# Whiteriver

decks for living

# composite decking

the essential guide 2019



NEVADA ANTHRAZIT 140 X 25 X 3600MM

# PEACE OF MIND

# Why Whiteriver Composite

**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.



# What is composite

Whiteriver Composite Decking products are made using HDPE and wood, creating a revolutionary composite of improved, userfriendly material that outperforms other traditional pure wooden and plastic materials. 60% wood fibre, 30% HDPE and 10% additives / pigments.

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 minimal maintenance compared with traditional timber and comes with a 10 year limited warranty (Ultrashield 15 years).

Whiteriver Composite Decking was developed to meet the exceptional high standard required for ourdoor living today. Our decking is ideal for the construction of board walks, commercial and domestic decks, marinas 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.

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# PORTLAND MONTANA

Montana Composite Decking is analogous of the State its named after. "Big Sky Country" or more commonly known as 'Montana'. 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.\*



 $\triangleleft$  Reversible Boards  $\checkmark$ 



FRONT ELEVATION

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





MONTANA FIRED EARTH 135 X 25 X 3600MM

# SMOOTH & RELIABLE



WHITERIVER



MONTANA SOFT GREY 135 X 25 X 3600MM

## ΜΟΝΤΑΝΑ

# ORIGINAL & IMPRESSIVE



ΜΟΝΤΑΝΑ

MONTANA FIRED EARTH 135 X 25 X 3600MM

# ASPIRATIONAL



MONTANA FIRED EARTH 135 X 25 X 3600MM

ΜΟΝΤΑΝΑ

# INVITING



ARIZONA

ARIZONA SOFT GREY 146 x 23 x 3600mm

# ELEGANCE & STYLE

# 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.





FRONT ELEVATION

Board Dimensions: 146x23x3600mm Board Coverage: 0.544m2 (1m<sup>2</sup> = 1.84 boards)





NEVADA

NEVADA SOLID ANTHRAZIT 140 X 25 X 3600MM

# ATTRACTIVE & SLEEK

# 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 appetizing side.



140mm 25mm

### FRONT ELEVATION

Board Dimensions: 140x25x3600mm Board Coverage: 0.522m2 (1m<sup>2</sup> = 1.92 boards)





Soft Grey Smooth - Side 2

Anthrazit Ribbed - Side 1

Anthrazit Smooth - Side 2











NEVADA

NEVADA SOFT GREY 140 X 25 X 3600MM

# ADVANCED DURABILITY



NEVADA SOLID ANTHRAZIT 140 X 25 X 3600MM

NEVADA

# AFFORDABLE BEAUTY

# Portland Deck Components



START/END CLIP



CLIPS & SCREWS



MOVE STOP CLIP

One clip to be installed at the center point of each board to control even expansion & contraction along the length of the board.

### **PORTLAND DECK BOARDS**

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

### **JOIST COMPONENTS**

Hardwood Joist			70 x 45 x RL
Composite Joist			40 x 25 x 3000mm
Aluminium Joist			38 x 38 x 3000mm
Aluminium Joist Support Stainless Steel	-	Stainless Steel 362mm for 400mm centres	362mm
Aluminium Joist Corner Bracket Stainless Steel			

### **FIXING COMPONENTS**

Installation Kit for Timber Joist		Includes 50 Clips & Screws and 8 Movestop Clips (Covers 2.5m2)
Start/End Clip for Timber Joist		25 per pack - For first & last rows
Installation Kit for Steel & Aluminium Joist		Includes 50 Clips & Screws and 8 Movestop Clips (Covers 2.5m2)
Start/End Clip for Aluminium Joist	•	25 per pack - For first & last rows

### **PORTLAND TRIM OPTIONS**

Stair Tread Smooth finish Montana & Nevada Profiles Only	140mm	140 x 25 x 3600mm
140 x 25mm Fascia Solid Plank Fired Earth, Anthrazit, Soft Grey	E	140 x 25 x 3600mm
130 x 10mm Fascia Solid Plank Fired Earth, Anthrazit, Soft Grey	E	130 x 10 x 3600mm
Corner Wrap	це е е 40mm	40 x 40 x 3600mm
End Pieces		Varies





