

Technical Installation Manual

Dura Deck® Inspire



Dura Deck® Inspire 1.8 metre long porcelain planks achieve the look of traditional timber without compromising on strength and resistance.

This Technical Manual contains guidance relating to the installation of your new decking and additional technical information regarding the product specification. To ensure you get the best results from your Dura Deck® Inspire products, we recommend working with a professional contractor with previous decking installation experience.

If you require any further information or support, please call us on +44 (0) 1255 443 110 or email info@duracomposites.com where one of our knowledgeable staff will be happy to help.

Unlocking the Power of Composites™
>> for High-Rise Balconies & Terraces

Tel: 01255 443110 | www.duracomposites.com

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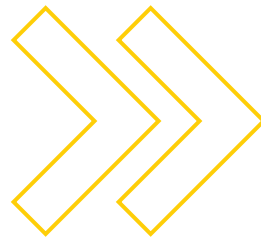
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Materials

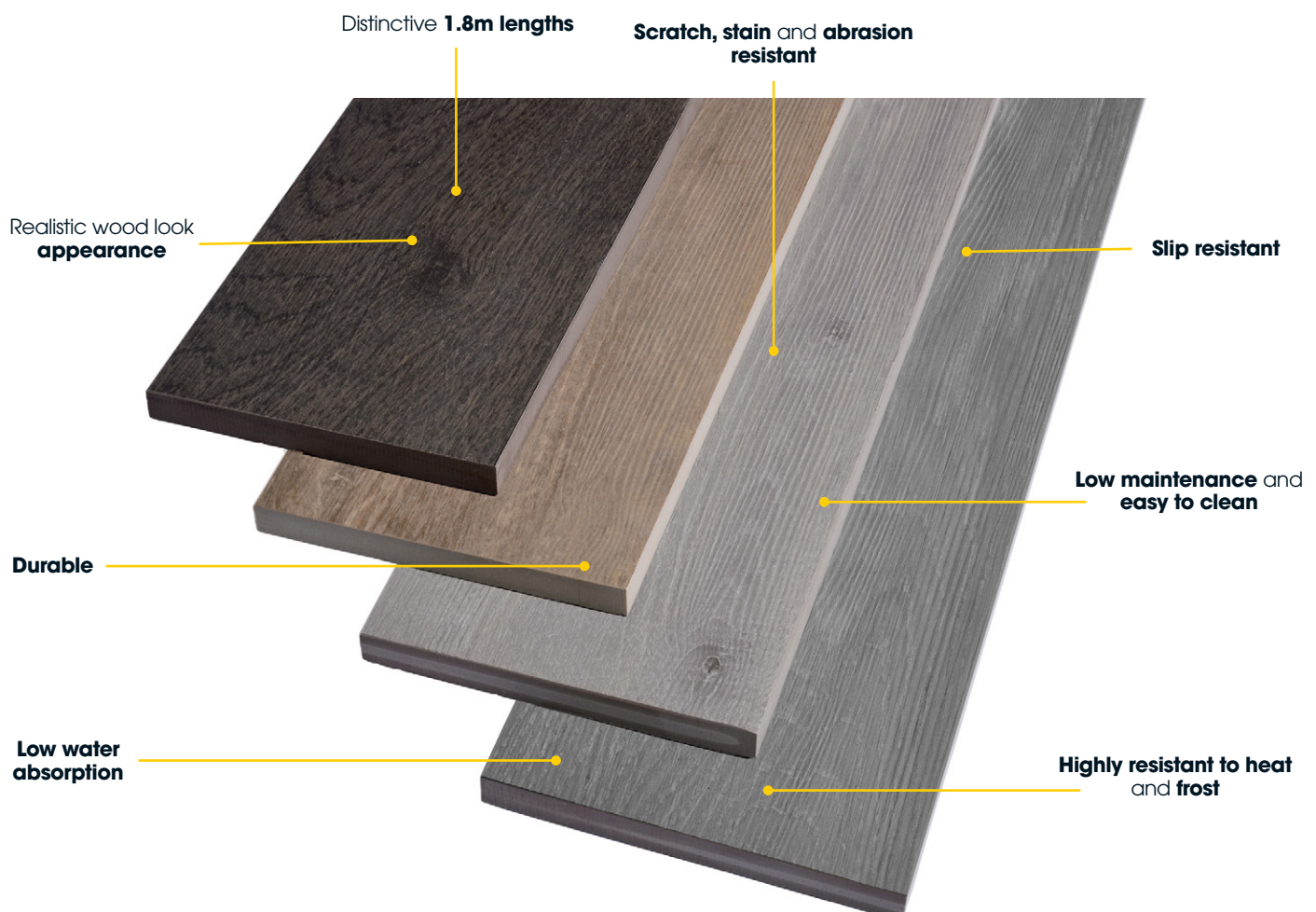


Before starting your Dura Deck® Inspire project:

As soon as your Dura Deck Inspire planks have been delivered to site, ensure you check them thoroughly. Due to the nature of the material, some minor imperfections are to be expected, but provided there is no structural damage to the plank itself, these planks can be put to one side to be used later for 'in fill' cuts.

Once you have inspected your planks, you should ideally place them in-situ as a "dry lay" to decide on individual plank or pattern placement and to establish that you have enough planks to complete your project.

Why choose Dura Deck Inspire?



Dura Deck® Inspire Accessories

Dura Deck® Inspire has a range of intelligently designed accessories so you can be sure of a simple and efficient way to start, install and finish your balcony decking or terrace design.

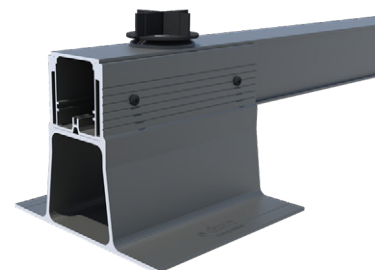
The images below show both the individual components you can choose from, as well as how they should be used within your project.



3mm Cross Spacer (4 Tabs)

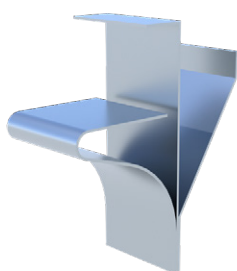


2 Tabs Removed

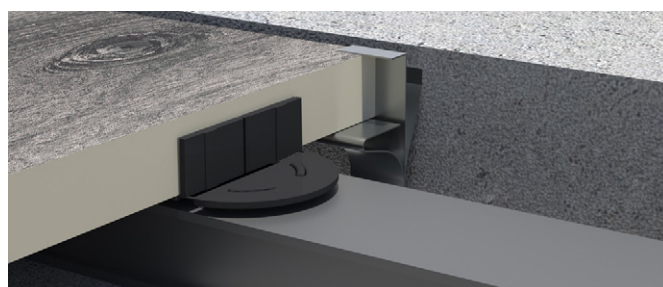


3mm Cross Spacer In-situ

The 3mm Cross Spacer ensures consistent even spacing between your Dura Deck Inspire planks. With all 4 tabs in place, the Cross Spacer is used at the junction between 4 tiles. With 2 tabs removed, the spacer is used where 2 planks meet.

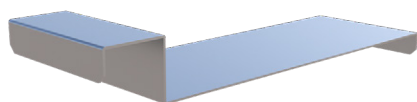


Wall Clip

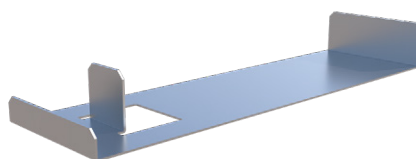


Wall Clip In-situ

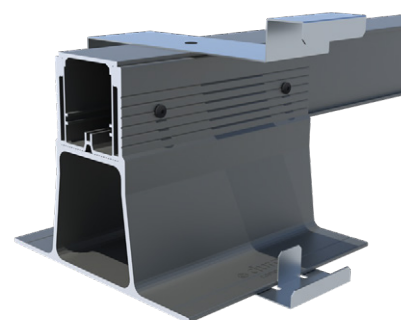
Our Dura Deck Inspire Wall Clips simply slot over the end of the planks to create a gap between the porcelain and the wall. With a spring loaded movement, the clip provides a 5 to 15mm range.



Fascia Top Clip

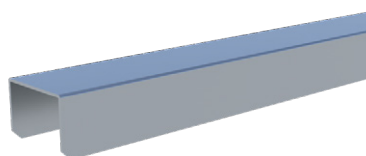


Fascia Bottom Clip

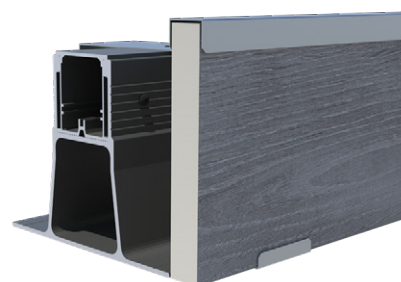


Top & Bottom Clip In-situ

The Fascia Top and Bottom Clip and Cover Strips can be added to provide a neat finish to any exposed framework.



