

Rail Station Platforms and Accessories

d²

Mountbridge™ Platform installed at Island Line, Isle of Wight

Discover the **d²** Dura Composites range of solutions for rail stations including platforms, footbridges, end of platform gates & fencing. The **d²** range deploys unique design and the latest composite technology to deliver the safest, most cost-effective and durable solutions on the market.

Unlocking the Power of Composites™
»» for the Rail Industry

dura™
composites

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About Us

Discover the **d²** product range from Dura Composites - the next generation of performance-improving composites. Available exclusively from Dura Composites, **d²** products feature unique designs, new material technology or manufacturing methods AND deliver class-leading performance.



We help companies of all sizes unlock the power of composites, and our client base includes businesses in the Rail, Industrial, Leisure, Marine, Construction, Transport and Landscaping sectors.

In 2017 and in 2020, Dura Composites was awarded the Queen's Award

for Enterprise in recognition of our achievements at the forefront of composite material technology. Dura Composites' products are also available through a well-established global distribution network. Your local distributor can be found on our website.

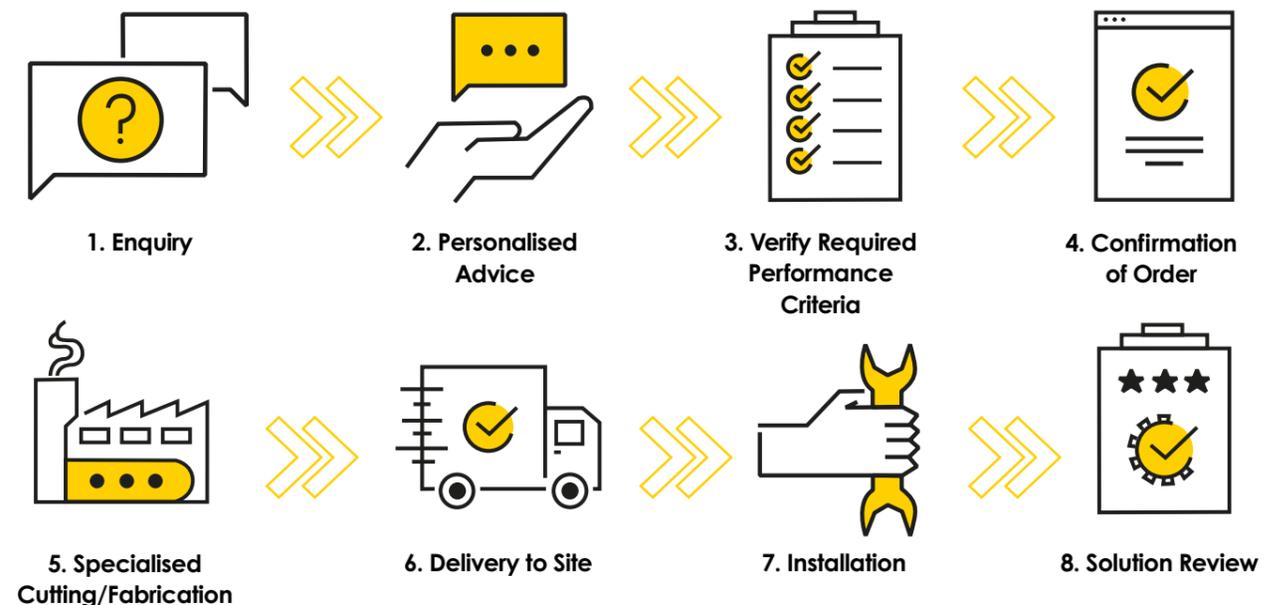
Let Dura Composites Unlock the Power of Composites for Your Next Project

Dura Composites is a designer, manufacturer and supplier of composite products for industry.

Here are a few great reasons to work with us:

- 1 Unique products backed up by demonstrably better specification**
 - We can help support your design services across all phases of the project lifecycle by providing detailed technical specifications for our award-winning product range.
 - Our live load testing data is available within our searchable Online Product Selector database to help you make decisions based on real data to ensure maximum safety for your project.
- 2 We only offer the right solution**
 - We believe that decisions on which products to use should be based on facts, not guesses or theories.
 - Whatever your scenario, you can be confident that we'll help ensure your project will meet the load performance and specification needed, otherwise we won't supply it!
- 3 25 Years of Multi-Industry Expertise**
 - We've had a reputation as leaders in innovation for almost a quarter of a century and take a collaborative approach to working with our Public and Private sector clients. We were awarded the prestigious Queen's Awards for Enterprise in 2017 and 2020 in recognition of our success in growing and championing the use of composite materials across the globe.
 - Our added value services include in-house CAD and Structural Engineering teams who can be utilised both for stand-alone design and as part of larger integrated design scheme.
 - Our specialist cutting and fabrication teams offer a full range of services to ensure you can install with confidence.

Your process with us at Dura:



Platforms

Station Platforms

Dura Platform 40 & 100

After over a century of heavy use, many of the UK's concrete train station platforms now require replacement as they reach the end of their service life. Traditionally concrete has been used, but works can require long possessions and are costly.

Dura Platform is a breakthrough composite product which solves all of these challenges and more in record time! Made from Glass Reinforced Plastic (GRP) which complies with Network Rail specifications, our composite station platform offers significant improvements over traditional alternatives such as concrete. It has been described as "game changing" by industry insiders and has won multiple awards.

Dura Platform is an excellent choice for both new build and refurbishment projects and is fast becoming a viable rival for traditional materials such as concrete, steel and tarmac.

Dura Platform can span up to an industry-leading 3.2m clear span and is capable of being man-handled, eliminating the need for costly RRVs or heavy lifting equipment. Its hidden fixing system minimises trip hazards, and the platform is also crankable to create an instant 1:40 fall to manage drainage.

Our latest innovation for Dura Platform includes the option of a solid surface on the 600mm plank which removes the need for longitudinal cover plates to cover the fixings and provides a uniform, aesthetically pleasing finish.

Key Benefits

Dura Platform can cut platform installation time by up to 65% - benefiting passengers who are able to re-access the station sooner and saving labour costs for rail contractors.



