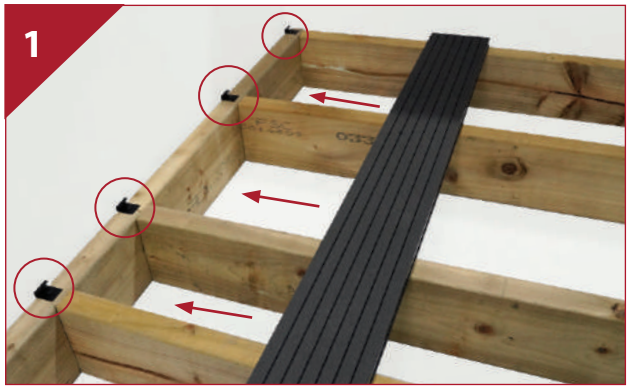
What happens if I don't clean my deck ?
Your deck will remain fine in the short term but over time the deck will collect dirt and pollen and eventually as the deck gets dirtier there will be some green or black mould growth. Your deck never needs to be painted or sealed but it is important to have a cleaning programme.



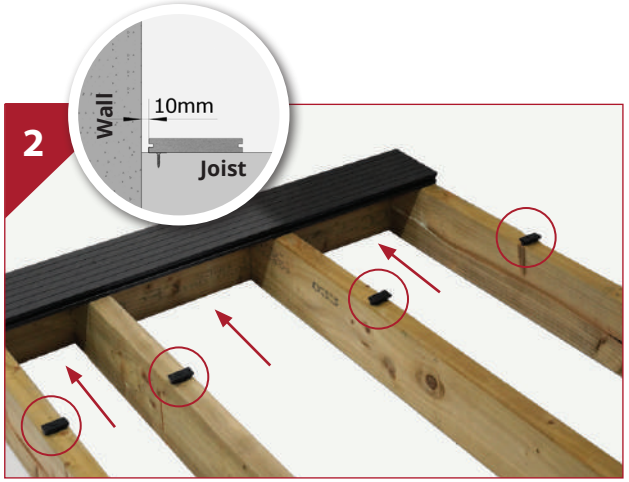
We hope the above helps you understand why getting your deck installation correct is the key to you having a great outdoor area to enjoy.

Installation Guide

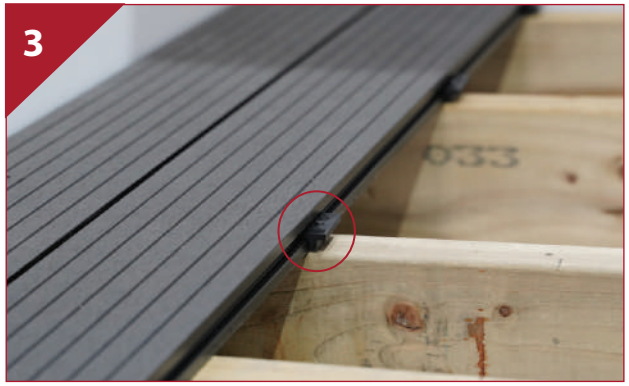
- Make sure you have ordered enough material, so as not to be short. Allow for about 5% waste. Diagonal installations will have a higher waste factor.
- Store decking on site for at least 3 days, raised off the ground, lying flat and keep it dry.
- Ensure there is adequate ventilation under the deck. Air should have an entry point and exit point to the sub construction.
- Make sure you allow for expansion of the deck. An expansion gap of 5mm must be allowed where board butt ends meet and a 10mm gap should be left where boards meet fixed points e.g. walls, pillars or railing posts. No objects should be fixed directly to/through the deck as this will prevent seasonal movement. These should be fixed to the substructure.
- Due to the production process for Ultrashield decking board widths can vary slightly. Boards widths should be measured and matched accordingly.
- Each board end must sit on it's own independent joist with a 5mm expansion gap at board ends per above. There should be a 10-25mm gap between each joist to allow for water/ debris to fall straight through.
- There should be good drainage under the deck.
- There should be a minimum fall of 1.66% (1:60) along the deck boards to allow for water to drain freely.
- It is essential to use a locking clip on the joist nearest the centre of every board. This minimises the amount of expansion that the board can do.
- Whiteriver decking is approved for use over joist centres of maximum 400mm/16" (300mm/12" in commercial use) for Portland. Max. 350mm centre to centre for Ultrashield (300mm in commercial use).
- Cantilever / overhang of deck board from joist at deck edges should be no greater than 20mm with the last securing clip no more than 30mm from board end to prevent cupping.
- Read the full set of instructions on **www.wrg.ie** technical information before starting.



Secure start/end clips in line with each joist. Please note an expansion gap of 10mm must be placed around any fixed objects within the decking e.g. stair case, post brackets and any permanent fixtures that may prevent the decking expanding and contracting naturally. Where two boards join together on the first row, a starter/end clip must be used on each board with a 5mm expansion gap on the short end. Hollow deck boards are not suitable for face fixing. Push the first deck board into the start/end clip. Check that the board is straight and fully inserted into the clip.



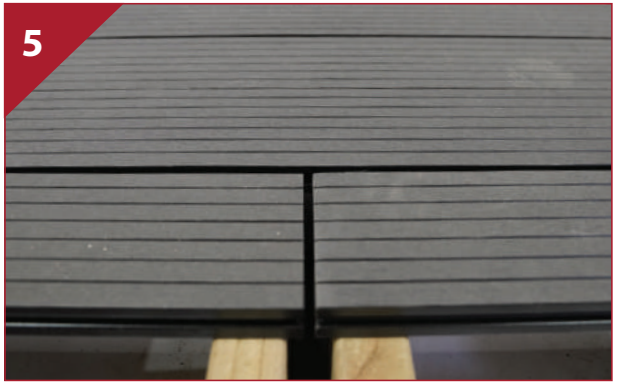
Insert a standard clip into each deck board in line with joist and screw fully but do not over tighten.
Note: A locking clip will need to be installed on each deck board per point 4.