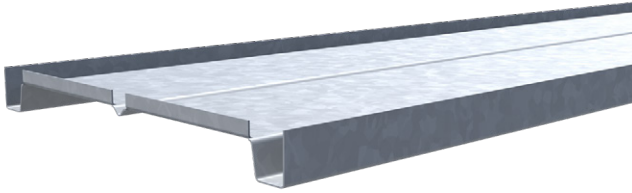
Optional: Fascia Cover



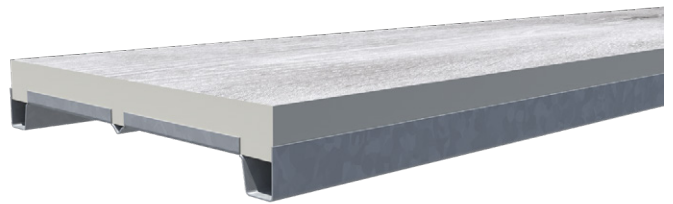
Dura Deck® Inspire Plank Retainer

The Dura Deck Inspire Plank Retainer (Patent Application Number GB 2218966.6) once mechanically fixed into place, enables a floating porcelain decking system to be installed under self-weight in scenarios such as open steel framed balconies, without the risk of planks falling. Providing pre-set gapping between the planks, the galvanised steel system also helps prevent wind uplift and allows for the quick removal of the decking for maintenance and inspection of the substructure.

Plank Retainer



Plank Retainer with Plank



Take a look at how the Dura Deck Inspire Plank Retainer system works in an installation example alongside our Dura Aluminium Substructure System below.

Plank Retainer Install Example:

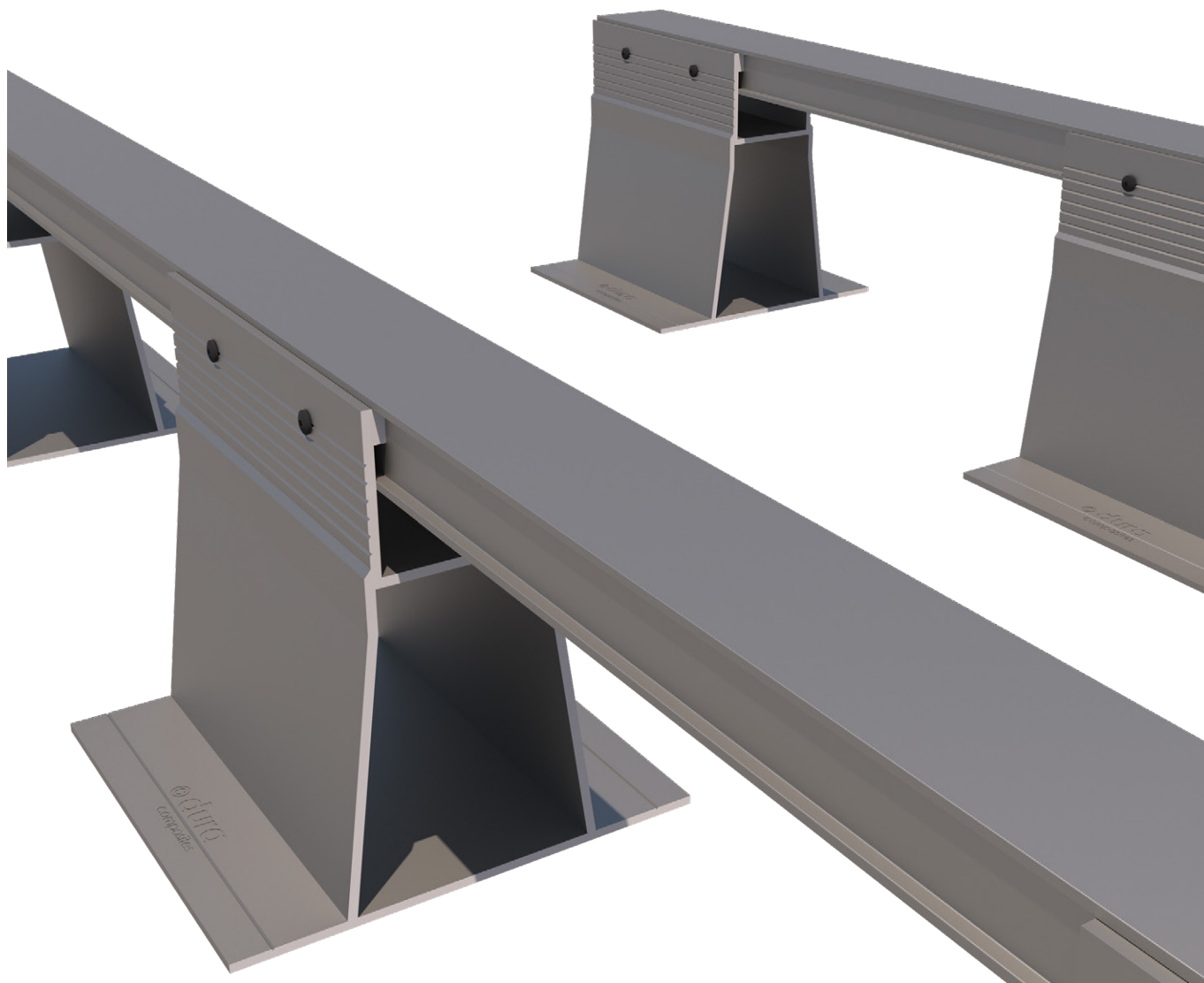


Sub-Frame Overview: Aluminium Support System

The Dura Pedestal and Bearer system has been developed to be fully compatible with the latest developments in fire safety legislation to help improve building safety. Both components achieve a Class A2 fire rating to EN13501-1 flooring standards with their anthracite powder coated finish and an A1 rated mill finish is also available by special order.

Aluminium Bearers are the simplest and most durable sub-frame option. They have a long life expectancy and are uniform, making installation relatively simple. When Dura Bearers and Dura Pedestals are combined, they are able to overcome a huge slope range and can be used in areas with gradients of up to 10° Degrees – which is equivalent to a 1:6 fall!

Each pedestal can be slid onto the bearer in a matter of seconds. When the bearer is fixed into the first and last pedestal of the run at the right height, it creates the required fall at a pre-set angle, so there's no need to adjust each individual pedestal.



For all sub-frames, please note the following:

- A sub-frame allowing a minimum of 25mm air space between the Dura Deck boards and the ground or substrate is essential to allow sufficient air flow to prevent the build-up of moisture.
- The finished deck must have a gradient of 1 in 100 (1%) which is equivalent to 10mm of fall for every 1m of deck to encourage water to run off, avoiding slip related injuries and eradicating issues with standing water.
- The maximum span beneath supporting bearers depends on the bearer material choice and specification. Please refer to material supplier.
- If possible, try to make the width of the deck divisible by the width of the chosen board to avoid the need to trim and finish a board along its length.

Dura Bearers

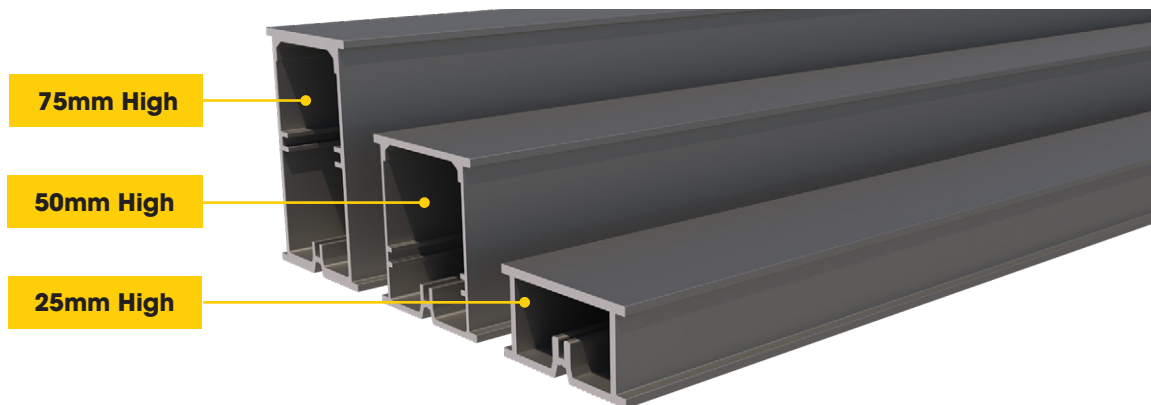
Aluminium Dura Bearers offer a simple and long-life decking substructure solution for gardens, balconies and large commercial projects. Unlike timber subframes, which can twist, rot or warp over time, Dura Bearers are made from 6063 grade aluminium (T6) and have a greater strength-to-size ratio than traditional materials.