FASCIA BOARD



STAIR TREAD

### **PORTLAND RAILING COMPONENTS**

### **PORTLAND POST COMPONENTS**

	CURVED HANDRAIL Curved Profile 100 x 50 x 1800mm		POST END CAPS *Round or Square
-	BASERAIL/ HANDRAIL Square Profile 90 x 45 x 1800mm		POST 120 x 120 x 1200/2400mm
-	SPINDLES Including Spigots & Screws 50 x 50 x 900mm		POST FLANGE Hides Post Bracket
	HANDRAIL / BASERAIL BRACKET 10 Per Pack	0 0 0 0	POST BRACKET Must be fixed to substructure Includes Screws

POST END CAPS <b>*Round or Square</b>	-
POST 120 x 120 x 1200/2400mm	
POST FLANGE Hides Post Bracket	
POST BRACKET Must be fixed to substructure Includes Screws	



### **Fitting Posts & Railings**

## NOTE: IT IS IMPORTANT THAT COMPOSITE MATERIAL IS PRE-DRILLED PRIOR TO INSTALLATION OF ACCESSORIES.

### Step 1

As the diagram 2.1 below shows, firstly use expansile 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 two 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:



### Step 2

After fixing the posts, please insert the post flange to the bottom of the posts; then mark the position for the top and bottom Handrail on each posts. This is to prevent water accumulating within. Fix the handrail bracket on the marked position on the post, just as diagram 2.2 below shows. We recommend that the spacing between two posts should not be more than 1800mm.



### Step 3

As diagram 2.3 below shows: fix the spindle bracket / 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. Use external grade silicone adhesive in the spigot to fix securely and avoid any spindle movement.



### Step 4

Please install minimum 2 pieces of spindles below the bottom handrail according the installation of spindles in diagram 2.4. These pieces must be spaced evenly to support the overall handrail section and avoid warping.





### Step 5

Install the post cap on the top of posts. 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.





### ULTRASHIELD

Whiteriver

# INTRODUCING ULTRASHIELD



# WHY ULTRASHIELD

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 smooth 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 soft fibres that allow for greater strength and durability, and best of all its 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, Splitting and Colour Fading.

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.





ULTRASHIELD

SILVER GREY 138 X 23 X 3600MM

# LUXURIOUS & LONGEVITY

# ULTRASHIELD

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<sup>2</sup> = 1.95 boards)



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



WALNUT 138 X 23 X 3600MM

# BRILLIANT & SUPREME



ANTIQUE 138 X 23 X 3600MM

# RELAX & INSPIRE



CEDAR 138 X 23 X 3600MM

# ENDURING & EXQUISITE



WALNUT 138 X 23 X 3600MM

# ORIGINAL & IMPRESSIVE



ULTRASHIELD

WALNUT 138 X 23 X 3600MM

# CONTEMPORARY & FUNKY

### WHITERIVER



ANTIQUE 138 X 23 X 3600MM

# COSY & TRANQUIL



ULTRASHIELD

CEDAR 138 X 23 X 3600MM

# TOUGH & RESILIENT



CLEAN & CALM



ULTRASHIELD

ANTIQUE 138 X 23 X 3600MM

# ENCHANTING

### WHITERIVER



ANTIQUE 138 X 23 X 3600MM

# C A P T I V A T I N G



SILVER GREY 138 X 23 X 3600MM

# O R N A T E



ANTIQUE 138 X 23 X 3600MM

# R E F R E S H I N G



ULTRASHIELD

TEAK 138 X 23 X 3600MM

# SUMPTUOUS



# SPLENDID

# Ultrashield Deck Components



START/END CLIP



CLIPS & SCREWS



MOVE STOP CLIP

One clip to be installed at the center point of each board to control even expansion & contraction along the length of the board.