Save Time



Save Money



Improved Lifestyle



Low Maintenance

Main photo: Dura Platform 40 at Robroydon Station

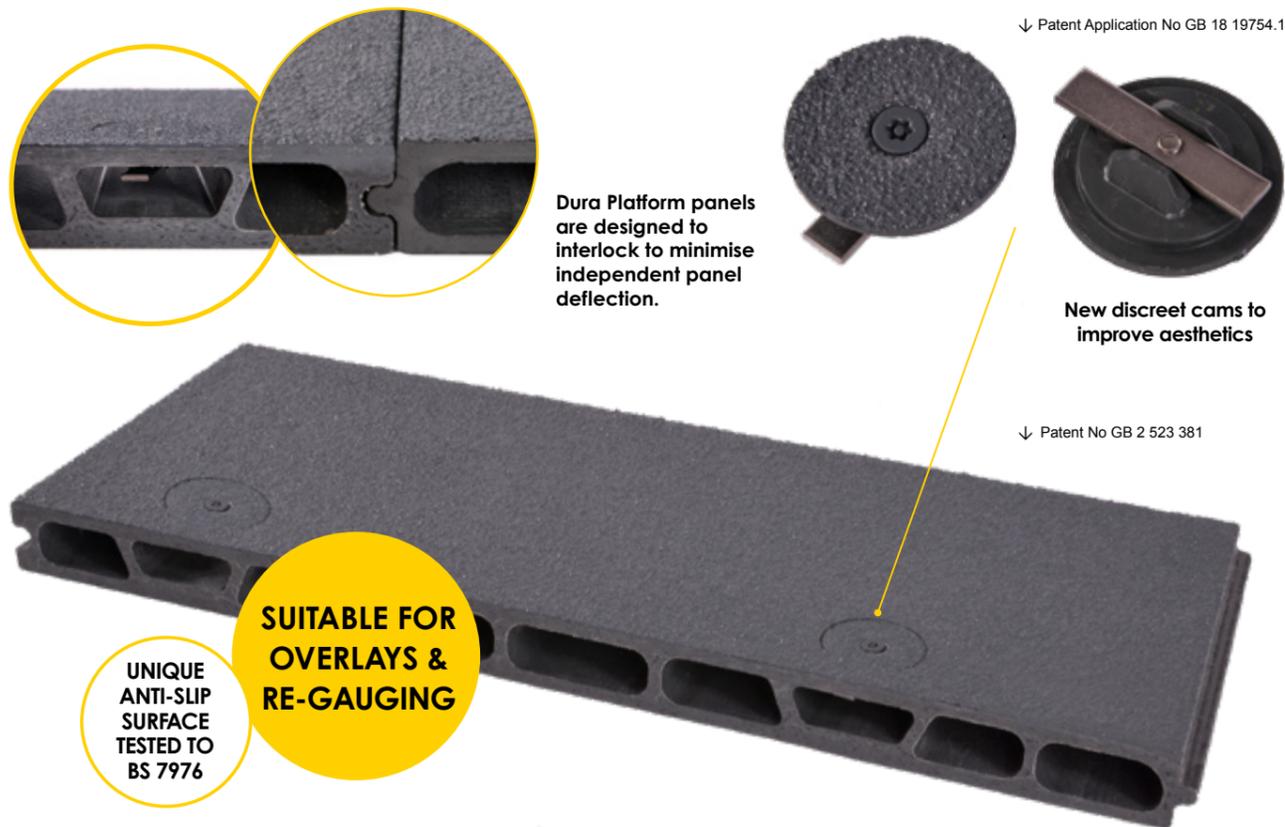
Dura Platform 40



Dura Platform 40 is ideal for use in scenarios where the substructure can be adapted to suit a 1.5m clear span. The key benefits of Dura Platform 40 are the cost, weight, and modular install methodology advantage.

Key Benefits

- Span of 1.5m per 5kN/m² UDL
- Solid Surface on the 600mm Plank
- Aesthetically Pleasing Finish
- Design Life of 60+ years
- Reduce On-site Fabrication
- Improved Heating Distribution
- Improved Fire Performance (Network Rail Approved)
- Cost Effective Pricing



SUITABLE FOR OVERLAYS & RE-GAUGING

UNIQUE ANTI-SLIP SURFACE TESTED TO BS 7976

Achieves a clear span of 1500mm with a 5kN UDL at L/300 deflection. Weight per m² = 35.55kgs / Approx. m²

3 Panel Types Available

Coper panel

Weight per linear metre: **24.41kg**
 Panel dimensions: **2995mm L x 600mm W x 40mm H**

Tactile panel

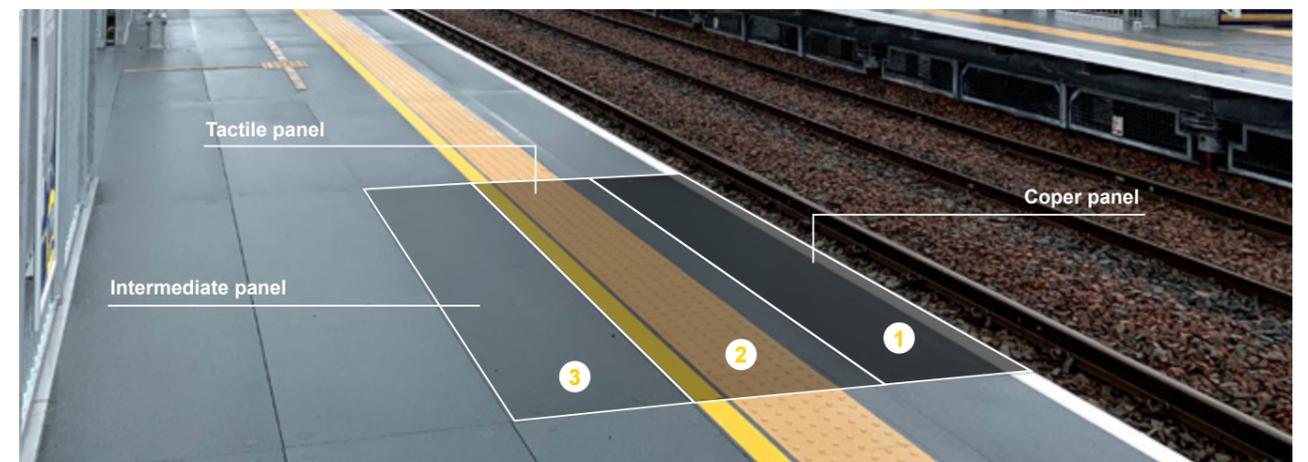
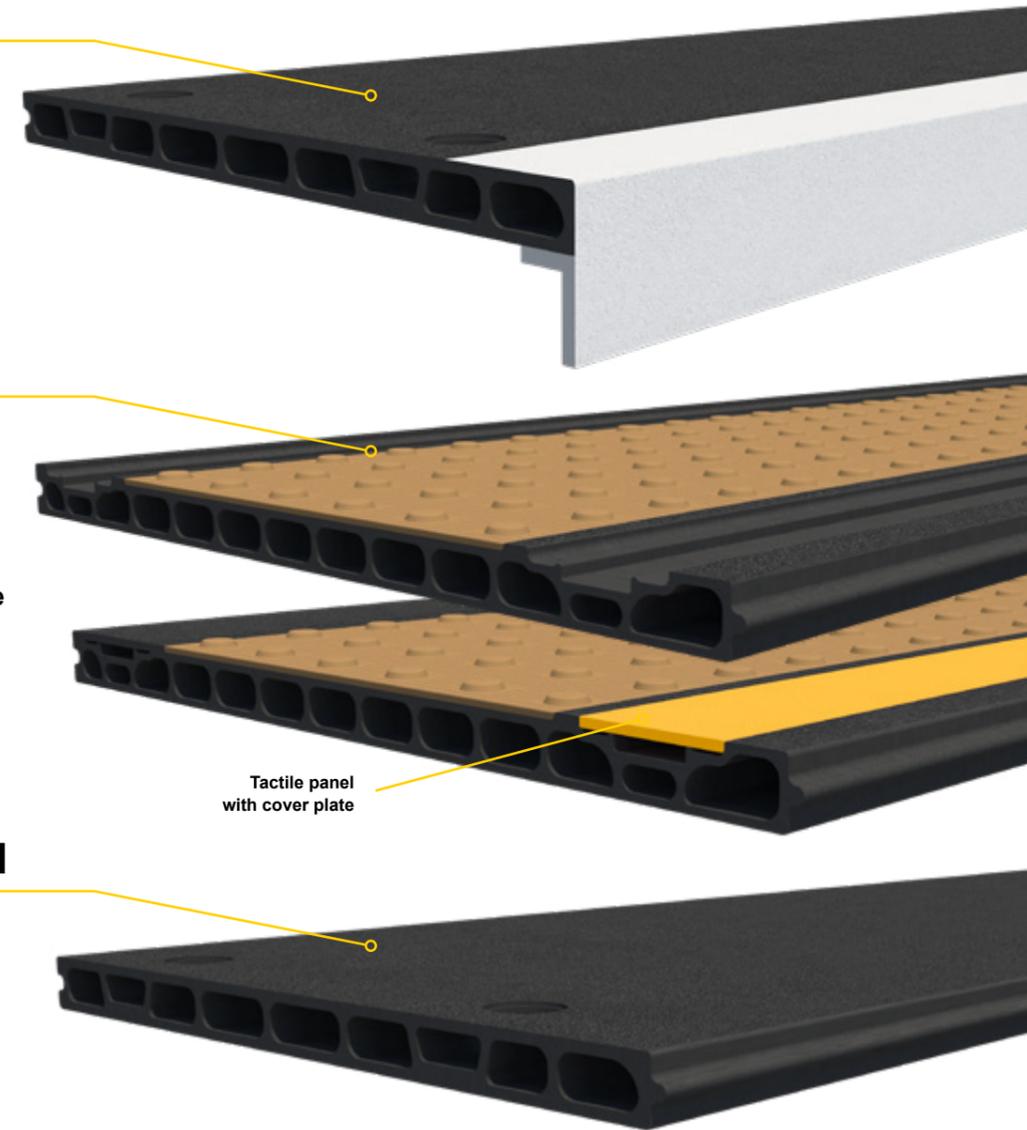
Weight per linear metre: **20.29kg**
 Panel dimensions: **2995mm L x 700mm W x 40mm H**