Available in three sizes (25mm, 50mm and 75mm), Dura Bearers can be installed directly onto hard surfaces, such as concrete or paving, as well as onto soft surfaces such as soil, sand or grass, (provided the area has been compacted and bricks, pavers or concrete slabs are placed beneath the bearers at suitable intervals).

When combined with our Dura Pedestal range as a complete A2 fire rated system, they can be used on sloping or uneven ground with gradients of up to 10° Degrees - which is equivalent to an amazing 1:6 fall!

For more information on the Dura Composites system, please visit www.duracomposites.com/decking/decking-sub-structure.

Bearer Options	Height (mm)	Width (mm)	Length (mm)	Weight per Length (mm)	Max Centres between Pedestals (mm)
25mm Aluminium Bearer	25	48	3660	3.4	400
50mm Aluminium Bearer	50			3.5	600
75mm Aluminium Bearer	75			6.1	1300



Dura Pedestals

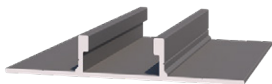
Aluminium Dura Pedestals have an A2 fire-rating and a unique patented design which helps overcome even the most complex of installation challenges. Available in 8 different variants, the anthracite coloured pedestals are designed to work seamlessly with our aluminium Dura Bearers to provide the most economical A2 rated support system on the market.

Unlike plastic pedestals, the Dura Pedestals have a single unit construction, with no fiddly separate components (such as bearer holders, slope correctors or spacers) to unpack and assemble. The tripod design features enhanced stability to mitigate the risk of rolling and can be butted right up to the wall or edge without the need for cuts. If your project requires a fall, or if your substructure is not level, each pedestal includes handy visual notches at 5mm intervals so you can easily secure your bearers at your desired height.

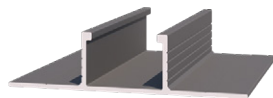
Registered Design No. EU 007 827 746

Patent No. GB 2 589 392

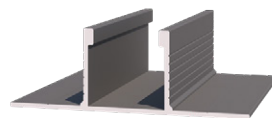
Product Name	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
25.5mm	150	150	25.5	0.27
36.5mm			36.5	0.28
50.5mm			50.5	0.33
85.5mm			85.5	0.5
117.5mm			117.5	0.58
152.5mm			152.5	0.66
187.5mm			187.5	0.75
222.5mm			222.5	0.83



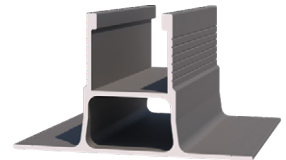
25.5mm High



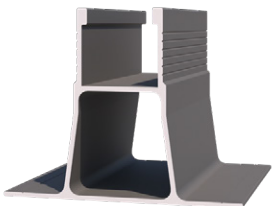
36.5mm High



50.5mm High



85.5mm High



117.5mm High



152.5mm High



187.5mm High



222.5mm High

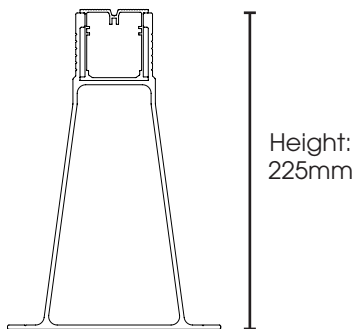
Dura Bearer & Pedestal Selection

Use any Dura Bearer with any Dura Pedestal to create 48 different combinations. Installation is faster, easier and more stable than with fiddly plastic pedestals. A precise height can be created (which can be as small as a 10mm adjustment when installing any bearer option in combination with the 25.5mm pedestal).

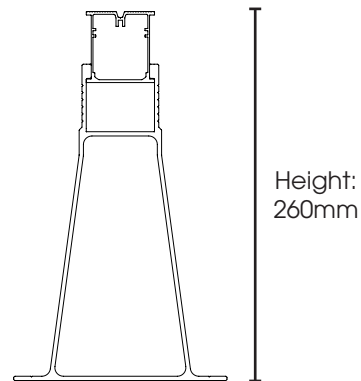
Product	Height (mm)	Heights Achieved with 25mm Bearer		Heights Achieved with 50mm Bearer		Heights Achieved with 75mm Bearer	
		Min Height (mm)	Max Height (mm)	Min Height (mm)	Max Height (mm)	Min Height (mm)	Max Height (mm)
Dura Pedestals	25.5	28	38	53	63	78	88
	36.5	38	53.5	53	83.5	78	103.5
	50.5	53	65.5	53	88	78	113
	85.5	88	100.5	88	123	113	148
	117.5	120	132.5	120	155	145	180
	152.5	155	167.5	155	190	180	215
	187.5	190	202.5	190	225	215	250
	222.5	225	237.5	225	260	250	285

The below drawings show the minimum and maximum heights that the combination of a 50mm Dura Bearer and a 222.5mm Dura Pedestal can create.

Minimum Height Achieved By Combining:
50mm Dura Bearer & 222.5mm Dura Pedestal

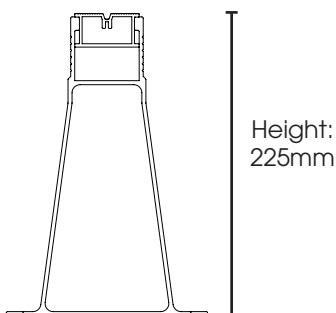


Maximum Height Achieved By Combining:
50mm Dura Bearer & 222.5mm Dura Pedestal

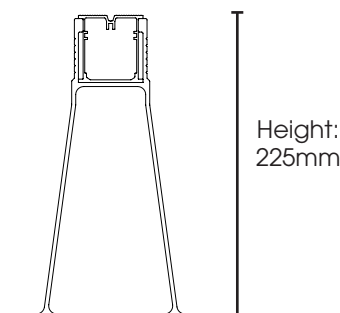


The below examples show how different combinations of bearers and pedestals form decking heights. Being able to create similar heights with different combinations helps create slope gradients in the project decking.

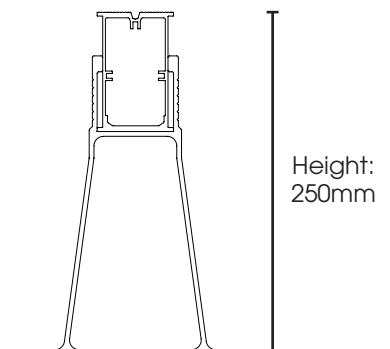
Minimum Height Achieved By Combining:
25mm Dura Bearer & 222.5mm Dura Pedestal



Minimum Height Achieved By Combining:
50mm Dura Bearer & 222.5mm Dura Pedestal



Minimum Height Achieved By Combining:
75mm Dura Bearer & 222.5mm Dura Pedestal



Bearer Quantity Calculation

To determine how many bearers (aluminium or timber) you will require, you can follow the method below.

Begin by measuring the proposed deck area(s) - width length and height (from the ground). Based on the square meterage of the area(s) multiply this by 2 and add 10% for wastage, to determine the total linear meters of the deck bearers required. Divide the total linear meters of the bearers by the individual length of the bearer (3600mm for Dura Deck Bearers) which will give you the total quantity of bearers required; you should always round the number up to ensure you have an adequate number of bearers.

Dura Deck Inspire requires your bearers to be laid out with 600mm centre to centre spans.

Example 30m² deck area:

$30\text{m}^2 \times 2$ (2 Bearers required per Linear Metre) = 60 Linear Metres (Lm)

$60\text{Lm} \div 3.66$ (length of Bearer) = 17 Bearers required (rounded up)