Push the second row of boards into the previous installed row of boards making sure that the deck board grooves are in tight on the clips. Continue to keep inserting clips and boards in this way (using one locking clip per board).



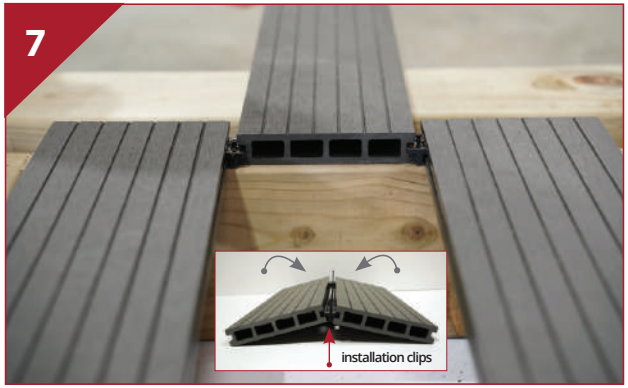
It is very important to install one locking clip per board onto the joist nearest the centre of the board. This helps maintain a consistent expansion gap at the short end. Failure to use the locking clip will result in uneven gapping at short ends. **Attn: Each board only requires one locking clip in the middle. The teeth should always face the same direction.**



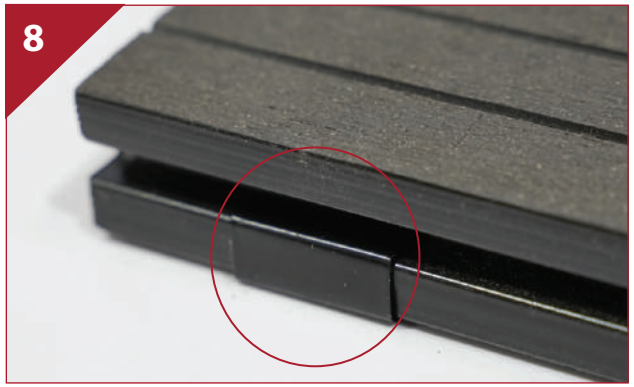
When butt jointing boards along the length of the deck you must leave a 5mm gap for seasonal expansion and contraction - see diagram above. Note comments on point 6 regarding double joisting. Boards must not meet across one single joist and must be sealed to prevent swelling, cupping and splitting.



All board ends should be on their own independent joists or if using Aluminium joist, make sure to use our Aluminium Double Joist with its own clip i.e. when butt jointing boards, sister joisting must be used. **This is to ensure that the board will not slide off the joist - failure to do so will void the warranty. Also there needs to be a minimum of 10-25mm between the sister joists per diagram for water to go down between the joists or swelling could occur at the ends.** UltraShield board ends meeting across sister joists should be sealed with a polyurethane matt exterior varnish to prevent end swelling, cupping and splitting.



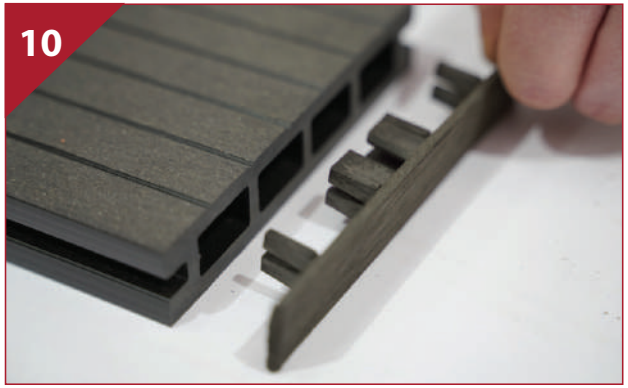
If not framed by wall or building on each side, the second last row of boards can be slid into position after you have fixed the last row and the clips for the second last row have been fixed into position.



For the last row of boards use a start/end clip in line with each joist. You need to use these clips even if you putting on a fascia board. If you can not slide in the board, the boards can be fixed with screw at 45 degree angle.
Important: the screw hole must be predrilled.



You can use a solid fascia plank for a great looking finish. It is very important to predrill all composite material prior to fixing with a hole slightly bigger than the screw. Fix in two stainless steel screws into the substructure at intervals of 300-400mm - the fascia must be predrilled with a countersunk hole and fixed to a solid timber plank in all areas (not directly to the butt ends of exposed joists). **You must leave a minimum 40mm gap between the bottom of the fascia and the ground to allow for ventilation.**



Moisture can penetrate to the core in the end-cut area and could cause swelling, cupping and cracking at the edge area. Our end pieces are made from durable material with high impact resistance under harsh weather conditions. To prevent moisture penetration we recommend:
Nevada solid board: Seal all cut ends with a water based polyurethane matt exterior varnish to the full surface of all end-cuts.
Hollow boards: End Pieces should be used at perimeter and sealed all round with outdoor silicone sealant.

Note: It is very important to provide ventilation to enter the under side of our deck when finishing off the side trims.
Once your deck is finished, please ensure to protect your deck until all other trades are finished.

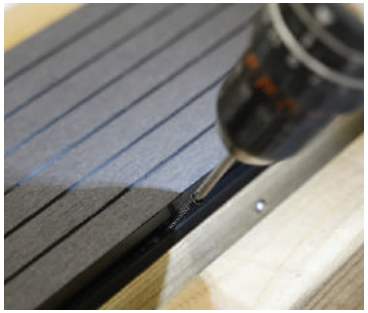
Breaker Board Installation

Diagrams below show how framework and installation of the breaker board respectively. The framework uses a ladder joist installation where the user is building a frame perpendicular for the board that will be running down it.