Tactile panel with cover plate

Weight per linear metre: **21.91kg**
 Panel dimensions: **2995mm L x 700mm W x 40mm H**

Intermediate panel

Weight per linear metre: **23.81kg**
 Panel dimensions: **2995mm L x 600mm W x 40mm H**



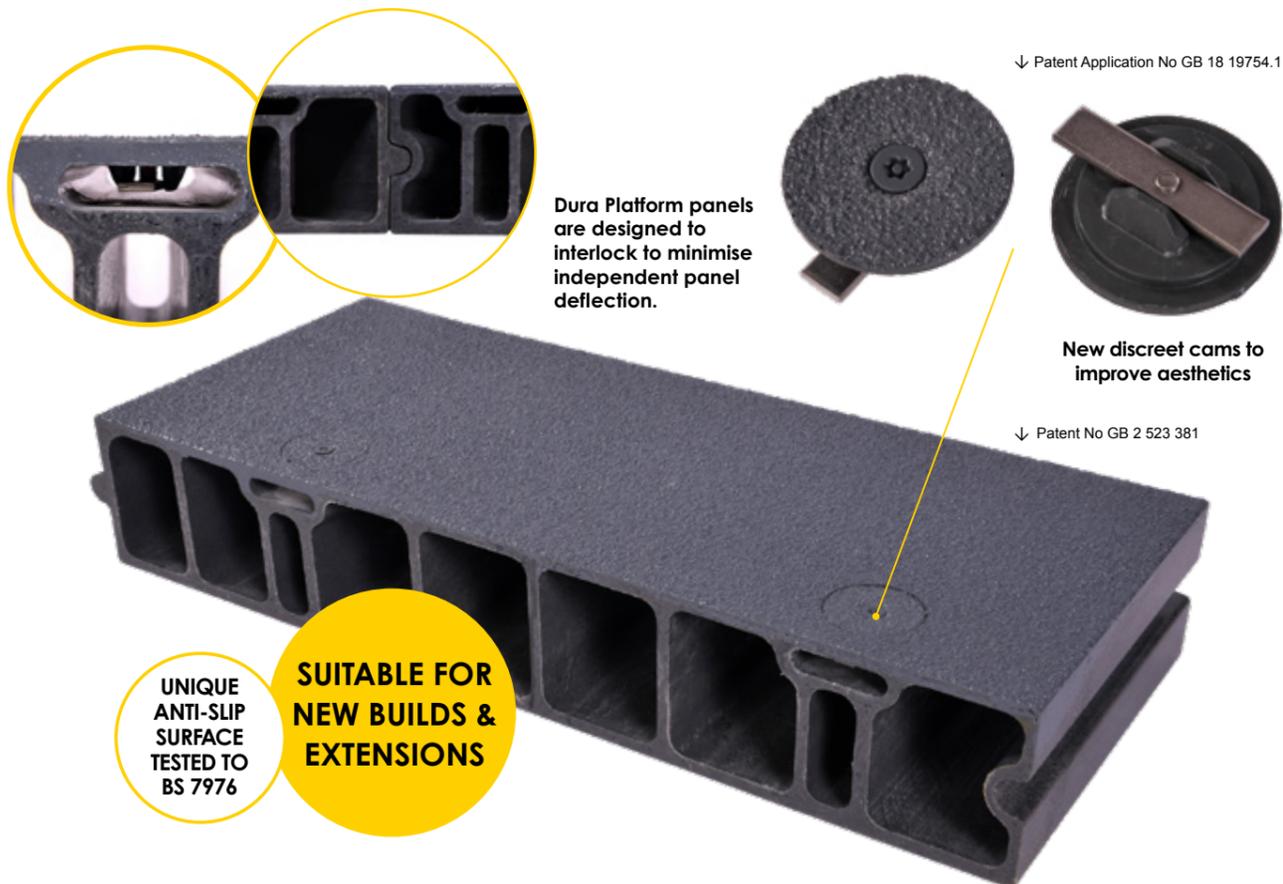
Dura Platform 100



Dura Platform 100 is ideal for use in scenarios where the substructure cannot be altered and the requirement is to create a clear span up to 3.2m within the 5kN/m² loading.

Key Benefits

- Span of 3.2m per 5kN/m² UDL
- Solid Surface on the 600mm Plank
- Aesthetically Pleasing Finish
- Design Life of 60+ years
- Reduce On-site Fabrication
- Improved Heating Distribution
- Improved fire Performance (Network Rail Approved)
- Cost Effective Pricing



UNIQUE ANTI-SLIP SURFACE TESTED TO BS 7976

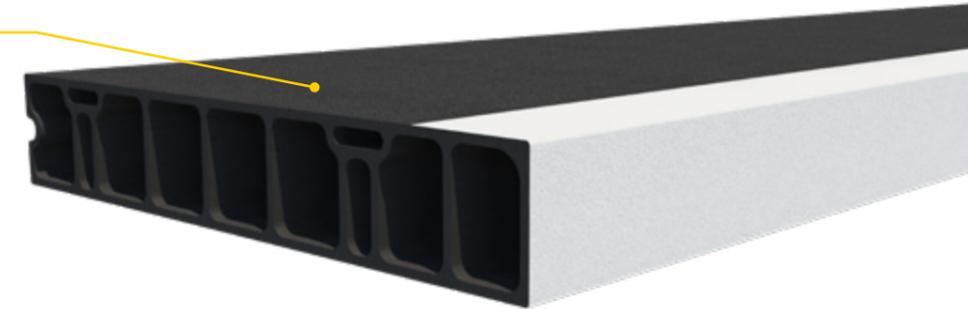
SUITABLE FOR NEW BUILDS & EXTENSIONS

Achieves a clear span of 3200mm with a 5kN UDL at L/300 deflection. Weight per m² = 50.45kgs Approx. m²

3 Panel Types Available

Coper panel

Weight per linear metre: 33.15kg
 Panel dimensions: 3800mm L x 600mm W x 100mm H



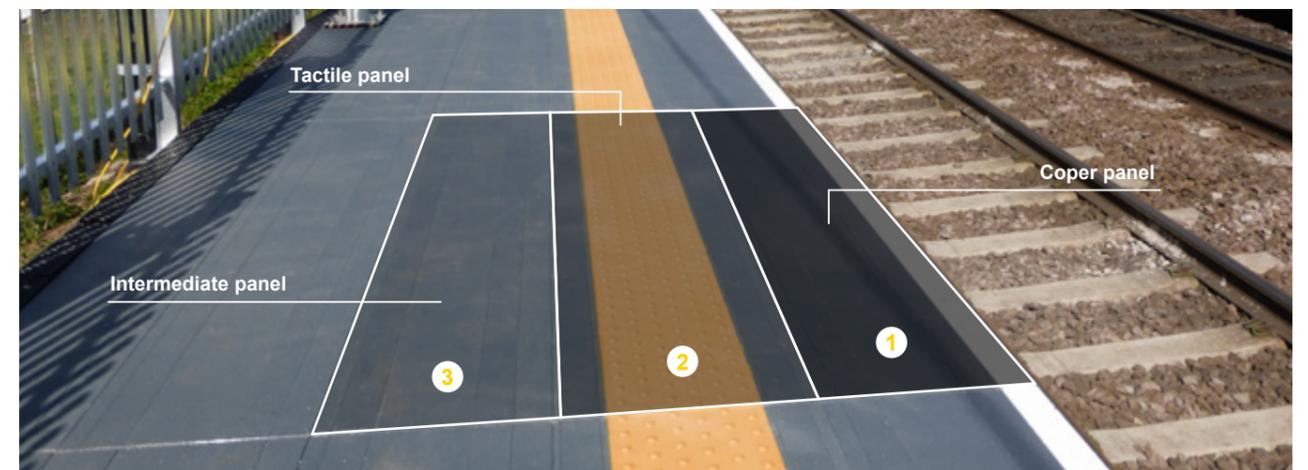
Tactile panel

Weight per linear metre: 37.59kg
 Panel dimensions: 3800mm L x 700mm W x 100mm H



Intermediate panel

Weight per linear metre: 33.15kg
 Panel dimensions: 3800mm L x 600mm W x 100mm H



Dura Platform Options

There are a range of options which can be specified for both Dura Platform 40 and 100, such as fully integrated tactile recesses, illumination of the coped and integrated heating to remove frost & ice build up.