Pedestal Quantity Calculation

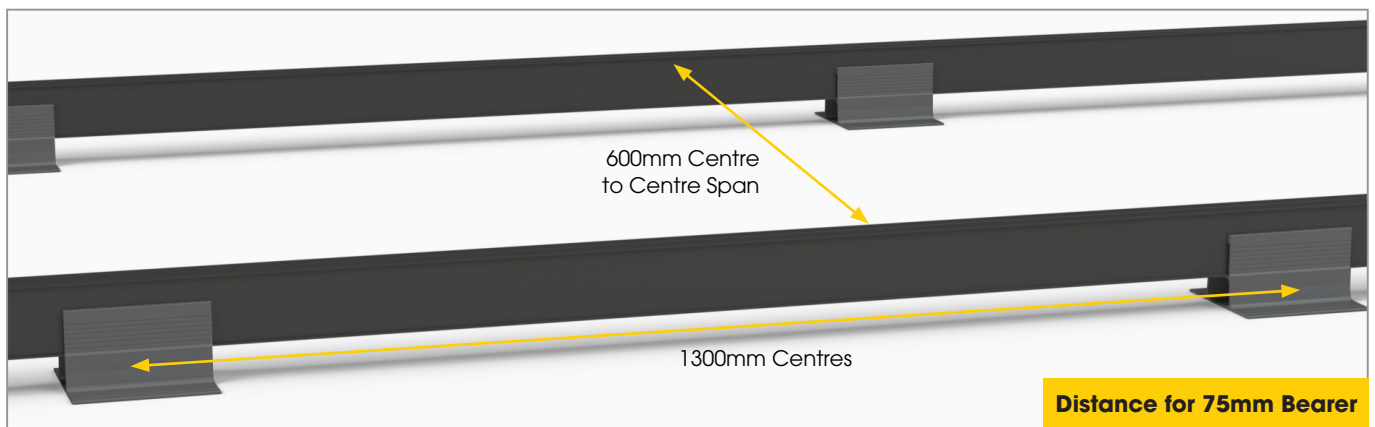
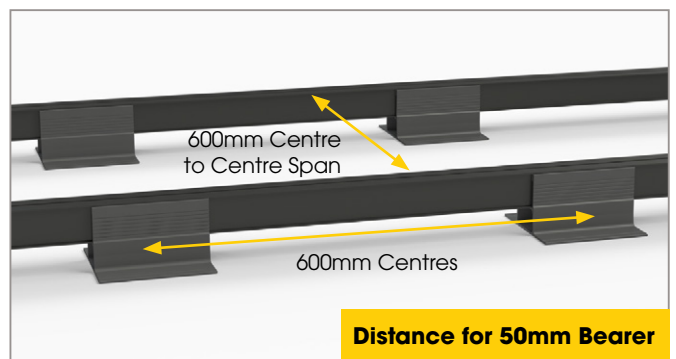
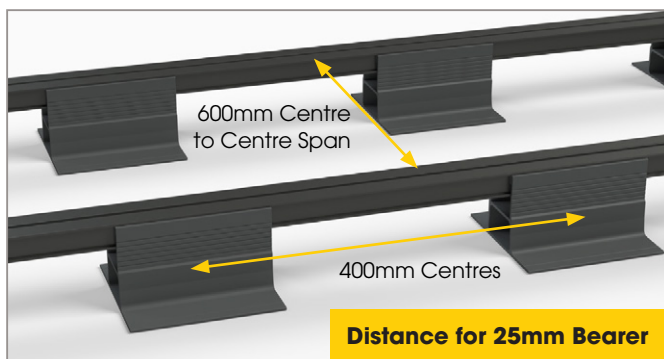
Once determining how many bearers you require, you can follow the below method to work out how many pedestals you require to support your substructure.

Start by taking the number of bearers that were worked out for your project above. Multiply that by the length of your bearers. Then divide that by the span required for the chosen bearers. This will give you the quantity of pedestals that you require for your project.

Example 30m² deck area:

17 Bearers x 3.66 (length of bearer) = 62.222Lm

$62.222\text{Lm} \div 0.6$ (600mm centre to centre span) = 104 pedestals (rounded up)



Need some extra help?

Get in contact with your Dura Composites representative if you require any additional support in working out the quantity of bearers and pedestals that you require for your project.

Working With Composites



Before You Begin

These guidelines are provided to help prevent installation problems caused by common errors when working with Dura Deck Inspire.

There are many bespoke aspects of installation that are assumed to be general construction knowledge to an experienced installer; and as such are not included in this document. The guidance below and the installation elements of this document are strictly recommendations and are not intended to serve as a step-by-step, fool proof installation checklist.

If you have any additional install questions, please contact your Dura Composites Representative.

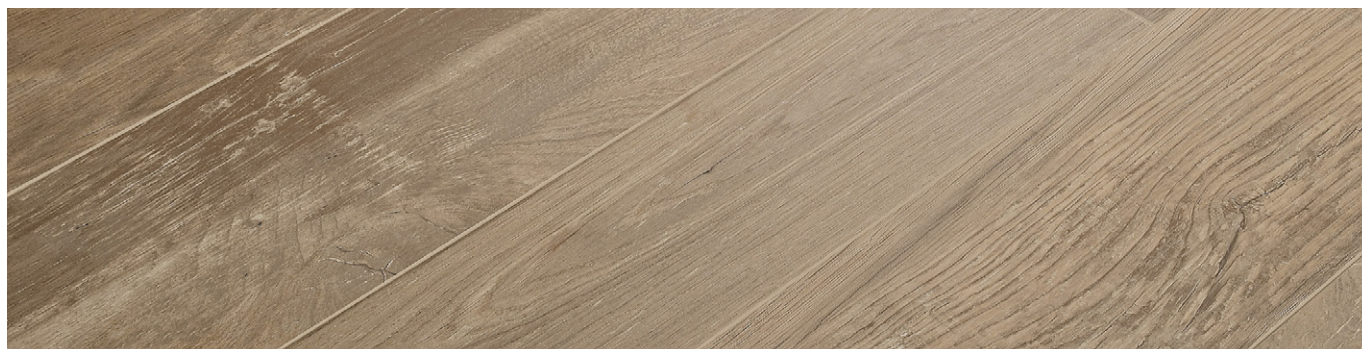
Safety

Our decking solutions have been designed for simplicity and ease of installation. However, to ensure long-term performance, any installation **MUST** be carried out in accordance with these instructions by a qualified professional with previous experience of working in landscaping and building environments. All installations must include the use of approved Dura Composites fixings or accessories, to ensure your warranty is valid.

To ensure safety during installation please:

- Keep members of the public away from the work area until the job has been completed and tools have been stored safely.
- Refer to the operator's manuals for safety guides for all power tools being used.
- When handling Dura Inspire, always wear gloves with additional eye protection and work in a well-ventilated area with respiratory masks.
- Dispose of excess material safely as refuse or recycle in line with local legislation.
- Wear eye protection when pressure washing or scrubbing.
- Dura Inspire is NOT intended for use as columns, support posts, beams, joist stringers or other primary load bearing members unless approved by Dura Composites before any installation takes place in case of safety issues.

Please be sure that your proposed design meets any relevant local building codes and regulations before you begin the installation.



Required Tools

Dura Deck® Inspire can be installed in environments using a number of standard tools. The list of tools and supplies you may need includes the following:



Measuring Tape



Chalk Line or String Line



Spirit Level



Rubber Mallet



Drive Power Drill



Double Pad Suction Cup for Tiles with both Smooth and Textured Surfaces



Bridge Wet Saw



Diamond Grinding and Cutting Discs

IMPORTANT: When fixing the plank retainer to the steel frame or the pedestals to the bearers, only use a drill or drill driver on a low setting. Hammer settings or impact drivers are not compatible with the screw types used for Dura Deck installations and must not be used.

Storage and Handling

To ensure the best performance of our products, it is vital that proper care and attention is given to storage and handling of materials.

Dura Deck Inspire planks should be stored on a flat and level surface in their original packaging and shrouded to protect from water ingress until you are ready to install them. Pallets must be carefully stacked, no more than 4 high.



Install Steps

2

In this section, you will find installation information for the below scenarios. If you have any additional install questions, please contact your Dura Composites Representative.

- Installing on Dura Bearer & Pedestals (page 13)
- Installing on Dura Bearer & Pedestals with Fascia (page 14)
- Installing on Steel Balconies using Dura Deck Inspire Plank Retainer (page 16)
- Installing on Concrete/Parapet Balconies using Dura Bearer & Pedestals (page 18)
- Installing on Traditional Substrates: Concrete (page 20), Sand or Gravel (page 21)



Installing with Dura Bearer & Pedestals

When installing Dura Deck Inspire planks in a commercial or ground level terrace setting using our aluminium bearer and pedestal products enables a floating porcelain decking system to be installed under self-weight. Follow the steps below.

Step 1:

Place bearers and pedestals in correct format according to your deck design, ensuring that the correct Centre to Centre Span and pedestal distancing has been followed. Ensure bearers are inverted so that the flat surface will adhere to the Rubber Base Plate of your Cross Spacer. Mechanically fix bearers into pedestals according to required gradient (fall) to ensure water runoff.

Step 2:

Once all pedestals and bearers are in position, begin adding wall clips to the edges of the planks that will be adjacent to any wall. Remove spacer tabs that are not required and position Cross Spacers centrally on the bearers. Add the first plank.