### **ULTRASHIELD DECK BOARDS**



### **JOIST COMPONENTS**

Hardwood Joist			70 x 45 x RL
Composite Joist			40 x 25 x 3000mm
Aluminium Joist		۴ ۳	38 x 38 x 3000mm
Aluminium Joist Support Stainless Steel	-	Stainless Steel 362mm for 400mm centres	362mm
Aluminium Joist Corner Bracket Stainless Steel			

### FIXING COMPONENTS

Installation Kit for Timber Joist		Includes 50 Clips & Screws and 8 Movestop Clips (Covers 2.5m2)
Start/End Clip for Timber Joist		25 per pack
Installation Kit for Steel & Aluminium Joist	-	Includes 50 Clips & Screws and 8 Movestop Clips (Covers 2.5m2)
Start/End Clip for Aluminium Joist		25 per pack
Stainless Steel Coloured Srews		100 screws per pack Colour coded screws for fixing fascia board Note: Not Available in Cedar

### **ULTRASHIELD TRIM OPTIONS**

Solid Stair Tread		138 x 23 x 3600mm
180 x 15mm Fascia Solid Plank	180mm	180 x 15 x 3600mm
Corner Wrap	Here France	40 x 40 x 3600mm
End Pieces	 <b>END CAP</b> Matching colour to Ultrashield	Varies



FASCIA BOARD





STAIR TREAD

32MM - 48MM ADJUSTABLE PEDESTAL FOR DECKING	32MM - 48MM ADJUSTABLE PEDESTAL FOR PAVING	51MM-84MM ADJUSTABLE PÉDESTAL UNIVERSAL	86MM - 120MM ADJUSTABLE PEDESTAL UNIVERSAL	150 - 180MM ADJUSTABLE PEDESTAL	51MM - 84MM ADJUSTABLE PEDESTAL For use against wall	86MM - 120MM ADJUSTABLE PEDESTAL For use against wall
PV 3/5/CP+ PRICE INCLUDES CP+ SUPPORT PLATE FOR JOISTS	PV 3/5/C3/4T PRICE INCLUDES C3/4T SUPPORT PLATE FOR PAVING	PV 5/9 PRICE <u>EXCLUDES</u> SUPPORT PLATE	<b>PV 9/13</b> PRICE <u>EXCLUDES</u> SUPPORT PLATE	PV 15/19 PRICE <u>EXCLUDES</u> SUPPORT PLATE	AK 5/9 FOR USE AGAINST WALL PRICE EXCLUDES SUPPORT PLATE	AK 9/13 PRICE <u>EXCLUDES</u> SUPPORT PLATE
K1420001	K1420011	K1420002	K1420003	K1420014	K1420004	K1420013
JOIST SUPPORT PLATE WITH GUIDE	FLAT SUPPORT PLATE WITHOUT GUIDE	PAVING SUPPORT PLATE	FRICTION PAD	35MM PEDESTAL EXTENSION PIECE	100MM PEDESTAL EXTENSION PIECE	Made From Recycled Material
JOIST SUPPORT PLATE WITH GUIDE	FLAT SUPPORT PLATE WITHOUT GUIDE	PAVING SUPPORT PLATE	FRICTION PAD	35MM PEDESTAL EXTENSION PIECE	100MM PEDESTAL EXTENSION PIECE	Made From Recycled Material Weatherproof Weatherproof Temperature Resistant between -25 / + 70°C
JOIST SUPPORT PLATE WITH GUIDE	FLAT SUPPORT PLATE WITHOUT GUIDE	PAVING SUPPORT PLATE	FRICTION PAD	SSMM PEDESTAL EXTENSION PIECE	100MM PEDESTAL EXTENSION PIECE	Made From Recycled MaterialMade From Recycled MaterialMade From Recycled MaterialMaterianWeatherproofMaterian<
JOIST SUPPORT PLATE WITH GUIDE	FLAT SUPPORT         PLATE WITHOUT         GUIDE	PAVING SUPPORT PLATE	FRICTION         ADD         Image: ADD of the state	Source <td>100MM PEDESTAL         EXTENSION         PIECE</td> <td>Adde From Reycled Material Weatherproof Weatherproof Temperature Resistant between -25 / + 70°C Certificates CSTC / CSTC No., DE, ATA</td>	100MM PEDESTAL         EXTENSION         PIECE	Adde From Reycled Material Weatherproof Weatherproof Temperature Resistant between -25 / + 70°C Certificates CSTC / CSTC No., DE, ATA





**SOLIDOR**<sup>+</sup> are a European manufacturer of high quality pedestals for decking and concrete paving. The pedestals can be continuously adjusted in height from 32mm 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.