Lighting Options

Available in both single or double lighting strips in white, blue or other colours, the Dura Platform LEDs present no trip hazard.

Safe and visible, the LED strips are low maintenance, have low overall running costs and have an instant aesthetic impact, making platforms appear lighter and brighter.



Surface Treatment

Dura Platform has been developed with an extremely hard wearing anti-slip finish as standard, in an attractive dark grey colour which suits all station environments. The surface is easy to maintain and over-achieves on Network Rail's anti-slip specification in both wet and dry conditions.

Dura Composites' unique high specification composition has been rigorously tested (in accordance with BS 7976-2:2002+A1:2013) and achieves ultra-low slip potential in both wet and dry conditions.

We've gone above and beyond the standard testing procedure used by others and invested further to ensure that our test conditions simulated the effects of more than 3 months' worth of pendulum testing, to accurately assess the long-term performance and durability of Dura Platform.



Heating Options



Snow and ice can cause serious problems for the railways. Drifting snow from platforms and embankments can coat the electrified rail, preventing trains from drawing power and blocking lines and snow and ice on platforms can delay passengers and cause painful trips and falls.

Traditional methods of snow and ice removal by station operators such as manual sweeping and salting or chemical de-icing are labour-intensive, have limited effectiveness and cause accelerated

corrosion and deterioration of the platform and support structures.

Dura Platform can be specified with an integral heating system to keep platforms free of snow and ice in extreme weather conditions.

Dura Composites' innovative Platform Heating System removes the need for cost-intensive snow and ice clearing, whilst at the same time increasing platform safety for station users.

Hatches

Underslung services can be easily introduced in accessible locations with hatch access for simplified M&E maintenance and installation.

To discuss hatch options please contact your Dura representative.



Trash / Debris Screens

Dura Composites trash and debris screens can be easily added to help reduce debris build up under the platform structure which could become a fire hazard. Made from our high strength, but low weight Dura Grating and Dura Profile, they are suitable for both new build and platform refurbishments, and also help assist with rodent control.



End of Platform Gates and Fences

Dura Composites' End of Platform gates and fencing have been developed as an alternative to steel due to their non-conductive properties, making them extremely suitable for electrified rail environments.

Made from strong but lightweight GRP, they can be used for a wide range of station applications such as end of platform gates, platform perimeter fencing and screening of electrical works.

We can supply self-closing gates to complement our handrail systems. Gates are provided with spring assembly and can be hinged to an adjoining handrail stanchion or bolted to a suitable fixing plate.



NON-CONDUCTIVE AND LIGHTWEIGHT



End of Platform Steps, King's Cross Station, London

Case Study

End of Platform Steps

Our end-of-platform steps are made from high strength, GRP pultruded sections and are a lightweight solution which can be installed rapidly to keep the station operating smoothly.

Weighing up to 80% less than steel and 30% less than aluminium, they offer equivalent performance for considerably less weight. This results in major

savings including lower installation costs due to more economical transportation, handling and on-site positioning.

As well as fully fabricated non-corrosive and non-conductive single unit GRP end of platform steps we can also supply in component or flat pack kit form ready for quick assembly on-site.



Mounted Tactile Surface & Wayfinding



Dura Composites recommends the market leading tactile solution from Viztek Ltd.

Viztek are the only company in the UK that both manufacture and install surface mounted tactile paving, providing a one stop shop. When combined with Dura Composites' platform, footbridge and walkway products, the tactiles offer an ideal solution for navigation and disability routes.

Tactiles, with their raised dots or stripes, provide both warning and information to vision-impaired people to help make the station environment more accessible.

They provide a good contrast in colour with the surrounding flooring area to assist visually impaired people to understand that they should proceed with caution.

King's Cross Station

AMCO GIFFEN

Product

End of Platform Steps

King's Cross Station is the southern terminus for the East Coast Main Line, which is one of Britain's major railroad arteries serving cities such as Leeds, Newcastle and Edinburgh. It also hosts outer-suburban services to Bedfordshire, Hertfordshire and Cambridgeshire.

The original station opened in 1852 with two platforms but by 1972, the station had 11 platforms and needed a significant upgrade to cope with projected demand of 47 million people per year and to provide a better interchange for passengers. Known as the King's Cross Station Redevelopment

Programme, one of the facets of this complex project involved the reconstruction of platforms 1 and 8 and shortening of platforms 5 to 8 to enlarge the concourse.

Contractor AmcoGiffen selected Dura Composites to design and fabricate 6 sets of GRP End of Platform Steps which were installed by Amco in a very short time frame to meet the needs of the tight project timescales.

Weighing up to 80% less than steel and 30% less than aluminium, Dura Composites End of Platform Steps offer equivalent performance for considerably

less weight. This results in major savings including lower installation costs due to more economical transportation, handling and on-site positioning.

The client was delighted with the quality of the design and workmanship and with Dura's ability to turn the fabrications around in such a short space of time, describing the structures as having "gone in like a dream".

As well as fully fabricated non-corrosive and non-conductive single unit GRP end of platform steps Dura Composites can also supply in component or flat pack kit form ready for quick assembly on-site.

Key Benefits

Part of the King's Cross Station Redevelopment Programme, these GRP End of Platform Steps were designed, fabricated and delivered by Dura to meet the tight project timescale.



Network Rail Compliant



Fast Install Times



Low Maintenance



Anti-Slip Surface



Installation

GRP/Steel Hybrid Platform Solution

Our recommended GRP/Steel Hybrid solution for new build platform construction and platform extensions.

The Dura Composites solution for Network Rail standard NR/L3/CIV/030 compliant station platform construction combines the strength of a steel foundation with a Glass Reinforced Polymer (GRP) Dura Platform surface providing an optimal solution that's quicker, safer and more cost-effective than other traditional methods.

Using steel foundations gives the hybrid solution the strength it needs, using fewer struts. A reduction in support struts

means install time is faster and fewer possessions of the station are needed to install which can result in savings from possessions of up to 42%*

In 2020 the Dura Platform rapid-deployment solution won the coveted Queen's Award for Enterprise Innovation in recognition of its commercial success and unique patented features which promote rapid deployment and enhanced passenger safety.

*Please consult your Dura representative for further information.



Fence loading transferred to transverse beams



**SUITABLE FOR
NEW BUILDS &
EXTENSIONS**



Transverse beams

Key Benefits

Combines the strength of a steel foundation with a rapid-deployment hard-wearing GRP Dura Platform surface.



ANTI-SLIP SURFACE

- Anti-slip surface proven to reduce by just 5% after 1.1 million footfalls
- Hidden fixing system minimises trip hazards
- Panels are fully tested and compliant with horizontal and lateral load tests



VERSATILE SYSTEM

- Easily manages panel 'creep' and concave or convex curvature
- Crankable to create instant 1:40 fall to manage drainage
- Neat transitions achievable from old to new platforms
- Manages curves and falls



SAVES TIME & COST

- Requires fewer track possessions than conventional re-build approach
- Enhances passenger safety
- Minimises passenger disruption



60 YEAR DESIGN LIFE FOR PLATFORMS

- Sustainable product due to extensive design life
- Multi-award winning & patented design
- Complies with fire safety standards set by Network Rail
(Network Rail TQ-51_R – Appendix A: Specification & Testing Requirements for GRP)

ADJUSTABLE PTI



FULLY ADJUSTABLE SUBSTRUCTURE SPAN

- Largest on the market
- Reduces as much as 60% of footings
- Up to 2500kgs or 87.5% lighter
- Saves groundwork & labour costs



120 YEAR DESIGN LIFE FOR SUBSTRUCTURE

- Protective coating on steel prevents corrosion
- UV tested to over 5000 hours to ensure colour stability



EASY UPGRADE OF STATION FACILITIES

- Easily accessible underground services
- Integrated cable management
- Caters for subsidence or ballast adjustment or new rolling stock



SUITABLE FOR
OVERLAYS &
RE-GAUGING

Installation

Mountbridge™ Platform Solution

A platform refurbishment solution, fully compatible with Dura Platform panels, which allows for easy stepping distance adjustments.