Step 2a:

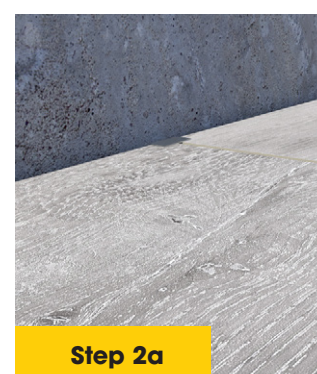
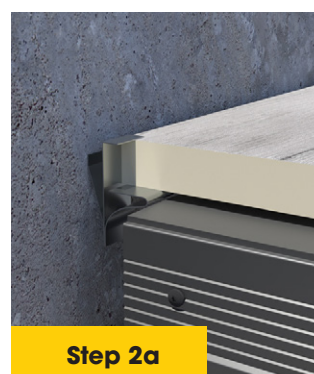
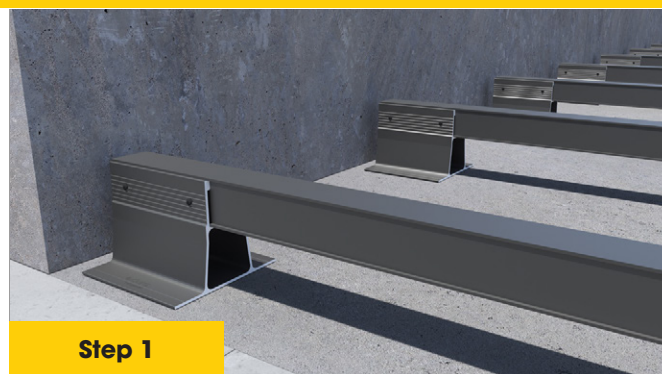
The Wall Clip bridges two planks once laid.

Step 2b:

Where plank is being added to a leading edge, only 2 tabs will be required as shown.

Step 2c:

Where four planks meet on a bearer, ensure all 4 tabs are present and correctly aligned.



Step 3:

Continue to add planks and repeat Step 2 as needed to complete your Dura Deck Inspire installation.

Step 4:

If your deck design does not finish on a full width plank, rip down the last plank to suit. Once all planks have been added, simply brush away any debris from the installation and wash down your deck with clean water ready for use.





Step 4

If your project requires the inclusion of Fascia, please follow the below process:

Step 1:

Place bearers and pedestals in correct format according to your deck design, ensuring that the correct Centre to Centre Span and pedestal distancing has been followed.

Ensure bearers are inverted so that the flat surface will adhere to the Rubber Base Plate of your Cross Spacer. Mechanically fix bearers into pedestals according to required gradient (fall) to ensure the appropriate water runoff.

Insert a Bottom Clip underneath each pedestal along the side where the Fascia boards will meet. Place the Top Clip on top of the Bearer, in line with the Bottom Clip.

Step 2:

Before fixing the Top Clip ensure the Fascia board is inserted between the Top and Bottom clip. If the plank doesn't fit, cut it to size.

Step 3:

Once all pedestals and bearers are in position, begin adding wall clips to the edges of the planks that will be adjacent to any wall. Remove spacer tabs that are not required and position Cross Spacers centrally on the bearers. Add the first plank.

Where 4 planks meet on a bearer, ensure all 4 tabs are present and correctly aligned. Where plank is being added to a leading edge, only 2 tabs will be required as shown.



Step 1



Step 2



Step 3

Step 4:

Continue to add planks and repeat Step 3 as needed.

When you reach the end of the Fascia plank, ensure that the Top and Bottom Clip joins two planks. If your plank does not finish in the centre of a Top/Bottom Clip, then cut the Fascia plank to fit.

Step 5:

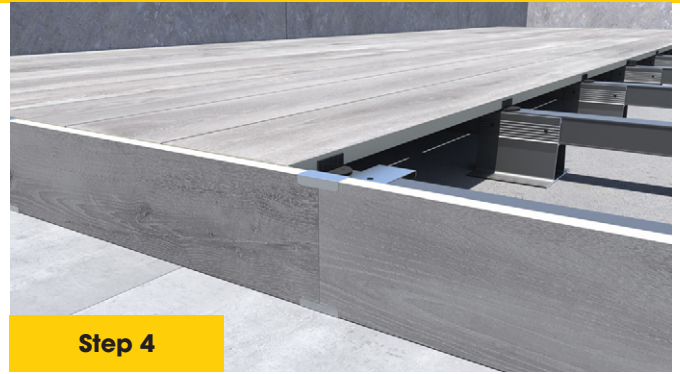
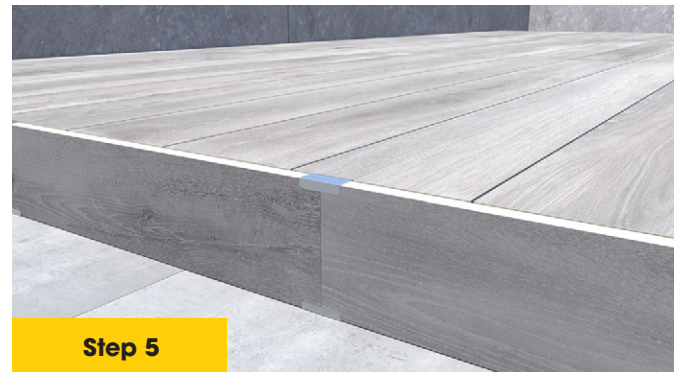
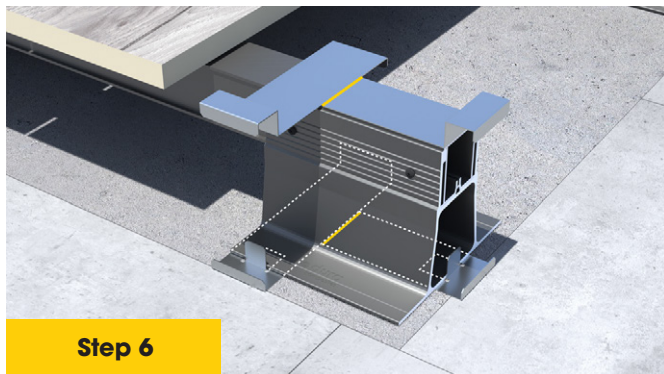
Continue to add planks and repeat Step 3 as needed to complete your Dura Deck Inspire installation.

Step 6:

For a corner where the Fascia planks meet, cut one pair of Top/Bottom Clips where the yellow lines are shown in Step 6 to allow them to sit flush and fit on one pedestal.

Optional: Mitre two Fascia planks for the corner at a 45 degree angle to fit flush together as shown in Step 6a.

Once Fascia plank is inserted into the Top/Bottom Clips, fix the Clips into position.

**Step 4****Step 5****Step 6****Step 6a****Step 7:**

Insert your final plank. If your deck design does not finish on a full width, rip down the last plank to suit.

Once all planks have been added, simply brush away any debris from the installation and wash down your deck with clean water ready for use.

Optional Step 8:

Place the Fascia Cover Strip over the top of the Fascia planks and Top Clips. If required, cut the Cover Strip lengths to suit the project.

Mitre the edge of two Cover Strips at a 45 degree angle to fit flush together.

**Step 7****Step 8**

Installing on Steel Balconies Using Dura Plank Retainers

The Dura Deck Inspire Plank Retainer (Patent Application Number GB 2218966.6) once mechanically fixed into place, enables a floating porcelain decking system to be installed under self-weight in scenarios such as open steel framed balconies, without the risk of planks falling.

Providing pre-set gapping between the planks, the galvanised steel system also helps prevent wind uplift and allows for the quick removal of the decking for maintenance and inspection of the substructure.

Step 1:

Complete the installation of the steel frame balcony in accordance with local building regulations. Ensure that any construction debris is removed and that safe access to the balcony area is available.