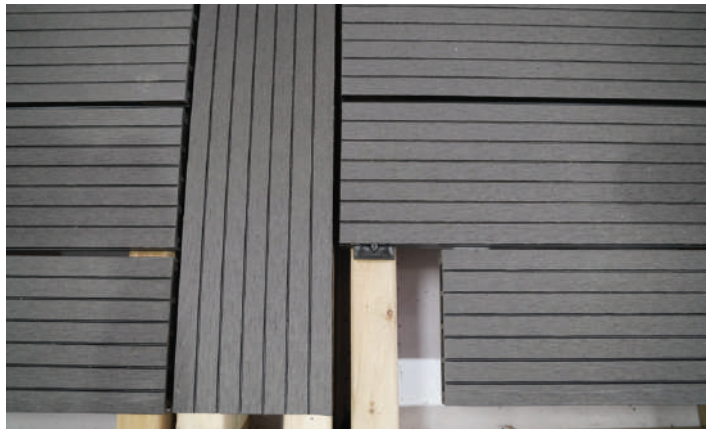
The below breaker board design ensures the water runs off the board end and down between the joists. The board ends should not rest on the timber as it will absorb moisture.



Important: All Ultrashield board ends meeting the breaker board or at deck end should be sealed with a water based polyurethane matt exterior varnish to prevent moisture penetrating the board core. The boards should be predrilled with a 3mm drill bit before screws are fixed at 45 degree angle to fix the breaker board. Its important to predrill before screwing as this prevents the boards cracking later.
A starter clip can be used on one side of breaker boards.



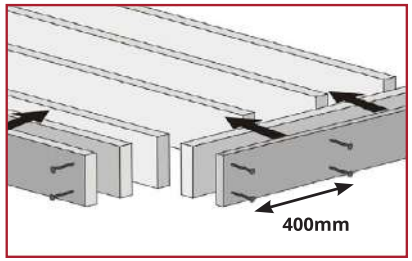




Note: Gap for water to run off board ends to the ground.

Fascia Board Installation

Installing against the width and length of decking



Fascia boards need to be fixed at installed on 400mm centres to prevent warping or buckling.
All fascias need to use two screws 40mm away from the ends regardless of the thickness.

First, pre-drill 3mm holes in the fascia board before face fixing with screws. This drilling allows for the fascia board to expand and move slightly. The fascia board will then be installed into the joist or side board.

Note: NEVER install the fascia by drilling into the decking ALWAYS install the fascia into the joist and ALWAYS pre-drill the fascia with a countersunk hole.

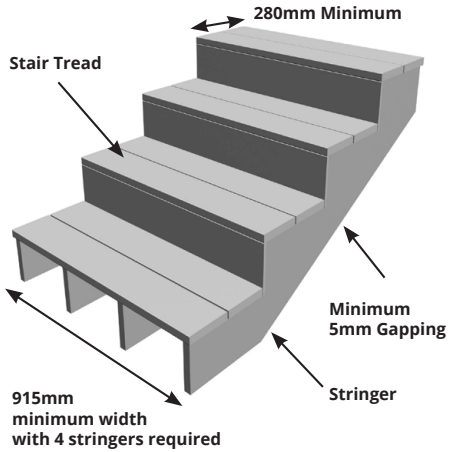
Good ventilation under the deck is key to it performing well in the long term. DO NOT close off air flow around the perimeter of the deck by fixing fascia too close to the ground. Provide vents if needed.



Stair Tread Installation

Stair treads must meet requirements by Government Building Standards - please consult Department of Housing, Planning and Local Government.

A minimum of four (4) stringers are required. Overhang on a stair tread should not exceed more than 16mm.
Joist centres on steps are 300mm.



First, determine how many boards your stair is going to take to finish (including clip spacing of 6mm between boards) and then you can start to measure where the starter clip will go. Use a white chalk line (NEVER USE COLOURED CHALK) to ensure that all starter clips are lined up on each joist as shown in **Diagram 1.**

Note: The stair tread board can only cantilever/ overhang 16mm. If this is exceeded the warranty will be voided.

Place stair tread board over all the starter clips and push down as shown in **Diagram 2.**

Now that the starter clips are inside the underside of the stair tread, the final step is to push forward to ensure that it is secured into place as shown in **Diagram 3.**

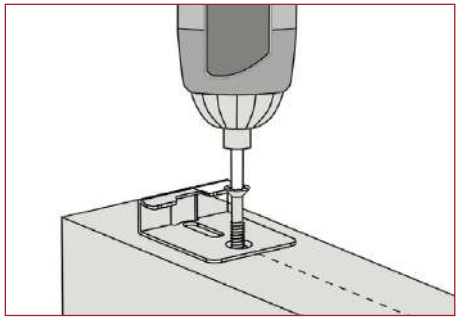
Now take the next board and have it situated behind the stair tread board as shown in **Diagram 4.**

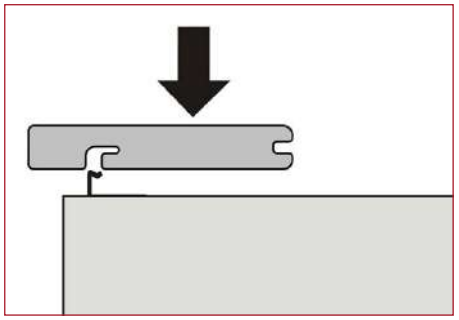
Slide the clips into the two grooves and glide them along until they are on their respective joists and then screwing down onto the joists as shown in **Diagram 5 & 6.**

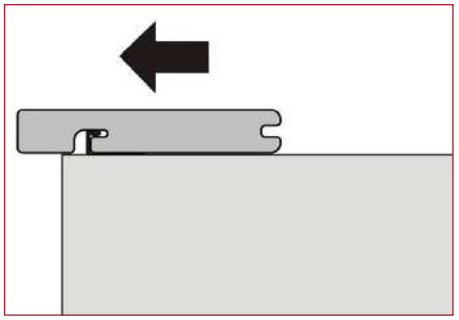
Finally, finish your last board by face fixing into the board at every joist as shown in **Diagram 7**.