# WHICH PEDESTAL?

1. Establish the overall height your finished deck needs to be. To calculate the pedestal height deduct the deck board thickness (Montana & Nevada x 25mm / Arizona & Ultrashield x 23mm) plus the thickness of the joist you are using.

Choose a pedestal with a height range to make up the difference between ground level and the bottom of your joist.
 32mm to 48mm, 51mm to 84mm, 86mm to 120mm, 150mm to 180mm
 The 51mm, 86mm & 150mm pedestals can be extended up to a max of 1000mm by adding 35mm & 100mm "extension pieces".

3. Choose the correct "support plate" for the project – this is the top part of the pedestal: CP+ for decking joists up to 75mm wide, CO for decking joists over 75mm, C3/4 T for paving slabs

Note: Only the 32mm – 48mm pedestals come complete with support plates. Rubber "Friction Pads" are recommended on top of support plate for paving application to reduce friction between the plastic pedestal and the slab and can also be used to for slight level adjustments.

# **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 center 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** 

Suitable for timber and alluminium Joists



### BASED ON THE ABOVE DIAGRAMS WE RECOMMEND APPROX. 4-7 PEDESTALS PER M2

Pedestal spacing can be from 500mm to 1000mm along the joist length, however depends on the application and joist strength.

# **Deck Preparation**

### **Planning Your Deck**

Designing and building a deck can be a fun and 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 and 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) Decide on what direction you would like the boards to run
- (5) Which substructure will I use: Hardwood, \*Steel or Aluminium joists.
   \*Steel joists > 2mm must be pre drilled and specific Steel Joist Installation Kits must be used.

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

### **Location & 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 do I want it? When deciding on the size of deck you need to take into account that the deck boards are 3.6m in length. You can make a deck any length, but you do not want to have a deck with very short end boards.

### **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 • Building Line • Safety Goggles

### General

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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 to 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 the entire deck and any fixed objects/obstructions and also a 5mm spacing must be left at each short board end to allow for normal seasonal movements.

See full instructions on **www.wrg.ie** before starting.



### 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 any home. First decide on the direction you would like the boards to run. Will there be steps? Would you like hand rails around it? What colour will suit your garden and house best?

### **Ventilation and Site Conditions**

The site should be free draining and there should be a fall of at least 5% to let water drain off. 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 is the key to your deck performing well in the long term.

For non screed surfaces, plan a minimum of 100 mm (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 subconstruction.

For screed surfaces, we recommend a minimum clearance of 100mm (4 inches) from the ground level. In this case, the joist should be built in two criss cross layers 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. If there is any dampness under the deck, it can lead to mould build up underneath the deck and excessive 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.



# 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 acrosss the boards creates an illusion of width. Would you rather the deck looked longer or wider? Also, most of our deck boards contain grooves which affect both the slip resistance qualities in particular directions and also the aesthetic of the board. Board lengths are 3.6 metres long.



# Composite Decking Installation Do's & Dont's



Please read full instruction before starting installation. 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.



A structurally sound sub frame must be installed ensuring there is no movement prior to fixing boards to the joists. A 5% 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 effect 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.



Maximum overhang 20mm



Joists must be set to maximum 400mm centres for stability and to avoid warping.



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 and warping.

# Deck Quick Installation Guide

### Before you start here are a few tips:

- Make sure you have ordered enough material, so as not to be short. Allow for about 5% waste.
- Store decking on site for at least 3 days, raised off the ground, lying flat and keep it dry.
- Read full set of instructions on www.wrg.ie before starting.
- Ensure there is adequate ventilation under deck. Air should have an entry point and exit point to the subconstruction.
- Make sure you allow for expansion of the decking. Expansion
  must be allowed on all butt ends including where the deck
  meets posts and other fixed objects. No objects e.g. post
  and railing systems etc. should be fixed directly to/through
  the deck as this will prevent seasonal movement. These should
  be fixed to the substructure.
- There should be good drainage under deck and the should be a minimum fall of at least 5% to allow for water drainage.
- It is essential to use a movestop 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).