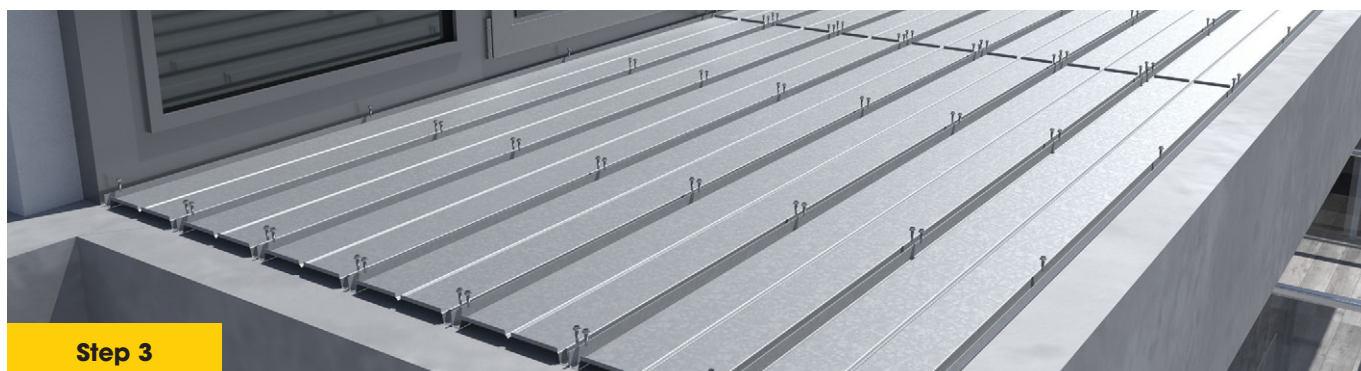
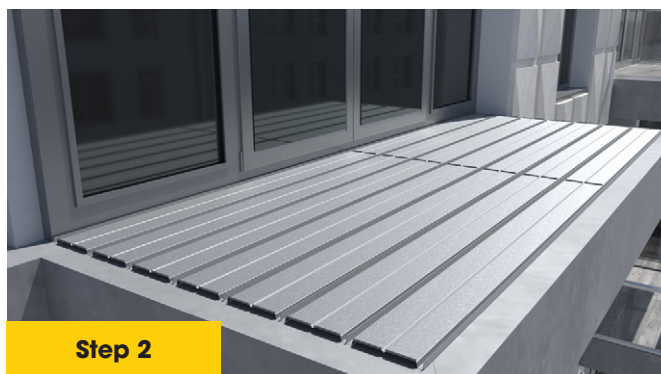
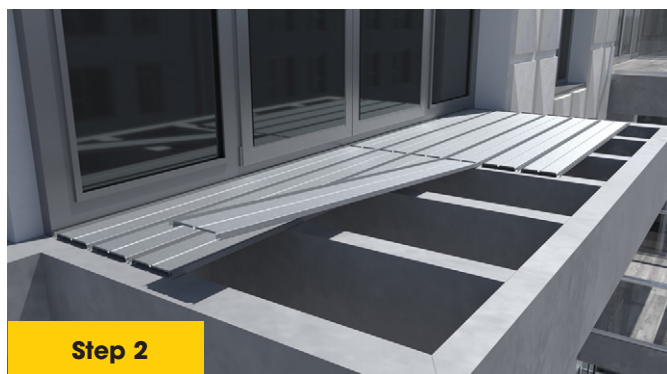
Step 2:

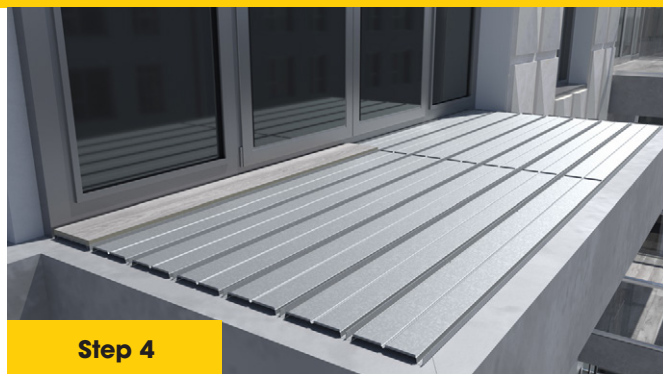
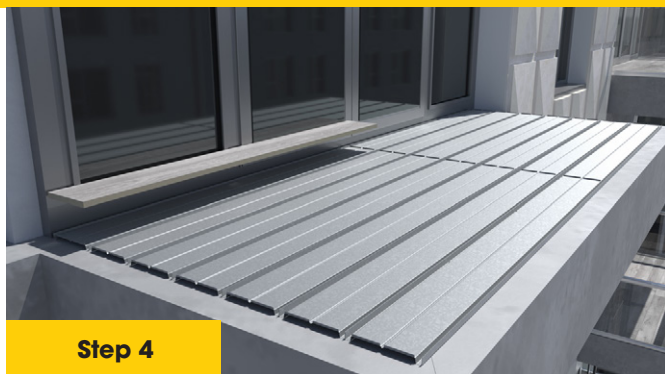
Add your Dura Deck Inspire Plank Retainers perpendicular to the steel supports.

IMPORTANT: Do not walk on any retainer until mechanically fixed into place.

Step 3:

Use the pre-drilled fixing holes spaced at 600mm intervals to mechanically fix the retainer to the steel frame.



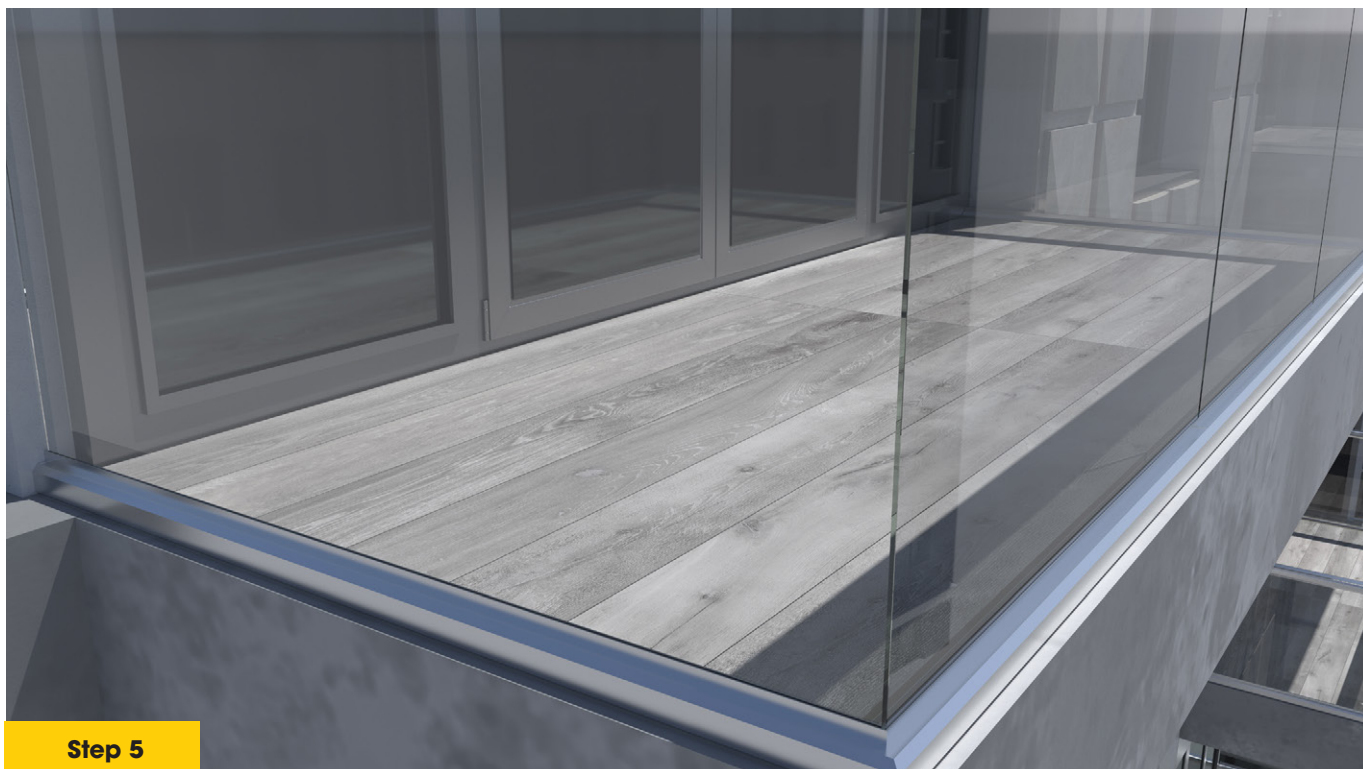


Step 4:

Once all retainers are in place and have been mechanically fixed, begin adding your Dura Deck Inspire planks (1 per retainer).

Step 5:

Once all planks have been added, simply brush away any debris from the installation and wash down your deck with clean water ready for use.



Installing on Concrete/ Parapet Balconies with Dura Bearer + Pedestals

When installing on a concrete/parapet balcony using our aluminium bearer and pedestal products as the substructure, enables a floating porcelain decking system to be installed under self-weight. Follow the steps below.

Step 1:

Complete the installation of the concrete/parapet frame balcony in accordance with local building regulations. Ensure that any construction debris is removed and that safe access to the balcony area is available.

Step 2:

Place bearers and pedestals in correct format according to your deck design, ensuring that the correct Centre to Centre Span and pedestal distancing has been followed. Ensure bearers are inverted so that the flat surface will adhere to the suction cup of your Cross Spacer. Mechanically fix bearers into pedestals according to required gradient (fall) to ensure appropriate water runoff.

Step 3:

Remove any spacer tabs that are not required and position Cross Spacers in the centre of your bearers.

Step 3a:

The image here shows the Cross Spacer with 2 tabs removed and the Wall Clip in place.