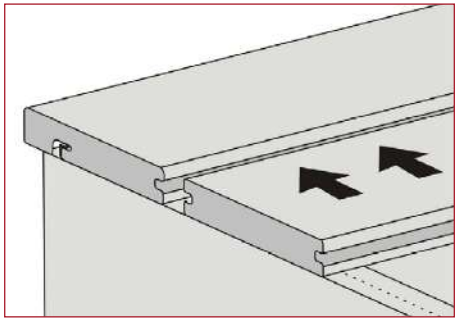
Note: Remember to pre-drill before face fixing into the board. Also face fixing must happen at a 90 degree angle and must be at least 40mm by 40mm from the ends and the width of the board. All pre-drilling must be with a countersunk bit.

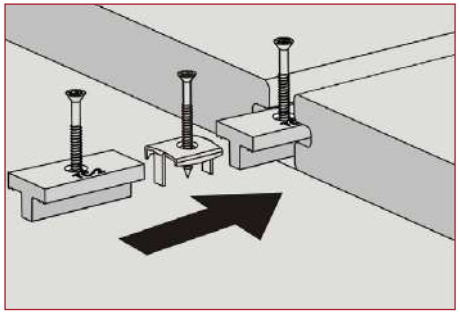
Diagram 8 shows a completed staircase from the side to get a better idea of how the final installation will look.

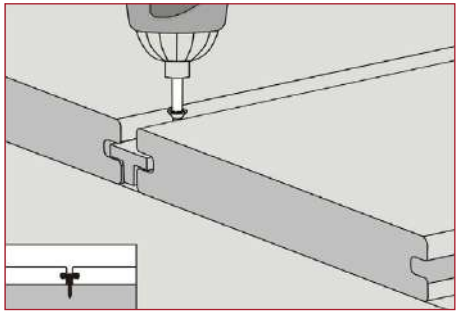

Diagram 1

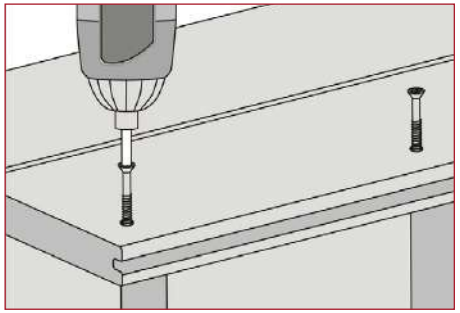

Diagram 2


Diagram 3


Diagram 4


Diagram 5


Diagram 6


Diagram 7

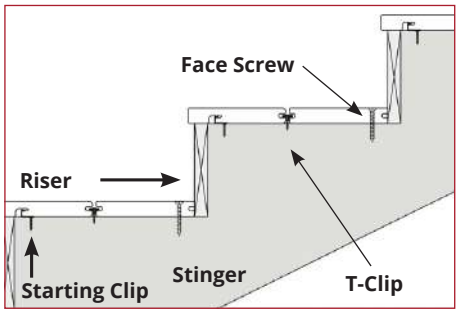
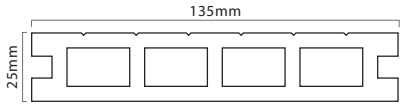


Diagram 8

Technical Data

MONTANA

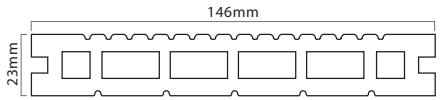
Montana Composite Decking.
Available in Fired Earth, Anthrazit, Charcoal and Soft Grey.



Test Items	Requirement	Result
Max Load	Mean ≥ 3300 Min ≥ 3000	Mean 4619 N Min 4409 N
Deflections under 500 N	Mean ≤ 2.0mm Min ≤ 2.5mm	Mean 1.12mm Min 1.16mm
Swelling and Water Absorption	**Mean Swelling** ≤ 4.0% in thickness ≤ 0.8% in width ≤ 0.4% in length **Water Absorption** Mean ≤ 7% Max ≤ 9%	**Mean Swelling** ≤ 0.15% in thickness ≤ 0.04% in width ≤ 0.03% in length **Water Absorption** Mean ≤ 0.5% Max ≤ 0.54%
Creep Behaviour	**Known Span in use** Mean ΔS ≤ 10mm Max ΔS ≤ 13mm Mean ΔSr ≤ 5mm	**Span: 400mm** Mean ΔS ≤ 3.47mm Max ΔS ≤ 4.14mm Mean ΔSr ≤ 2.69mm
Joist Spacing	**Span: 400mm Residential** **Span: 300mm Commercial**	

ARIZONA

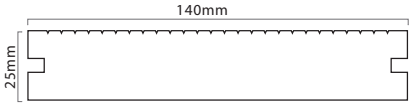
Arizona Composite Decking.
Available in Soft Grey only.



Test Items	Requirement	Result
Max Load	Mean ≥ 3300 Min ≥ 3000	Mean 3759 N Min 3595 N
Deflections under 500 N	Mean ≥ 2.0mm Min ≥ 2.5mm	Mean 1.35mm Min 1.44mm
Swelling and Water Absorption	**Mean Swelling** ≤ 4.0% in thickness ≤ 0.8% in width ≤ 0.4% in length **Water Absorption** Mean ≤ 7% Max ≤ 9%	**Mean Swelling** ≤ 0.09% in thickness ≤ 0.02% in width ≤ 0.01% in length **Water Absorption** Mean ≤ 1.66% Max ≤ 1.82%
Creep Behaviour	**Known Span in use** Mean ΔS ≤ 10mm Max ΔS ≤ 13mm Mean ΔSr ≤ 5mm	**Span: 400mm** Mean ΔS ≤ 5.00mm Max ΔS ≤ 5.17mm Mean ΔSr ≤ 2.33mm
Joist Spacing	**Span: 400mm Residential** **Span: 300mm Commercial**	

NEVADA

Nevada Composite Decking.
Available in Soft Grey and Anthrazit.