Secure start/end clips in line with each joist ensuring that you have allowed an expansion gap of at least 10mm between the first row of deck boards and wall. If two end boards meet on a joist use a start/end clip on each board. 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. 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.



Insert a standard clip into each deck board in line with joist and screw fully but do not overtighten.



It is very important to install one movestop clip per board onto the joist nearest the centre of the board. This helps maintain a consistent expansion gap. **Note: The Clip has teeth on one side only. Each board should only be caught once with the teeth.** 



All clips should be on their own independent joists i.e. when two board ends meet each other there must be a sister joist. The end of each board must sit on its own joist with a gap of 5-10mm between joists to allow leaves, dirt and debris etc fall through the deck boards as per image above.



Where the short ends of the deck boards meet, ensure that you leave a gap of 5mm to allow for seasonal expansion and contraction.



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.



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 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. If a wall or house prevents sliding the board in, fix the last board using the start/end clip. Next insert fixing clips into groove of board and then slide them along with a screwdriver into position. (See Insert)



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 300mm – the fascia board must be pre drilled 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.** 



Alternatively place end caps in front of any exposed hollow boards ends and push in as shown. A mallet could be used as well to push in the end caps. A dab of external silicone sealant should be used on the end cap or inside the holes of the board in order to secure the end caps better.



ULTRASHIELD

TEAK 138 X 23 X 3600MM

# MONTANA

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



# ARIZONA

Arizona Composite decking. Available in Fired Earth, Anthrazit and Soft Grey.



# NEVADA

Nevada Composite decking. Available in Fired Earth and Anthrazit.



# ULTRASHIELD

Ultrashield decking. Available in Teak, Silver Grey, Antique, Walnut and Cedar.



Test Items	Requirement	Result
Max Load	Mean ≥ 3300 Min ≥ 3000	Mean 4172 N Min 4075 N
Deflections under 500 N	Mean ≤ 2.0mm Min ≤ 2.5mm	Mean 1.11mm Min 1.14mm
Swelling and Water Absorption	Mean Swelling $\leq 4\%$ in thickness $\leq 0.8\%$ in width $\leq 0.4\%$ in length Water Absorption Mean $\leq 7\%$ Max $\leq 9\%$	Mean Swelling $\leq 0.08\%$ in thickness $\leq 0.02\%$ in width $\leq 0.01\%$ in lengthWater AbsorptionMean $\leq 1.79\%$ Max $\leq 1.98\%$
Creep Behaviour	Known Span in use Mean $\Delta S \le 10$ mm Max $\Delta S \le 13$ mm Mean $\Delta Sr \le 5$ mm	<b>Span: 400mm</b> Mean $\Delta S \le 3.29$ mm Max $\Delta S \le 3.53$ mm Mean $\Delta Sr \le 0.74$ mm

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 $\leq$ 4% in thickness $\leq$ 0.8% in width $\leq$ 0.4% in lengthWater AbsorptionMean $\leq$ 7%Max $\leq$ 9%	Mean Swelling 0.09% in thickness 0.02% in width 0.01% in length Water Absorption Mean $\leq 1.66\%$ Max $\leq 1.82\%$					
Creep Behaviour	<b>Known Span in use</b> Mean $\Delta S \le 10$ mm Max $\Delta S \le 13$ mm Mean $\Delta Sr \le 5$ mm	<b>Span: 400mm</b> Mean ΔS 5.00mm Max ΔS 5.17mm Mean ΔSr 2.33mm					