Step 3b:

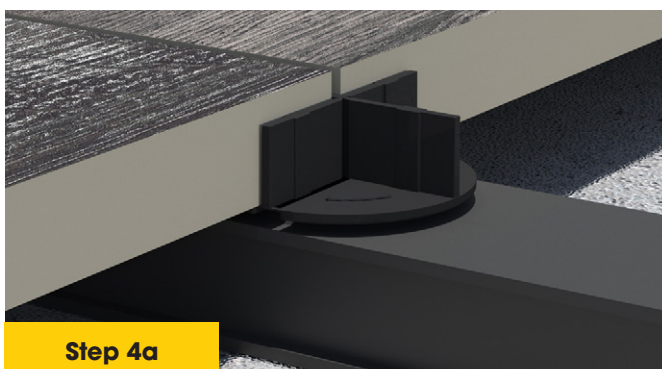
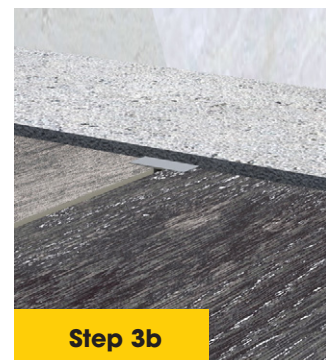
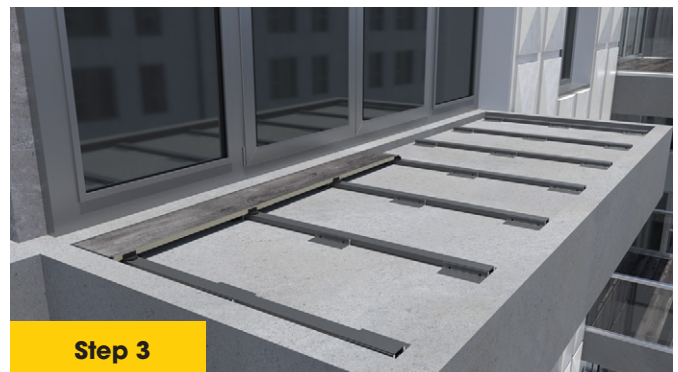
This image shows the Wall Clip bridging two planks once they have been laid.

Step 4a:

Where 4 planks meet on a bearer, ensure all 4 tabs are present and correctly aligned.

Step 4b:

Where plank is being added to a leading edge, only 2 tabs will be required as shown.





Step 5 + 5a:

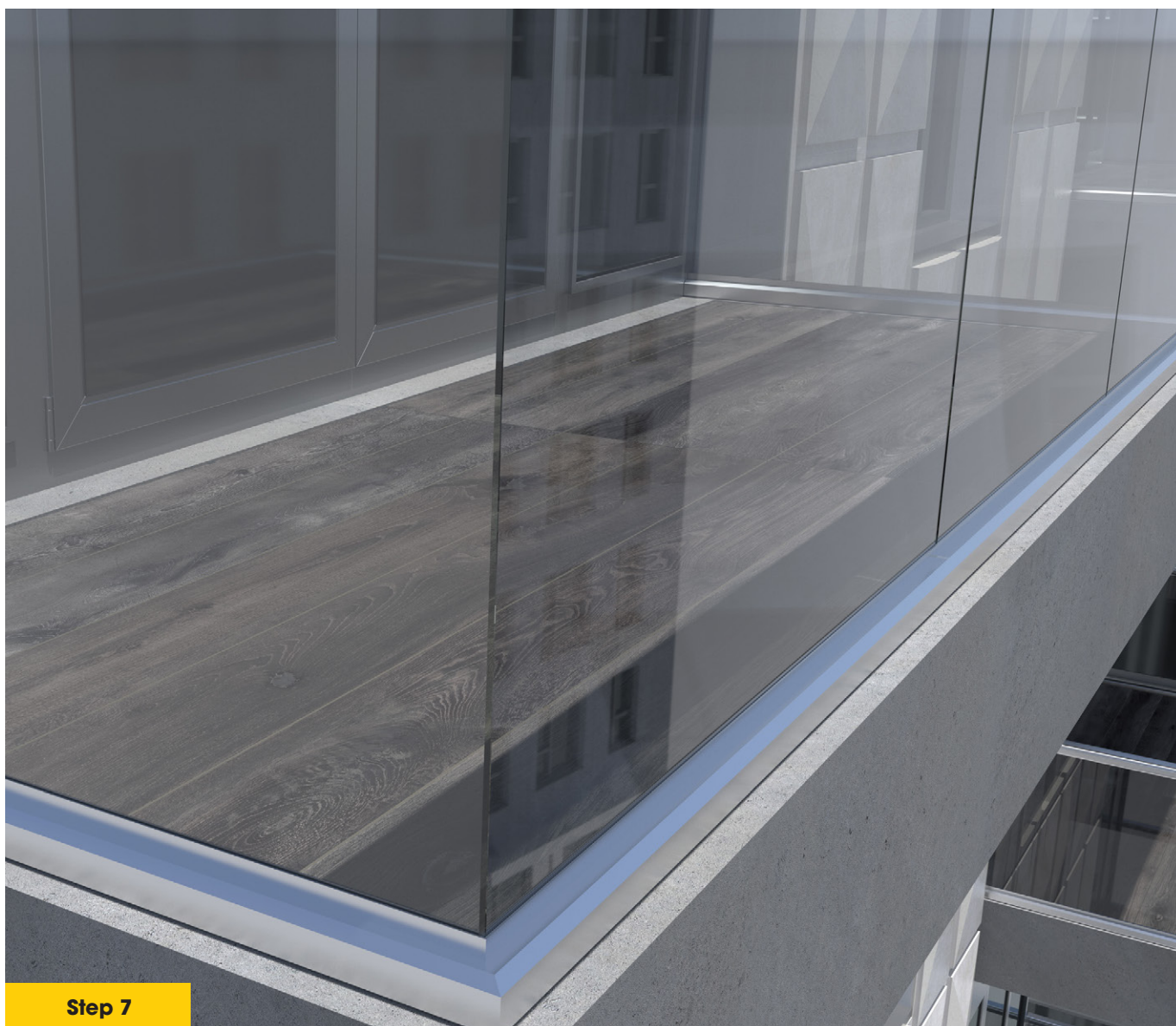
Continue to add planks and repeat Step 3b as needed to complete your Dura Deck Inspire installation.

Step 6:

If your deck design does not finish on a full width plank, rip down the last plank to suit.

Step 7:

Once all planks have been added, simply brush away any debris from the installation and wash down your deck with clean water ready for use.



Installing on Traditional Substrates: Concrete

When installing Dura Deck Inspire planks onto concrete scenarios, the following steps should be followed.



Step 1:

Give your concrete a good clean and remove any debris so that your planks will adhere well to the surface. Use a thin set mortar designed for this application and spread it over the concrete evenly using a notched trowel.

The reinforced concrete base must always be installed in accordance with relevant codes and standards with expansion joints provided as required. If the concrete slab is not sufficiently large to require expansion joints, a minimum 3mm grout joint between planks is acceptable, but for larger concrete slabs that require expansion joints, the grout joint should be 10mm. You should not install across expansion joints.

Step 2:

Make sure that your existing concrete surface is in good condition, has the required reinforcements and has a fall which is pitched away from any buildings present on your planned installation site.

Step 3:

Lay the planks on the thin-set with minimum 3mm joint spacing where the area is not large enough to require expansion joints. All expansion joints must be located along the joint line of the installed planks to avoid cracking.

Step 4:

After the thin-set has dried, grout the planks with an approved exterior grade grout.

Step 5:

Wash the planks carefully after grouting to remove excess grout.

Step 6:

A final buffered acid wash will also be required to remove any invisible grout residue. If a polymeric sand is preferred over grout, use Tile Sand which is specifically made for porcelain paving products.

Installing on Traditional Substrates: Sand or Gravel

For landscape, large patios, courtyards, walkways, and terraces subject to moderate levels of foot traffic, dry laying on a sand and gravel bed is typically the preferred installation method for porcelain planks.



Step 1:

First ensure there is a min. 50mm slope for drainage which must be directed away from any building.

Step 2:

Mark out your perimeter area using a string line and ground markers. Note that the excavated area should be extended on all sides by approx. 150-200mm to ensure stability at the outer edges of the paved area.

Step 3:

Remove the soil inside the marked area using a shovel or excavator. How deep you will need to excavate will depend on the planned loading and usage of your finished porcelain decked area, the quality and condition of your soil and how much drainage it currently permits.

Step 4:

Using a rake or shovel, level the excavated area and ensure there is at least 2% slope for good drainage. Compact the soil with a compactor plate.

Step 5:

If your existing edge is not sufficiently rigid, you'll need to add a retaining perimeter wall before you lay your gravel or sand bed. This retaining wall should be mechanically fixed, or formed from poured concrete.

Step 6:

Place a sheet of geotextile fabric on top of the compacted soil to prevent the soil from mixing with the gravel. Fill the excavated area with 20mm stone screenings to a thickness of 200-300mm, depending on the planned loading.