Test Items	Requirement	Result
Max Load	Mean ≥ 3300 Min ≥ 3000	Mean 7716 N Min 7514 N
Deflections under 500 N	Mean ≥ 2.0mm Min ≥ 2.5mm	Mean 0.72mm Min 0.80mm
Swelling and Water Absorption	**Mean Swelling** ≤ 4.0% in thickness ≤ 0.8% in width ≤ 0.4% in length **Water Absorption** Mean ≤ 7% Max ≤ 9%	**Mean Swelling** ≤ 0.02% in thickness ≤ 0.02% in width ≤ 0.03% in length **Water Absorption** Mean ≤ 0.1% Max ≤ 0.1%
Creep Behaviour	**Known Span in use** Mean ΔS ≤ 10mm Max ΔS ≤ 13mm Mean ΔSr ≤ 5mm	**Span: 350mm** Mean ΔS ≤ 0.98mm Max ΔS ≤ 0.62mm Mean ΔSr ≤ 1.06mm
Joist Spacing	**Span: 400mm Residential** **Span: 300mm Commercial**	

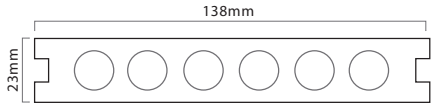
All above tests have been carried out by Intertek Testing Services according to European Standards EN 15534-1: 2014

Decking Calculator (No. of boards required)

Product	10m²	12m²	14m²	16m²	18m²	20m²	22m²	24m²	26m²	28m²	30m²	32m²	34m²	36m²	38m²	40m²	42m²	44m²	46m²	48m²	50m²
Montana	20	24	28	32	35	39	43	47	51	55	59	63	67	71	75	79	83	87	91	95	99
Arizona	18	22	26	29	33	37	40	44	48	52	55	59	63	66	70	74	77	81	84	89	92
Nevada	19	23	27	31	35	38	42	46	50	54	58	61	65	69	73	77	81	84	88	92	96

UltraShield® Naturale™

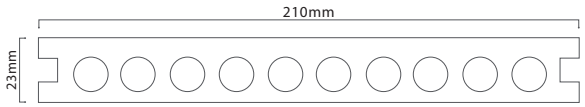
UltraShield Naturale Composite Decking.
Available in Teak, Silver Grey, Antique, Walnut and Cedar.



Test Items	Requirement	Result
Max Load	Mean ≥ 3300 Min ≥ 3000	Mean 4090 N Min 3866 N
Deflections under 500 N	Mean ≥ 2.0mm Min ≥ 2.5mm	Mean 1.14mm Min 1.19mm
Swelling and Water Absorption	**Mean Swelling** ≤ 4.0% in thickness ≤ 0.7% in width ≤ 0.3% in length **Water Absorption** Mean ≤ 7% Max ≤ 9%	**Mean Swelling** ≤ 2.40% in thickness ≤ 0.06% in width ≤ 0.08% in length **Water Absorption** Mean 1.9% Max 2.0%
Creep Behaviour	**Known Span in use** Mean ΔS ≤ 10mm Max ΔS ≤ 13mm Mean ΔSr ≤ 5mm	**Span: 350mm** Mean ΔS 2.0mm Mean ΔSr 1.5mm
Joist Spacing	**Span: 350mm Residential** **Span: 300mm Commercial**	

UltraShield® Naturale™ Wide Board

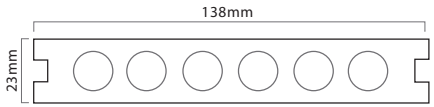
UltraShield Naturale Wide Plank Composite Decking.
Available in Old Mist and Pebble Grey.



Test Items	Requirement	Result
Max Load	Mean ≥ 3300 Min ≥ 3000	Mean 4090 N Min 3866 N
Deflections under 500 N	Mean ≥ 2.0mm Min ≥ 2.5mm	Mean 1.14mm Min 1.19mm
Swelling and Water Absorption	**Mean Swelling** ≤ 4.0% in thickness ≤ 0.7% in width ≤ 0.3% in length **Water Absorption** Mean ≤ 7% Max ≤ 9%	**Mean Swelling** ≤ 2.40% in thickness ≤ 0.06% in width ≤ 0.08% in length **Water Absorption** Mean 1.9% Max 2.0%
Creep Behaviour	**Known Span in use** Mean ΔS ≤ 10mm Max ΔS ≤ 13mm Mean ΔSr ≤ 5mm	**Span: 350mm** Mean ΔS 2.0mm Mean ΔSr 1.5mm
Joist Spacing	**Span: 350mm Residential** **Span: 300mm Commercial**	

UltraShield® Textured

UltraShield Textured Composite Decking.
Available in Sapele and Graphite.



Test Items	Requirement	Result
Max Load	Mean ≥ 3300 Min ≥ 3000	Mean 4090 N Min 3866 N
Deflections under 500 N	Mean ≥ 2.0mm Min ≥ 2.5mm	Mean 1.14mm Min 1.19mm
Swelling and Water Absorption	**Mean Swelling** ≤ 4.0% in thickness ≤ 0.7% in width ≤ 0.3% in length **Water Absorption** Mean ≤ 7% Max ≤ 9%	**Mean Swelling** ≤ 2.40% in thickness ≤ 0.06% in width ≤ 0.08% in length **Water Absorption** Mean 1.9% Max 2.0%
Creep Behaviour	**Known Span in use** Mean ΔS ≤ 10mm Max ΔS ≤ 13mm Mean ΔSr ≤ 5mm	**Span: 350mm** Mean ΔS 2.0mm Mean ΔSr 1.5mm
Joist Spacing	**Span: 350mm Residential** **Span: 300mm Commercial**	

Decking Calculator (No. of boards required)

Product	10m²	12m²	14m²	16m²	18m²	20m²	22m²	24m²	26m²	28m²	30m²	32m²	34m²	36m²	38m²	40m²	42m²	44m²	46m²	48m²	50m²
UltraShield Naturale & Textured	20	23	27	31	35	39	43	47	51	55	59	62	66	70	74	78	82	85	90	94	98
UltraShield Wide Board	13	16	18	21	23	26	28	31	34	36	39	41	44	47	49	52	54	57	59	62	65







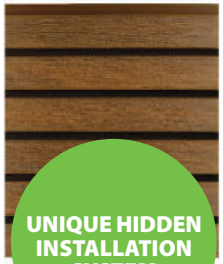
Installation is simple using our range of innovative accessories.