Test Items Requirement Result		Result	Test Items	Requirement	Result			
Max Load	Mean ≥ 3300 Min ≥ 3000	Mean 7716 N Min 7514 N	Max Load	Mean ≥ 3300 Min ≥ 3000	Mean 4090 N Min 3866 N			
Deflections under 500 N	Mean ≥ 2.0mm Min ≥ 2.5mm	Mean 0.72mm Min 0.80mm	Deflections under 500 N	Mean ≥ 2.0mm Min ≥ 2.5mm	Mean 1.14mm Min 1.19mm			
Swelling and Water Absorption	$\label{eq:states} \begin{array}{l} \mbox{Mean Swelling} \\ \leq 4\% \mbox{ in thickness} \\ \leq 0.8\% \mbox{ in width} \\ \leq 0.4\% \mbox{ in length} \\ \mbox{Water Absorption} \\ \mbox{Mean} \leq 7\% \\ \mbox{Max} \leq 9\% \end{array}$	Mean Swelling 0.02% in thickness 0.02% in width 0.03% in length Water Absorption Mean 0.1% Max 0.1%	Swelling and Water Absorption	$\begin{array}{l} \textbf{Mean Swelling} \\ \leq 4\% \text{ in thickness} \\ \leq 0.7\% \text{ in width} \\ \leq 0.3\% \text{ in length} \\ \textbf{Water Absorption} \\ \textbf{Mean} \leq 7\% \\ \textbf{Max} \leq 9\% \end{array}$	Mean Swelling 2.4% 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 $\Delta S \le 10$ mm Max $\Delta S \le 13$ mm Mean $\Delta Sr \le 5$ mm	n Span in use $\Delta S \leq 10$ mmSpan: 350mm Mean $\Delta S 0.98$ mm Max $\Delta S 0.62$ mm $\Delta Sr \leq 5$ mm $\Delta Sr \leq 5$ mmMean $\Delta Sr 1.06$ mm		Known Span in use Mean $\Delta S \le 10$ mm Max $\Delta S \le 13$ mm Mean $\Delta Sr \le 5$ mm	<b>Span: 350mm</b> Mean ΔS 2.0mm Mean ΔSr 1.5mm			

ronment according to BS 7976

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

# **Slip Testing**

Smooth Side	Ribbed Side					
Slip tests carried out in wet/dry environment according to BS 7976 part II. Results available on request	Slip tests carried out in wet/dry environment according to BS part II. Results available on request					
Grooved Side (6 Lines)	Grooved Side (6 Lines)					
Slip tests carried out in wet/dry environment according to BS 7976 part II. Results available on request	Slip tests carried out in wet/dry environment according to BS part II. Besults available on request					

Smooth Side
Slip tests carried out in wet/dry environment according to BS 797 part II. Results available on request

**Ribbed Side** 

Slip tests

Smooth Side

Slip tests carried out in wet/dry environment according to BS 7976 part II. Results available on request

Wood Grain Side

Slip tests carried out in wet/dry environment according to BS 7976 part II. Results available on request

# Decking Calculator (No. of boards required)

Product	10m <sup>2</sup>	12m <sup>2</sup>	14m <sup>2</sup>	16m <sup>2</sup>	18m <sup>2</sup>	20m <sup>2</sup>	22m <sup>2</sup>	24m <sup>2</sup>	26m <sup>2</sup>	28m <sup>2</sup>	30m <sup>2</sup>	32m <sup>2</sup>	34m <sup>2</sup>	36m <sup>2</sup>	38m <sup>2</sup>	40m <sup>2</sup>	42m <sup>2</sup>	44m <sup>2</sup>	46m <sup>2</sup>	48m <sup>2</sup>	50m <sup>2</sup>
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	20	23	27	31	35	39	43	47	51	55	59	62	66	70	74	78	82	85	90	94	98

# 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 adviced to wash with a power washer.

#### DO WHITERIVER DECKS REQUIRE VENTILATION & DRAINING

Yes, it is similar to timber and it needs ventilation to the subconstruction to dry out after getting wet. Air should have an entry point and exit point to the subconstruction. A lack of ventilation can cause the deck to swell over time.

### DO WHITERIVER DECKS SPLINTER

No Whiteriver decks do not splinter.

### DO WHITERIVER DECK CUT LIKE WOOD

Yes you can use the same tools that you would use for a wood 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 IT SECURED

With hidden clips, see fitting instructions.

### WHAT JOIST SPACES DO YOU USE

For domestic decks we recommend 400mm centres and for a commercial deck or heavy traffic area we recommend 300mm. For elevated decks above ground level of 400mm, we recommend centres of 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.