The Mountbridge™ system from Hammond ecs ltd is an adjustable, extended lifecycle platform upgrade system that overlays the existing platform structure to eliminate PTI stepping distance issues at stations.

This reduces the time, cost, mess and disruption associated with excavation and removal of existing structures and speeds up installation, meaning less inconvenience and disruption to passengers.

The Mountbridge™ system is fully compatible with the patented Dura Platform Glass Reinforced Polymer (GRP) 40 and 100 platform surface panels, which require minimal maintenance, negate the requirement for repainting of white/yellow lines and can incorporate a yellow high visibility tactile pad recessed into the surface for enhanced safety.



Key Benefits

Can be easily deployed to rectify Passenger Train Interface (PTI) stepping distance issues.

BUILT-IN PTI AND FALL MANAGEMENT

- The combination of GRP plates and pedestals with integrated slope correctors allows for easy height and pitch adjustment of the platform and can incorporate a 1:40 fall to aid water runoff.

LESS PASSENGER DISRUPTION

- System allows preparation work to begin during engineering hours, which results in less passenger disruption and more efficient use of possession times.

60 YEAR DESIGN LIFE FOR PLATFORMS

- Sustainable product due to extensive design life
- Multi-award winning & patented design
- Complies with fire safety standards set by Network Rail
(Network Rail TQ-51_R – Appendix A: Specification & Testing Requirements for GRP)

SAVES TIME & COST

- Can be rapidly installed to bring platform stepping distances back into compliance.
- Minimises passenger disruption

MODULAR SYSTEM

- Available in two variants - one with GRP plates and pedestals suited to platform overlays to solve PTI challenges (in compliance with RIS-7016-INS 3.4), and the other using a combination of plates, pedestals and structural wide flange beam to facilitate platform extensions and increase passenger capacity (in compliance with RIS-7016-INS 3.1).

EASY UPGRADE FOR LIMITED ACCESS

- Particularly efficient in locations where traditional build systems are not suitable due to limited access, restricted possession times and/or passenger disruption concerns.

Commenting on the project, **Richard Palmer, Rail Sector Manager** at Dura Composites said;

"This major upgrade of work offers a more frequent service and allowed for the introduction of new trains in November 2021. A fascinating project to be a part of thanks largely to its rapid deployment ability, the Dura Platform and the Mountbridge System has been proven on a large scale to be a better option for improving infrastructure versus traditional materials and civil engineering construction methods."

Case Study

Island Line, Isle of Wight



Product	Dura Platform 40
Installation Type	Overlay
Installation Method	Mountbridge™



The Island Line and its associated infrastructure on the Isle of Wight in the UK has recently been upgraded to offer a more frequent service and introduce a refurbished fleet of Class 484 trains. Key to the project was creating improved accessibility between the train and the station platform to allow the new trains to operate effectively.

This was achieved by deploying GRP Dura Platform panels from Dura Composites in conjunction with the Mountbridge™ system from Hammond ecs ltd to raise the platform gauge by

up to 400mm at 5 stations on the Island Line, including Ryde Pier Head.

OSL Global, a UK-based rail engineering and signalling company, was selected to deliver the upgrade of the Island Line under a Joint Contracts Tribunal (JCT) design and build contract and chose Dura Platform to solve the stepping distance issue between the new planned trains and the platform edge. The patented 40mm Dura Platform solution (Patent No GB 2 523 381) has a span of 1.5m per 5kN/m2 UDL and delivers multiple benefits in terms of faster, safer and easier installation, reducing time on

site, therefore reducing disruption to passengers, and providing major cost savings versus traditional materials such as concrete.

The platform panels can accommodate fully integrated tactile recesses, illumination of the copers and integrated heating to remove frost & ice build up and reduce the future maintenance burden of the platforms. Despite the challenges of the Covid-19 pandemic, the £26 million pound project was completed late 2021, with the line reopening to serve the 1.5 million passengers who travel on the line each year with a more accessible and future-proof railway service.

Key Benefits

A platform refurbishment solution, fully compatible with Dura Platform panels, which allows for easy stepping distance adjustments.



Save Time



Saves Money



Minimal Passenger Disruption



Concealed Fixings



Non Sparking



Robroyston Station was officially opened by **Cabinet Secretary for Transport, Infrastructure, and Connectivity Michael Matheson** who commented:

"Robroyston station shows what we are doing to encourage people to make use of rail services across Scotland."

David Lister, ScotRail Sustainability And Safety Assurance Director, added:

"Our investment in Robroyston station, as well as the facilities it brings to the local area, is the benchmark for how we can encourage more people out of their cars and onto low-carbon forms of transport."

AFTER



Case Study

Robroyston Station

Product	Dura Platform 40
Installation Type	New Build
Installation Method	Hybrid

The development includes step-free platform access, together with two car parks with a total of 258 spaces, offering a new 'park and ride' facility for people driving into Glasgow along the nearby M80.

Robroyston station features two brand new platforms constructed using the Dura Composites recommended hybrid GRP and steel solution which is designed to meet the requirements of Network Rail standard NR/L3/CIV/030 and combines the strength of a steel foundation with a Glass Reinforced Polymer (GRP) Dura Platform surface. The platform surface

has incredible durability and anti-slip properties which is shown to reduce by only 5% after a million footfalls (tested to BS 7976-2:2002+A1:2013).

AmcoGiffen were responsible for delivering the design and build works for the development, with funding for the station coming from Glasgow City Council, Network Rail and the Strathclyde Partnership for Transport. In choosing the GRP/Steel system from Dura Composites, the platform installation for the project (using GRP Dura Platform and steel trestles) has been able to take place largely while the line is open, minimising the impact on customers using the line.



Key Benefits

This new build rail station features 2 x 150m Dura Platforms on a steel substructure and won the Transport Team/Partnership of the Year Prize at the Scottish Transport Awards.



Save Time



Saves Money



Minimal Passenger Disruption



Concealed Fixings



Non Sparking

A Greater Anglia spokeswoman said;

"We have been prioritising improvements which bring significant benefits for our customer base and are confident that the end result will be welcomed by customers at Saxmundham. The platform upgrade work complements the new, longer trains which are now running on the line."

Case Study

AFTER

Commenting on the installation of Dura Platform at Needham Market, which took just 36 hours, **Simone Bailey, Asset Management Director at Greater Anglia** said;

"We are always looking to improve stations for the customers and communities we serve. This innovative approach delivers a better platform for passengers, which is durable, more cost effective and quicker and easier to install".

Case Study

AFTER

Mountbridge™ system from Hammond ecs Ltd

Saxmundham Station

Product	Dura Platform 40
Installation Type	Re-Gauging
Installation Method	Bespoke

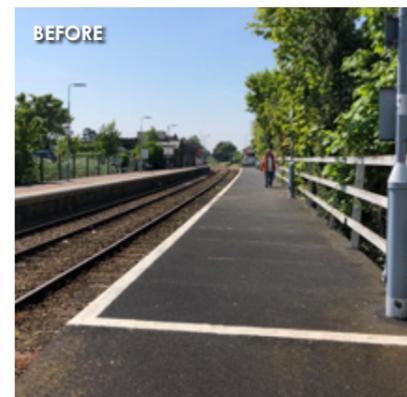


Greater Anglia is in the process of delivering major transformation across the network, with a £1.4 billion investment in improvements to its services.

This includes a programme of making the entering and exiting of trains easier for passengers with limited mobility and other improvements across stations, including recent updates to Saxmundham Station in Suffolk where the degraded timber platform was replaced with a new adjustable GRP Dura Platform solution in just 9 days! Dura Composites is proud to have collaborated with our industry

partners Roberts and Sale Construction and Greater Anglia on this rewarding platform upgrade project, which went from contract awarded to design, supply and install within a matter of 8 weeks.