Step 7:

Add a further layer of 10mm gravel to a thickness between 100-200mm. Compact the two layers and then level ensuring there is a slope of approx. 2%.

Step 8 (If adding Sand):

Place a sheet of geotextile fabric on top of the compacted gravel to prevent the gravel from mixing with the sand. Fill the area with sand to a thickness of between 20mm and 50mm and compact with a compactor plate.

Step 9:

Level the surface by sliding a wood or steel board placed on two parallel runners across the entire area, again ensuring there is a slope of approx. 2%.

Step 10:

Taking care not to disturb the gravel/sand bed, lay the Dura Deck Inspire using 3mm min. spacers. Preferably use spacers.

Step 11:

Carefully tap the Decking Planks with a rubber mallet to ensure they are not rocking on the sand bed and that they are level with each other.



Additional Info



Cleaning and Maintenance

Dura Deck® Inspire doesn't stain, fade or rot, so will only require minimal cleaning throughout its life cycle. For the best methods of cleaning, please ensure you read the below guidance.

How do I clean my Dura Deck Inspire install?

For a general clean, warm soapy water and a soft bristle brush should remove any dirt or mud that may accumulate.

Can I pressure wash porcelain decking?

Absolutely you can use a pressure washer to keep your porcelain decking looking clean and tidy. Make sure you avoid concentrating the spray nozzle for too long in any one area to avoid surface abrasion, and keep the nozzle an even distance from the decking for best results.

How should I maintain porcelain decking?

Porcelain decking is extremely resistant to staining and usually just needs a quick wash and brush down or a pressure wash using a mild alkaline detergent to keep it looking at its best, making sure to rinse well with fresh water after cleaning. For those occasional stubborn stains such as rust from your outdoor furniture, we recommend the use of a cleaning product called Deterdek from Fila Solutions, which contains high concentrations of surfactants.

Marks for Cutting

Always use a non-permanent marker such as baby powder/dust-off marking chalk to plumb line wherever possible.

Disposal

Dura Deck Inspire is a great choice if you're looking for sustainable solutions. 100% of the finished product can be recycled through ceramic recycling channels. If unsure, always contact your local governing body for more information.

Frequently Asked Questions (FAQs)

Still got questions about Dura Deck Inspire? Take a read of the below FAQs. If you have any additional questions about your project or our product, our specialist team are always happy to help.

Is porcelain decking a composite product?

Composite products are clever innovations which make life easier in some way for the user. In essence, they consist of two or more materials with different properties which are combined to produce something with improved characteristics (i.e. something that's lighter or more durable than its original counterparts). Porcelain is a type of composite ceramic material that is made from clay, feldspar, and kaolin. It's fired at a higher temperature than general ceramics, making it harder and more dense. It also absorbs less water, so it's perfect for outdoor areas and places with high moisture levels.

How are Dura Deck porcelain planks different from other porcelain decking on the market?

You only need to look at a Dura Deck Inspire plank to see how much it stands out versus the competition! With its stunning wood-look appearance and texture, and a realistic 1.8m length that's significantly longer than anything else on the market, it's the perfect timber replacement for high-rise and commercial landscaping environments. With a safe A1 fire rating, Dura Deck Inspire planks are resilient, stylish and anti-slip in wet and dry environments.

What is the warranty provided with Dura Deck Inspire?

Dura Deck Inspire porcelain planks have a durable finish which gives a long design life. We offer a 10 year structural warranty for your peace of mind.

What is the finish of porcelain decking?

Porcelain decking has an extremely hard wearing finish that's perfect for high traffic areas. The planks are resistant to everyday scratches and scuffs and are frost and corrosion resistant thanks to their low water absorption.

What is the fire rating of porcelain decking?

Dura Deck Inspire is A1 fire rated, making it completely resistant to open flames and extreme highs in temperature. This results in our porcelain decking being the ideal solution for applications where fire safety is of a high priority, such as high-rise buildings and rooftops. We offer solutions for both open steel frame balconies and concrete balconies.

What is the slip resistance of porcelain decking?

The extensively tested surface finish of Dura Deck Inspire provides great anti-slip performance, recording low slip potential results in both wet and dry conditions. As with any decking area, you must ensure that your finished deck has a gradient of at least 1:80 to encourage water to run off. Simply consult our technical manual for more information.

Is porcelain decking frost protected?

Dura Deck Inspire has little-to-no water absorption. The porcelain decking planks are resistant to frost and ice, and able to withstand extreme fluctuations in temperatures with no risk of deformation.



Data



5

Test Performance Overview

Test	Required Test Criteria	To Test	Test Result
Anti-Slip Rating		PTV Value in Wet & Dry Conditions	Average Dry PTV Value: 69 Average Wet PTV Value: 61
Water Absorption	<0.5%	Standard BS EN 14411:2016	<0.04%
Breaking Strength			>14.38Kn
Bending Strength	R > 35 N/mm ²		53 N/mm ²
Abrasion Strength	< 175 mm ³		<128 mm ³
Fire Resistance	A1		Class A1
Frost Resistance			Pass
Breaking Force (Mpa)			MPA 46.5
Chemical Resistance	UB Min		UA, ULA, UHA
Stain Resistance	Min. Class 3		Class 5
Surface Flatness	Standard: ISO 13006	Measurement within scope (+ / - 0.5%) in Length or Width	Pass <0.35%

Span & Loading Capabilities

Component	Span & Loading	Deflection
Dura Deck Inspire Plank	Up to 600mm Span based on 2Kn Point Load (5Kn/UDL)	L/200
Dura Deck Inspire Plank + Plank Retainer		L/2433

Anti-Slip Test Results

Sample	Direction	Condition	PTV
Dura Deck Inspire	Principal	Dry	67
	45 Degrees	Dry	68
	75 Degrees	Dry	70
	Average	Dry	68
	Principal	Wet	59
	45 Degrees	Wet	58
	75 Degrees	Wet	66
	Average	Wet	61

*(4S Rubber Slider) Pendulum Test Values (PTVs)

- Low Slip Potential (36+ PTV)
- Moderate Slip Potential (25-35 PTV)
- High Slip Potential (0-24 PTV)

Fire Performance

British Standards and European codes use different grading systems to class fire performance of materials, resulting in confusion for the industry. Dura Deck Inspire products are designed to cut through the noise.

Some competitors may reach Class A2 when tested specifically with certain fire rated barriers but fail when following the install guide (due to lack of airflow). Our test was conducted with a void to replicate a site install, rather than being fixed to a fire rated barrier. Engineered to resist the ignition of fire the Dura Deck Inspire range has been rigorously tested for consumer peace of mind. Dura Deck Inspire achieves A1 in accordance of BS EN 13501.

Customers can have confidence that Dura Deck Inspire has been certified and tested by a recognised UKAS accredited body, satisfying current fire legislation; with testing carried out in an environment to closely resemble that of an actual installation for the avoidance of doubt. For buildings above 18 metres including dwelling houses or domestic properties, a minimum fire rating specification is required by law. This applies to both protected areas such as stairwells or other refuge points, and unprotected areas such as property boundaries or the boundaries with adjacent buildings.

The standard to which External Flooring/Decking materials must comply is known as EN BS 13501 and is the latest iteration of fire standards and improves on previous tests such as BS476 which were limited in both scope and classification.

Current guidance regarding dwelling houses and other buildings above 18 metres require a minimum classification of Class A1. Dura Deck Inspire has successfully achieved the superior classification of A1 – in recognition of its lower smoke volume and the absence of droplet production in the event of a fire. These attributes, combined with its limited combustibility to flame spread mean that should the building be under attack from fire, firefighters' visibility would be less impeded, leaving them able to expediently deal with extinguishing the fire.

Composition

Atomised high quality clays, quartz, feldspars and metal oxides; pressed the obtained mixture at 400 kg/cm² pressure (2200 lbs/square inch); fired in industrial kilns at 1200 C to 1400 C (2192 F - 2552 F) to obtain a complete sinterization of the mixture.

Sustainability

Dura Deck Inspire planks are produced in Europe with 61% of pre-consumer recycled materials. All raw materials used in the production come from a radius of 500 miles of the manufacturing plant and the products' cardboard packaging materials are both made from recycled paper and are further recyclable.

Design Life & Warranty

Dura Deck Inspire is part of the Dura Deck range. It has a life expectancy of 60 years and comes with a 10-year structural warranty. As with all Dura Deck products, you must install the product according to our manufacturer recommendations to preserve your warranty. To activate your warranty, please register your product with us within 30 days of your invoice date at www.duracomposites.com/warranty.

Delivery

UK Mainland: delivery within 2-3 business days. Scottish Highlands & Islands, Isle of Wight and Northern Ireland: delivery within 4 business days. Please Note: Exports to Europe, Canada, Middle East and beyond can be arranged as required.

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June 2023