Treated timber battens with a minimum thickness of 22mm should be fixed to the wall at 500mm centres. The starting rail is then fixed along the bottom to give an even starting point and support the first row of cladding. Every consecutive row is then secured using the specially designed clips resulting in a seamless finish. Rubber stoppers are used behind the final row to ensure boards are kept flush when fixed with colour matching screws. Corner and edge trims are used to complete the installation.

See www.wrg.ie for full installation instructions. Do not install without reading the full instructions.

- Hidden Fixing System
- Finishing Profiles available
- 90% Recycled Material

AN ELEGANT LOW MAINTENANCE ALTERNATIVE.



NEW-UltraShield®

Contemporary Cladding

Suitable for Garden & Home

Why settle for bare brick or plastered external walls which need constant painting when you can have the contemporary look and feel of natural timber with our low maintenance composite cladding. With easy installation, plus low maintenance, and rugged durability that stands up to any weather conditions, this is the ideal finish to enhance the beauty of the exterior of your home. Installation is easy with our unique invisible clip system that creates a lasting seal between each piece. Available in Teak & Silver Grey.

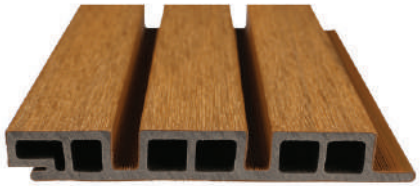
Made from the same 90% recycled material as our UltraShield Decking, our Cladding is environmentally friendly and made to last with a 25 year limited warranty.

Whiteriver ULTRASHIELD

ULTRASHIELD
25 YEAR LIMITED WARRANTY

Acc. to Whiteriver terms - see wrg.ie for full details.





Contemporary cladding teak



Contemporary cladding silver grey



Contemporary cladding walnut

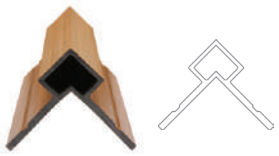
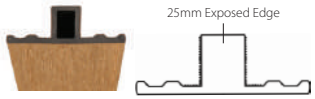
Contemporary Cladding Teak
196.5 x 25 x 2700mm - K1630006
196.5 x 25 x 3600mm - K1630001

Contemporary Cladding Silver Grey
196.5 x 25 x 2700mm - K1630106
196.5 x 25 x 3600mm - K1630101

Contemporary Cladding Walnut
196.5 x 25 x 2700mm - K1642006
196.5 x 25 x 3600mm - K1642001

5.43 linear meters of board covers 1m²

Installation & Accessories

3000mm EXTERNAL CORNER UH60 TRIM	3000mm EDGE UH59 TRIM	3000mm JOINER UH70 TRIM
K1630016 Teak - K1630116 Silver Grey K1642016 Walnut	K1630011 Teak - K1630111 Silver Grey K1642011 Walnut	K1630021 Teak - K1630121 Silver Grey K1642021 Walnut
		

STARTING RAIL	CLADDING CLIP Approx. 25 clips and screws per sq.m	RUBBER STOPPER	COLOUR MATCHING SCREWS For securing last row. Cladding should be predrilled with a countersunk hole before fixing with screws.
K1650001	K1650006	K1650011	K1650006
			
Individual lengths - 3000mm	50 per pack with fixing screws	10 per pack with fixing screws	100 per pack

IMPORTANT: Please check our cladding installation instructions on our website - technical information **www.wrg.ie**

Note: Please consult local building regulations before planning or commencing installation.



NEW-UltraShield®

Traditional Cladding

Whiteriver ULTRASHIELD

ULTRASHIELD
25 YEAR LIMITED WARRANTY

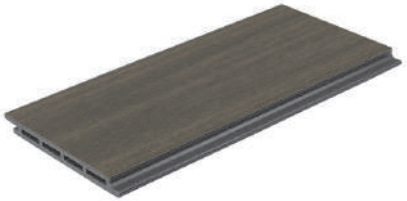
Acc. to Whiteriver terms - see wrg.ie for full details.

UltraShield wall cladding is the ultimate solution for exterior walls because it combines the toughness and longevity of a capped wood plastic composite with an engineered design. The shield gives the wall cladding unbeatable colours and textures, with highly stain & UV resistance, making it long lasting and ultra low maintenance.

Siding guards your home against harsh weather conditions and extreme temperatures. Siding protects the inside of your home from wind, rain and snow. Siding can also keep dirt and insects outside. Installing your siding correctly ensures the ultimate protection.



Traditional cladding teak



Traditional cladding silver grey



Traditional cladding walnut

Traditional Cladding Teak

142 x 13 x 2700mm - K1610006
142 x 13 x 3600mm - K1610001

Traditional Cladding Silver Grey

142 x 13 x 2700mm - K1610016
142 x 13 x 3600mm - K1610011

Traditional Cladding Walnut

142 x 13 x 2700mm - K1610056
142 x 13 x 3600mm - K1610051

7.40 linear meters of board covers 1m²

Installation & Accessories

3000mm END US44 TRIM	**3000mm JOINER US45 TRIM**	**3000mm OUTSIDE CORNER US46 TRIM**	**3000mm INSIDE CORNER US47 TRIM**
K1620001 Teak - K1620021 Silver Grey K1640021 Walnut	K1620006 Teak - K1620026 Silver Grey K1640031 Walnut	K1620011 Teak - K1620031 Silver Grey K1640011 Walnut	K1620016 Teak - K1620036 Silver Grey K1640016 Walnut
			

STARTING RAIL	**CLADDING CLIP** Approx. 25 clips and screws per sq.m	**RUBBER STOPPER**	**COLOUR MATCHING SCREWS** For securing last row. Cladding should be predrilled with a countersunk hole before fixing with screws.
K1650001	K1650006	K1650011	K1650006
			
Individual lengths - 3000mm	50 per pack with fixing screws	10 per pack with fixing screws	100 per pack

IMPORTANT: Please check our cladding installation instructions on our website - technical information **www.wrg.ie**

Note: Please consult local building regulations before planning or commencing installation.