### DOES WHITERIVER DECKING HAVE A WARRANTY

Yes there is a 10 year residential limited warranty on all our decking against rotting, splits, splintering and insects. (Ultrashield 15 years)

### WHAT SHOULD I DO WITH THE 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

Hand rails 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.

### **STORAGE & HANDLING**

Whiteriver decks should be stored on site for at least 3 days before fitting in a dry flat area and under cover.

### STATIC

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.

# **DECK 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 instruction for taking care of your deck. You will see that there are some different methods for cleaning Ultrashield which has a protective cover .

### PORTLAND COLLECTION (MONTANA, ARIZONA, NEVADA)

#### **DIRT & GRIME**

Whiteriver recommend cleaning your deck on a regular basis in order to remove debris, pollen, and dirt. Normally all you need is a 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. Thoroughly rinse off with a garden hose. If there is heavier dirt, you can use a low pressure washer with wide fan tips at a safe distance using a maximum pressure of 1500psi at a minimum distance of 250mm (10")

#### **MOULD & MILDEW**

Mould and mildew are very common and will thrive and grow where there is water, dirt, leaves, grass, wood and any decaying debris. By regular washing with Woca Exterior Cleaner, it helps to minimise the growth of mould and mildew and also helps to avoid staining.

#### 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.

#### **TANNINS (STAINS)**

As with all products containing wood, tannin stains can occur. Tannins can form when organic material such as leaves, seeds and other debris get stuck between the gaps in the boards of the deck and water starts to pool under it. You can use a garden hose or a spatula to keep the gaps clean. Keeping the gaps clean will help to keep your deck looking good.

#### **OIL & GREASE**

A quick clean-up is best in order to clean grease or oil stains. If this does not work, there are several commercial cleaners available for oil and grease. It is important to follow the manufacturer's instructions, try it first in an inconspicuous place and ensure you are happy before proceeding. After cleaning the deck the colour may have lightened, it will take 8-10 weeks for the sun to match the remaining 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.

#### SCRATCHES AND HEAVIER STAINS

Scratches or difficult stains can be removed by using a wire brush or sanding with 80-100 grit sandpaper. When brushing always run with grain. It will take 8-10 weeks for the repaired area to blend in with the rest of the deck.

### SNOW & 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. You can use a shovel or brush to remove snow or ice. Calcium chloride or rock salt will melt ice on decking. Rinse off when first practical.

### STATIC

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

## **ULTRASHIELD**

#### **DIRT AND DEBRIS**

Surface debris should be sprayed off with a hose. Use warm water with liquid soap and a soft non-metal scrub brush to remove dirt and debris within the embossing pattern. Scrubbing in the direction of the grain is best. If there is heavier dirt, you can use a low pressure washer with wide fan tips at a safe distance using a maximum pressure of 1500psi at a minimum distance of 300mm (12")

#### TANNINS

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 from forming leaving your deck cleaner.

#### ICE AND SNOW

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 watr and a soft non-metal scrub brush.

### 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.

### **OIL/ GREASE/ FOOD**

All oil / grease / food spills must be removed promptly. To clean use warm soapy water and a soft non-metal scrub brush. Grease and oil may require an all purpose cleaner if warm soapy water and soft non-metal brush brush do not work. Be sure to check with manufacturer's on which cleaners are appropriate to use on your deck.

#### MOULD AND MILDEW

Mould and mildew occurs periodically in everyday environments. Therefore, surface mould and mildew can appear on the deck if decaying organic materials such as, but are not limited to, wood, leaf decay and pollen are present along with elevated temperatures, air and water. Therefore, we can only minimize the occurrence by removing these decaying organic materials as quick as possible. If mould and mildew are present use warm soapy water and a soft non-metal scrub brush to clean.

#### **IREGULAR HEAT SOURCES / FIRE**

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

#### MASONRY CONSTRUCTION

During masonry construction renovation or painting the deck must be covered AT ALL TIMES preferably with a sheet or tarpaulin or construction grade plastic film. Mineral deposits, left over from construction, can mix with water and evaporate leaving deposits behind which creates a white/haze on the deck surface. To prevent this problem 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.

### STATIC

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

# Whiteriver decks for living



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