Dura Platform panels were supplied from our extensive UK stockholding and improvements to the platform train interface (PTI) have particularly benefited passengers with luggage, buggies and those using wheelchairs. The successful delivery of projects like these using innovative materials such as Dura Platform is what has led to Greater Anglia being awarded Train Operator of the Year and Accessibility and Integrated Transport Excellence at the Rail Business Awards.



Key Benefits

The rapid-deployment Dura Platform solution consists of highly engineered GRP panels in modular lightweight sections for fast install. This project was supplied from UK stock in a matter of weeks.

- Save Time
- Saves Money
- Minimal Passenger Disruption
- Concealed Fixings
- Non Sparking

Needham Market Station

Product	Dura Platform 100
Installation Type	Refurbishment
Installation Method	Mountbridge™

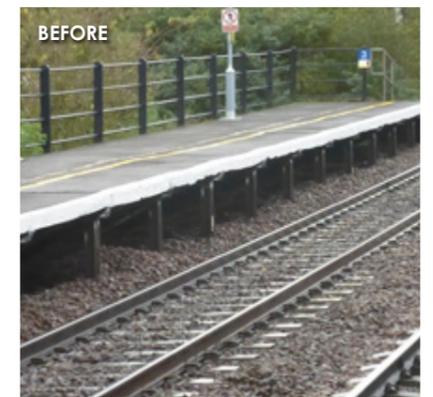


Needham Market is a railway station situated in the East of England, operated by Greater Anglia. The previous concrete platform at Platform 2 was replaced with a new GRP platform designed and built by our industry award winning partners Hammond ecs Ltd who deployed their patented Mountbridge™ system featuring our patented Dura Platform 100.

Dura Platform has a host of revolutionary features and allows contractors to replace or overlay onto damaged or subsided platforms a low maintenance,

modular, lightweight, height adjustable structure that enhances safety and has similar or lower overall project costs than concrete.

All major platform works were conducted safely in under 36 hours over a single weekend! The project was a great success and even achieved positive feedback from local residents who were shocked to see the transformation as they headed off on their Monday commutes with no disruption.



Key Benefits

The solution was developed following an in depth consultation and planning process with key stakeholders Greater Anglia and Network Rail, to ensure the financial considerations of the operators and the needs of passengers were fully considered.

- Save Time
- Saves Money
- Minimal Passenger Disruption
- Concealed Fixings
- Non Sparking

Products

Associated Station Products

Structural Landings, Structural Stair Treads, Stair Tread Nosing Strips, Footbridge Wall Linings and Soffits and Station Canopies.

Dura Composites combines a deep understanding of the needs of the Rail industry with years of design innovation and product development expertise to provide an unrivalled passenger experience.

Our ancillary station products include lightweight, durable composite Pedestrian Footbridges, Wall Linings and Soffit

Panels and Dagger Board, which achieve EN13501 Class B-s1, d0 fire rating.

We also design and supply award winning footbridge treads and landings, end of platform gates and fencing. Read on to discover more...

Key Benefits

Dura Composites extensive product range also includes a range of other rapid-fit, low maintenance composite solutions that help accelerate improvement and refurbishment works across railway infrastructure.



Save Time



Strength



Improved Lifestyle



Fire Resistance



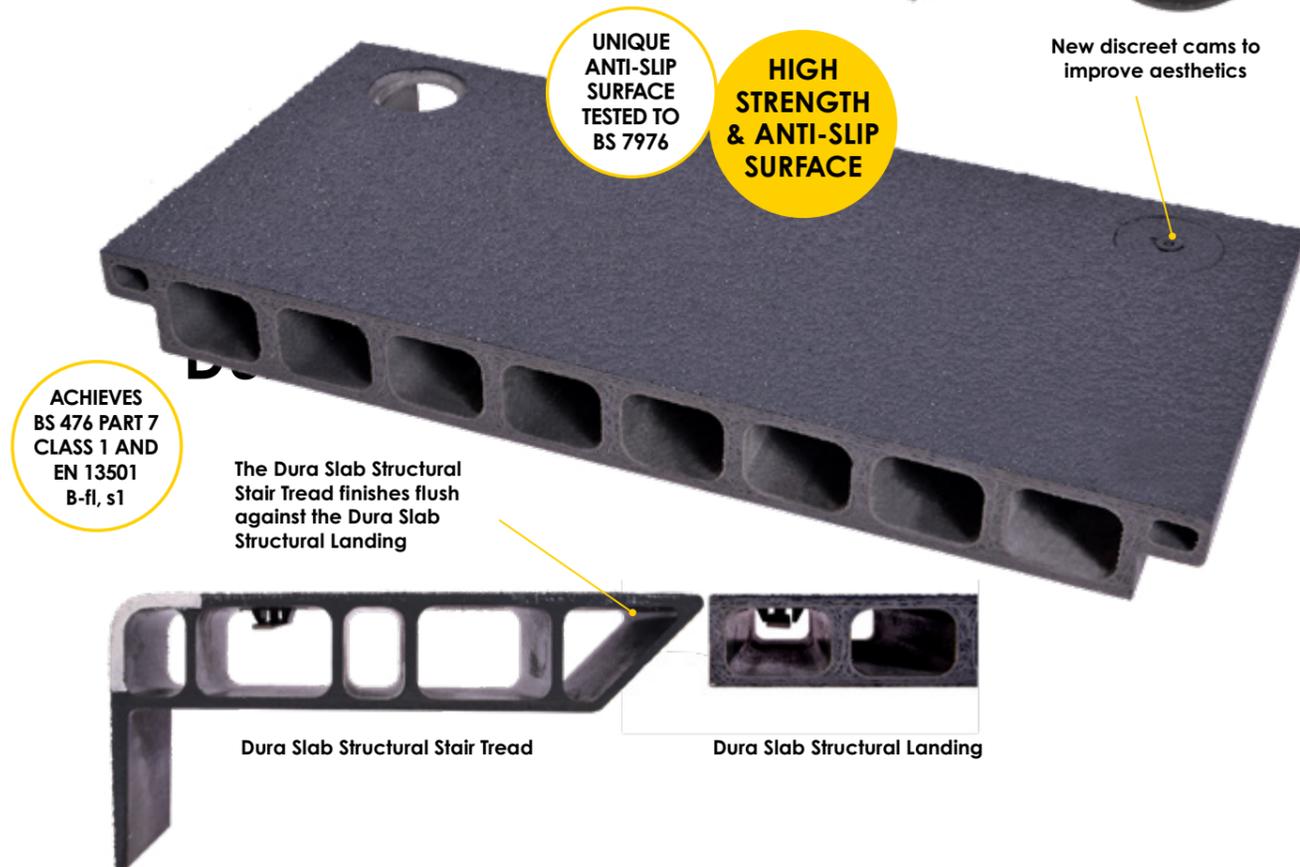
Low Maintenance

Main photo: Dura Slab Structural Landings and Stair Treads

Structural Landings

Pedestrian Footbridges

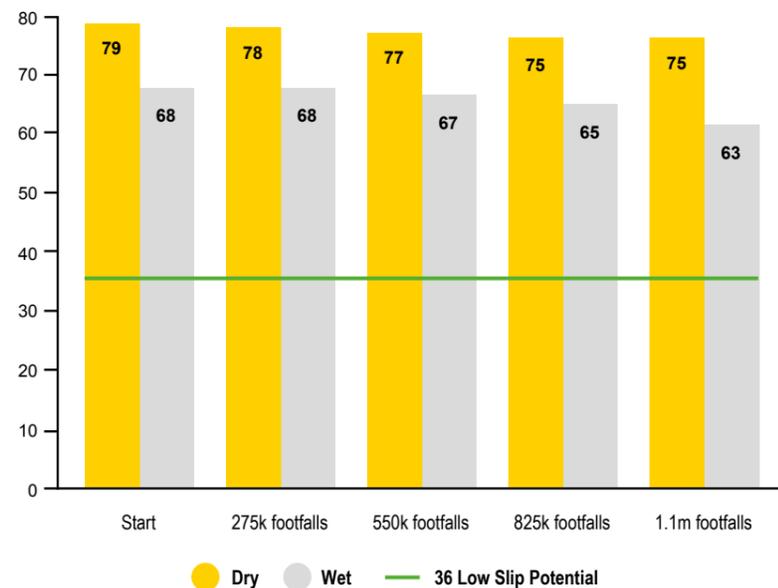
Working in conjunction with the NEW Dura Slab Structural Treads, Dura Composites offer landing panels which can span up to 2.4m clear span (50mm thick option), achieving 5kN/m² at L/200 deflection or up to 3.2m (using the 100mm option).