OUR OTHER PRODUCT RANGES

We are also Ireland's leading distributor of laminate flooring, engineered real wood flooring and internal doors.
Our brochures are available in your local builder's merchant, hardware store and flooring & door specialists.

You can also download them through our website www.wrg.ie.



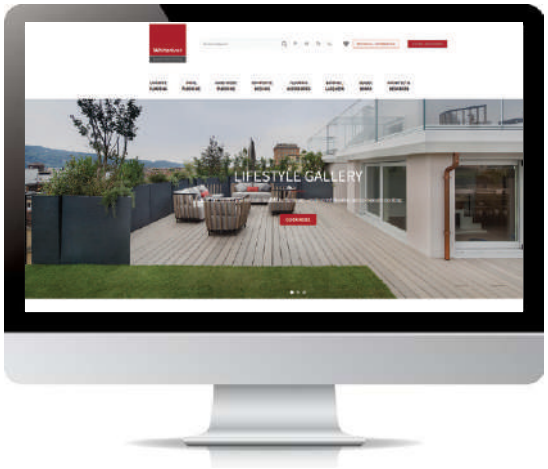


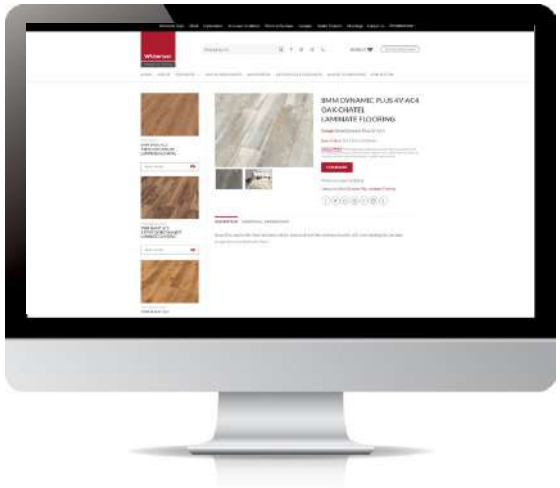




OUR WEBSITES

Visit our websites for the latest product updates, inspirational galleries and brochures.
www.wrg.ie (Decking & Flooring) and www.seadec.ie (Internal Doors & Mouldings)





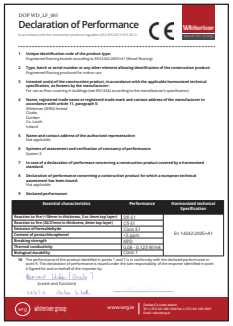


QUALITY & ASSURANCE

Full care & maintenance guides, DOP's, specification sheets and installation instructions are available through our websites and by request from our sales team sales@wrg.ie / seadec@wrg.ie



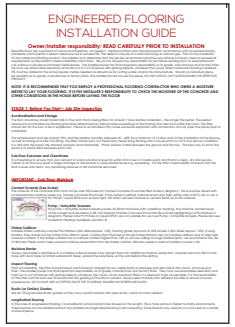
CARE AND MAINTENANCE



DECLARATION OF PERFORMANCE



SPECIFICATION SHEET



INSTALLATION INSTRUCTIONS

F.A.Q.'S

IS WHITERIVER DECKING REALLY LOW MAINTENANCE?
Yes there is no need for any annual treatment but your deck needs to be cleaned regularly. See Care & Maintenance for further information. For the best maintenance its advised to wash with soap based cleaner, gentle power washing is allowed but not advised on Ultrashield. North and east facing decks as well as decks where there is planting/leaves nearby will require more frequent attention.

DO WHITERIVER DECKS REQUIRE VENTILATION & DRAINING?
Yes, it is similar to timber and it needs ventilation to the sub construction to dry out after getting wet. Air should have an entry point and exit point to the sub construction. A lack of ventilation can cause the deck to swell over time over time and affect the lifespan/integrity of the sub-construction if timber.

DO WHITERIVER DECKS SPLINTER?
Whiteriver decks do not splinter.

DO WHITERIVER DECK BOARDS CUT LIKE WOOD?
Yes you can use the same tools that you would use for a wooden deck.

DOES WHITERIVER DECK COST MORE THAN WOOD?
In the short term it does, however when you compound the maintenance you have to do on wood every year the costs really add up. In a short time you will be able to see all the time and money you would have saved by using Whiteriver Decking.

HOW IS THE DECK SECURED?
With hidden clips, see fitting instructions.

WHAT JOIST SPACES DO YOU USE?
For domestic decks we recommend 400mm centres for Portland and 350mm for Ultrashield and for a commercial deck or heavy traffic area we recommend 300mm.

WILL THE DECK FADE BECAUSE OF SUN EXPOSURE?
You can expect that there will be minor fading of up to 20%. The majority of this will happen over the first 10-12 weeks.

IS WHITERIVER DECKING IMPERVIOUS TO MOULD?
Whiteriver decking has mould inhibitors that prevent mould growing on the inside of the board. Surface mould can still happen, however it will never penetrate the board itself. Mould and mildew can be washed off, or treated with a cleaner called AlgoClear, please follow instructions fully.

DOES WHITERIVER DECKING HAVE A WARRANTY?
Yes, there is a 10 year residential limited warranty on our Portland range and 25 year residential limited warranty on our UltraShield ranges. See website for full details www.wrg.ie

WHAT SHOULD I DO WITH THE ULTRASHIELD SCRAP PIECES?
We recommend that you can use these in a variety of ways such as making planters, sand boxes, raised flowers beds, shelving etc.

CAN THERE BE STAINING?
Staining can occur thus it is important to clean up any spillage as soon as it happens.