New Tri-Tone Grit Surface

The unique high specification Tri-Tone Grit surface composition achieves ultra-low slip potential in both wet and dry conditions in accordance with BS 7976-2:2002+A1:2013. In fact, the slip potential of the surface is proven to reduce by a mere 5%, still achieving figures of 75 in the dry and 63 in the wet after an incredible 1 million footfalls.

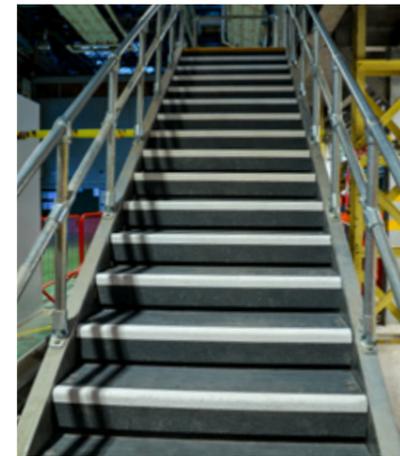
Tri-Tone Grit Surface



Structural Stair Treads

Dura Slab Structural Stair Treads and Landings are designed as a modular system, allowing the contractor huge flexibility both at the design stage and on site - speeding up install times and reduce costs, possessions and bridge closures, thereby limiting disruption to end users.

Where previous composite treads on the market have been limited in span capabilities, Dura Composites has the ability to span up to 2.1m clear open span, achieving the required 5kN/m²



at L/200 deflection and meaning that additional supports can be avoided in most scenarios.

The Dura Slab Structural Stair Tread design can be specified with built-in risers, speeding up the install process whilst increasing safety, particularly in scenarios where bridge treads are located near overhead lines or are

replacing open risers. Also included is a very slight fall to assist in the prevention of water pooling which can lead to problems with ice in the winter months. No heavy lifting equipment is needed as all panels can be easily manhandled even in full stock lengths.



Stair Tread Nosing Strips

Dura Tread Nosing Strips can be applied to a variety of stair tread materials such as concrete, wood, chequer plate or GRP grating to help mitigate the risk of slipping, tripping and falling. Quick and easy to install, Dura Tread Nosing Strips have a tough anti-slip gritted surface and are available in both Yellow and White to maximise visibility of the stair edge. Each piece is 1830mm long as standard and the profile dimension is 55mm x 55mm with a thickness of 4mm.

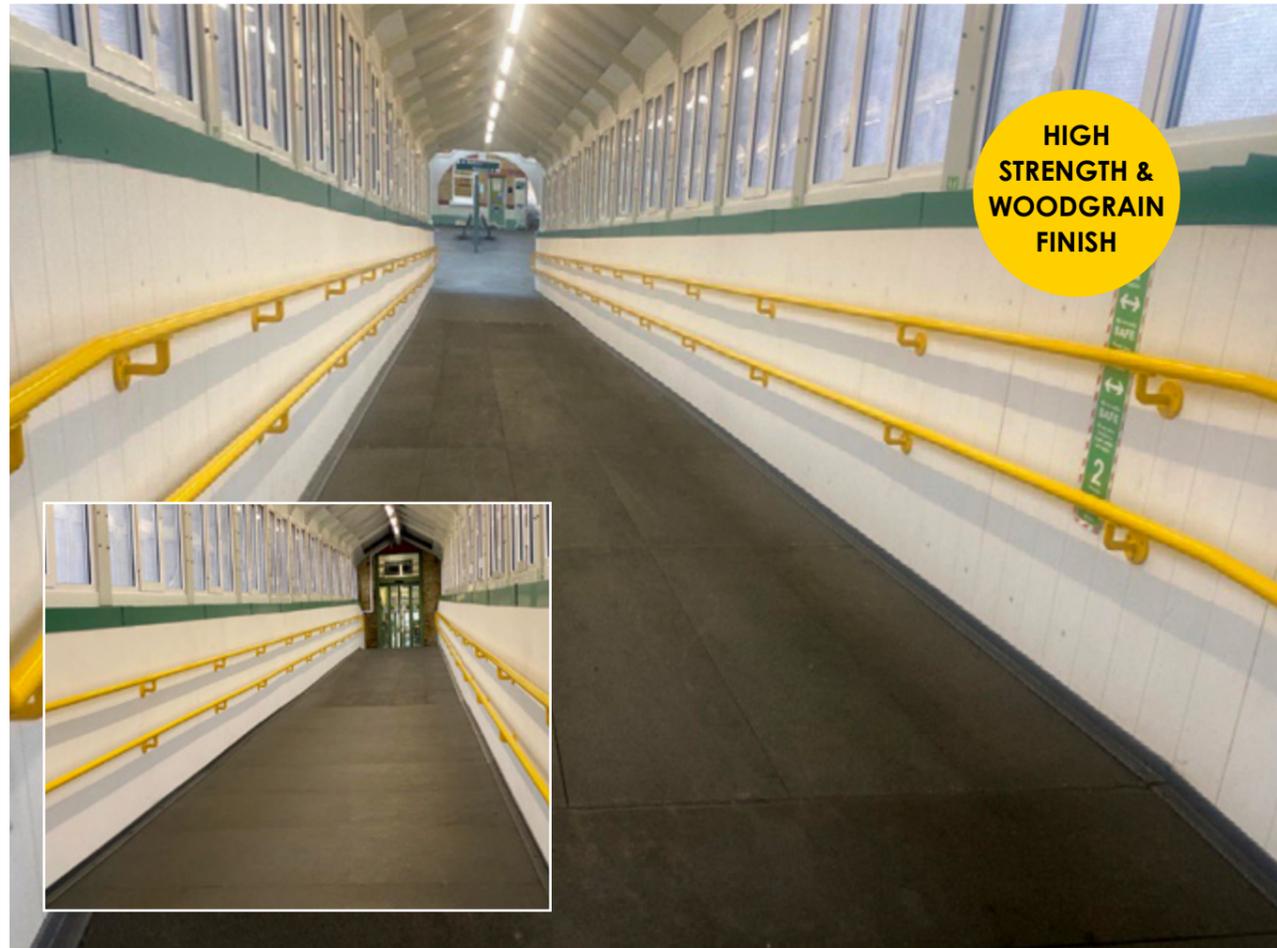
Choose Dura Tread Nosings for a quick, cost effective solution to improving safety in slippery or hazardous areas, and for areas used by the public.



Station Footbridge Walls & Ceilings

Dura Wall Lining & Soffit Panels

Utilising the same composite material design as our market-leading station platform Dura Dagger Boards, the panels have an attractive woodgrain effect finish which mimics traditional timber detailing but is more robust and requires significantly less maintenance over time.