CAN I FIX DECK TO STEEL?
Yes you can but please bear in mind that steel can expand and contract. Specific Steel Joist installation kits are available and joists must be pre drilled. Please see detailed fitting instructions to find out more on www.wrg.ie.

HOW DO I FIT HANDRAILS?
Handrails and posts must be fixed to the substructure - see detailed fitting instructions on www.wrg.ie.

IS IT SCRATCH-RESISTANT?
Whiteriver deck can present some scuff marks and scratches if negative contact is made. We recommend using castor cups under furniture legs.

HOW SHOULD I STORE AND HANDLE MY DECKING?
Whiteriver decks should be stored on site for at least 3 days before fitting in a dry flat area and under cover.

CAN STATIC OCCUR?
Static electricity is a naturally occurring phenomenon and may occur on composite decks depending on environmental conditions. Static in composite boards will generally decrease as boards age. Dryer vents and heat pumps in the area of the decking may also contribute to the generation of static.

CARE AND MAINTENANCE

GENERAL CLEANING: Keep it clean and your Whiteriver composite decking will reward you with years of low maintenance pleasure. Periodic cleaning of Whiteriver composite decking is suggested, even if it appears clean, as it is important to prevent the build-up of pollen / debris that can cause mould. If unsure about the product being used to clean / remove stains from your deck, it is recommended that you test a small area in an inconspicuous place to determine if the product will cause any unwanted discolouration. Below is a more detailed instructions for taking care of your deck.

DIRT, GRIME AND DEBRIS

Whiteriver recommend cleaning your deck on a regular basis in order to remove debris, pollen, and dirt. Surface debris should be sprayed off with a hose. Normally all you need is a soft non-metal deck brush, warm water and a mild household cleaner such as liquid soap or WOCA Exterior Cleaner. Scrubbing in the direction of the grain is best to remove dirt and debris. Thoroughly rinse off with a garden hose. If there is heavier dirt, you can use a low bar pressure washer with wide fan tips at a safe distance using a maximum pressure of 1500psi at a minimum distance of 300mm (12"). Always wash in the direction of the grain along the length of the board. **We do not recommend power washing Ultrashield decking.**

MOULD, MILDEW, ALGAE ETC

Mould and mildew are very common and occurs periodically in everyday environments. Therefore, surface mould and mildew can appear on the deck if decaying organic materials such as, but not limited to, wood, leaf and pollen are present along with elevated temperatures, air and water. Therefore, we can only minimise the occurrence by removing these decaying organic materials as quick as possible. If mould and mildew are present use warm soapy water or WOCA Exterior Cleaner and a soft non-metal scrub brush to clean. For decks with a lot of mould a cleaner called AlgoClear can be used. It will help minimise the growth of mould and mildew. Installing your decking without the required fall can lead to more frequent appearance of mould/mildew/ algae etc as standing water will remain on the deck surface for a longer period of time than normal.

TANNINS / STAINS

Tannins can form when organic material gets stuck within the gaps of the deck and water starts to pool under it. Therefore, it is best to remove the debris within gaps with a garden hose, spatula, or soft brush. Keeping the gaps clean will reduce the chances of tannins forming, leaving your deck cleaner.

OIL, GREASE OR FOOD

All oil / grease / food spills must be removed promptly. To clean use warm soapy water and a soft non-metal scrub brush. Oil and grease may require an all-purpose cleaner if warm soapy water and soft non-metal brush do not work.
There are several commercial cleaners available for oil and grease. Try cleaning first in an inconspicuous place and ensure you are happy before proceeding. Be sure to check with manufacturer's on which cleaners are appropriate to use on your deck.

PROTECTION

We suggest a mat under your BBQ to protect from grease stains, and plastic protectors under metal furniture or planters to prevent gouging and potential rust stains.

WATER MARKING:

Initially after installation of our Portland Collection, some water marking may occur on the surface. This is due to some tannins rising to the surface as it adjusts to UV exposure when the surface gets wet. This can be cleaned away with a bristle deck brush and hot water. Generally 1 clean (occasionally 2) is sufficient to remove it.

WEATHERING

As Composite Decking is a wood based product it can experience a natural process which is called Extractive Bleeding. This can cause a temporary discolouration of the deck which will weather away. It can take 10-12 weeks for this to happen depending on the location etc.

SNOW AND ICE

As with any outdoor surface, Whiteriver decks can become slippery in winter weather. Take extra care when walking on wet, icy and snowy conditions. Use calcium chloride or rock salt to melt the snow and ice. Build-up of calcium chloride or rock salt may occur leaving a white residue, which can be easily removed with warm soapy water and a soft non-metal scrub brush.

SCRATCHES AND HEAVIER STAINS (Portland Range only)

Scratches or difficult stains can be removed by using a wire brush or sanding with 80-100 grit sandpaper. When brushing always run with the grain. It will take 8-10 weeks for the repaired area to blend back in with the rest of the deck.
Do not sand Ultrashield Decking.

MASONRY CONSTRUCTION

During masonry construction, renovation or painting the deck must be covered AT ALL TIMES preferably with a sheet of tarpaulin or construction grade plastic film. Mineral deposits, left over from construction, can mix with water and evaporate leaving deposits behind which create a white or haze on the deck surface. To prevent this ensure that masonry / cement construction is set properly before ever installing the decking material.
If mineral deposits are left on the deck surface, regular maintenance is required in order to maintain the original look of the deck.

IRREGULAR HEAT SOURCES / FIRE

Composite decking has the tendency to retain heat whenever presented directly or indirectly with it. Irregular heat sources, such as, but not limited to fire pits, fire places, barbecue grills, and fire may damage the surface of the decking. Proper caution should be taken with irregular heat sources and fire to ensure no damage occurs to the deck.

STATIC

Static electricity can be reduced with the use of Heavy Duty Staticide which is a non-toxic clear treatment residual substance on the deck.

Whiteriver

composite for living

www.wrg.ie