Attractive, woodgrain finish without the maintenance

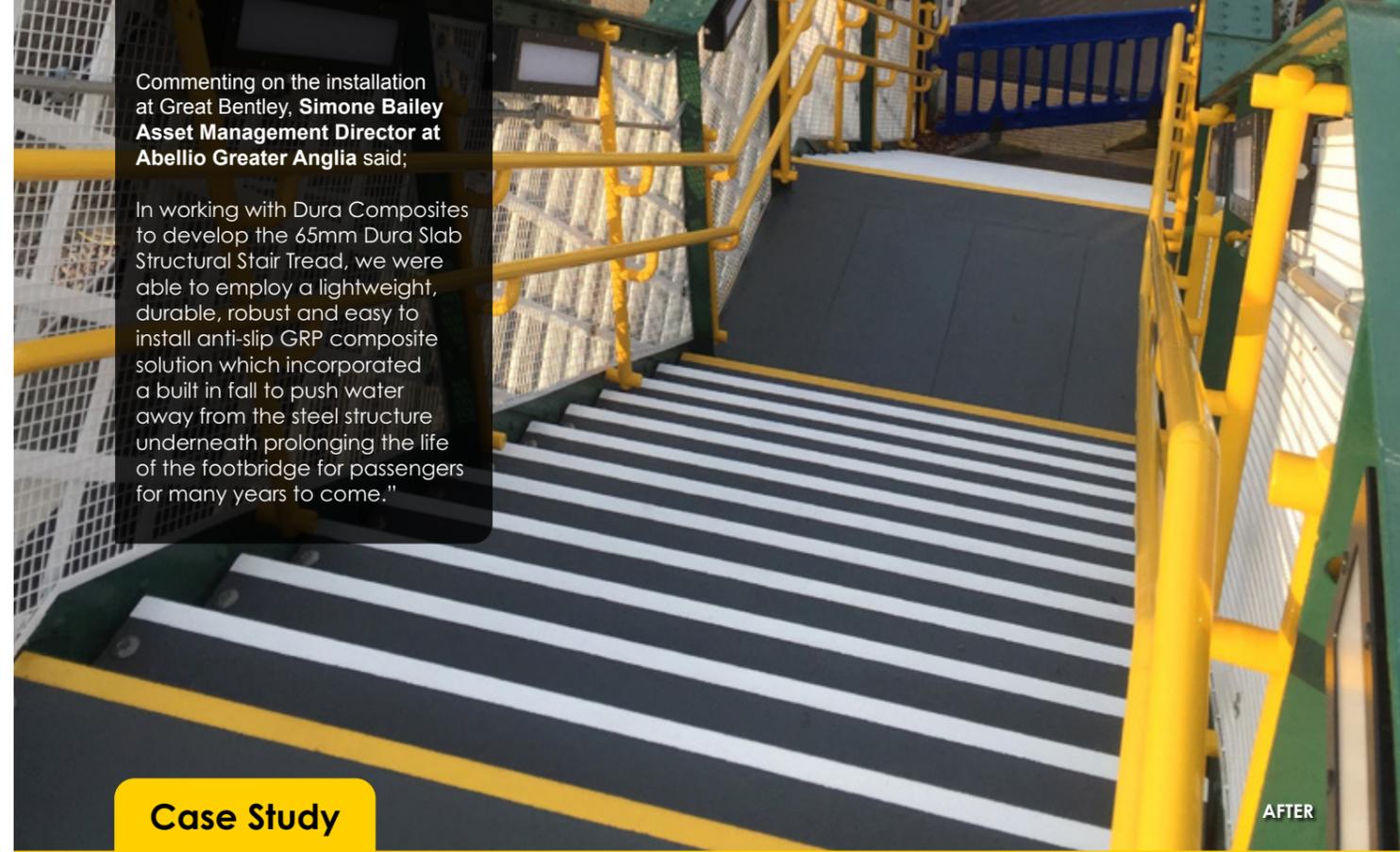
Our footbridge cladding and canopy soffit panels combine strength, durability and minimal maintenance allowing them to be used in a variety of station footbridge or platform applications either externally or internally as attractive panelling, soffits and fascias.

The composite panels are incredibly lightweight and meet the requirements

of BS EN 13501, allowing for footbridge parapets to be enclosed with less risk to passengers thanks to the Class B fire rating.

Dura Wall Lining & Soffit Panels are ideally suited to modular footbridge designs with differing span arrangements that can be modified for each unique location.

The material can also be used to replace worn timber soffit details under station canopies to give a modern clean look to the canopy whilst concealing the unsightly structure underneath. The lower weight nature of the composite means that panels can be quickly and easily removed if the substructure requires inspection or remedial works.



Great Bentley Station



Product Dura Slab Structural Stair Treads

First opened in 1866, Great Bentley train station is on the Great Eastern Main Line in the East of England. The station has two platforms and is managed by Greater Anglia.

The footbridge at the station was badly in need of refurbishment due to dangerous rotting wooden stair treads.

Working in partnership with Greater Anglia, the team at Dura Composites developed the award-winning Dura Slab Structural Stair Tread and Landings which are made from high-strength

Glass Reinforced Plastic (GRP) and incorporate a number of ground-breaking features designed to reduce project costs and installation times.

The refurbishment work at Great Bentley comprised bridge deck and tread replacements over the full span of the bridge, and the treads and landings were easily fixed into position thanks to their single unit construction.

Notable details include a built-in riser for rapid installation and an in-built fall to assist with drainage and reduce pooling on stair surfaces.



Key Benefits

Award-winning Dura Slab Structural Stair Treads are lightweight, meaning that the treads and landings can be easily fixed into position thanks to their single unit construction.

- 
Network Rail Compliant
- 
Fast Install Times
- 
Low Maintenance
- 
Anti-Slip Surface

Station Exterior & Platform Canopies

Dura Dagger Boards

Dura Composites' composite dagger boards are the ideal replacement material for timber in railway station canopy fascias. Made from durable composite material with a Class B fire rating in accordance with BS EN 13501, Dura Composites Dagger Boards mimic the appearance of traditional wooden valance boards but are simple to install and require virtually no maintenance over their 50 year design life.

Dagger boards have been common at UK stations since the late 1850s, and primarily served the practical function of removing water from the canopy and reducing weather-inflicted damage such as rot, thereby preventing deterioration of the canopy itself.

In addition to their practical functions, dagger boards were recognised as having positive decorative and aesthetic

qualities and were produced in a range of intricate designs.

However they are traditionally made from timber which requires extensive maintenance due to weathering, which can cause considerable disruption to passengers and station operators as rotten or warped boards normally need replacing in situ – leading to station platform closures.

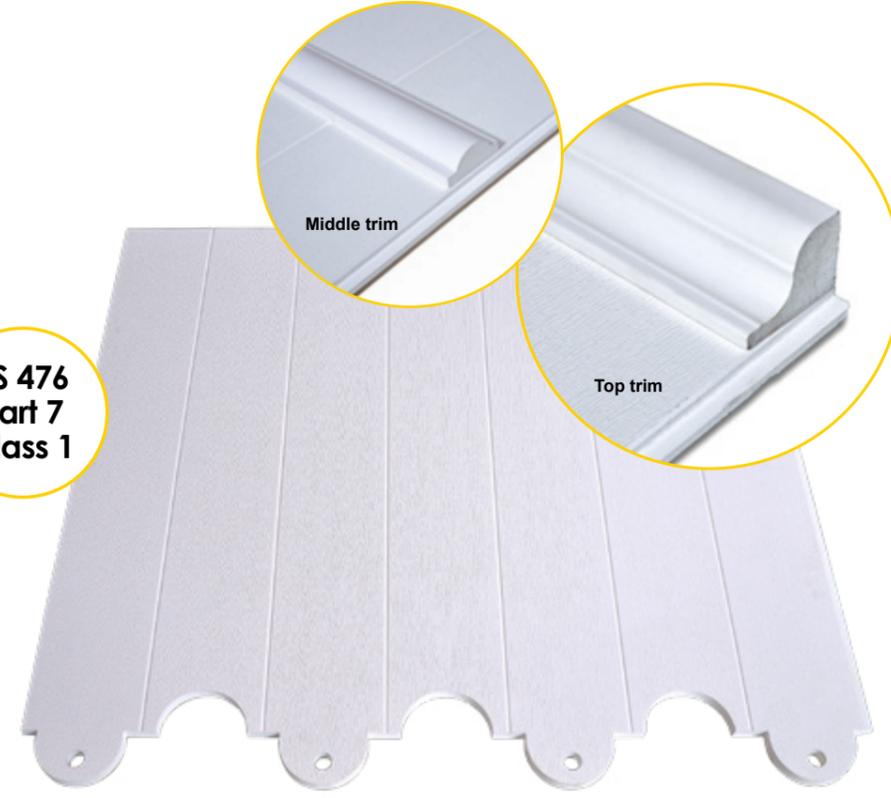
Dura Composites can help you Unlock the Power of Composites for your station canopy or fascia project. Dura Dagger Boards come in a range of attractive profiles, all of which are non-conductive and require minimal maintenance over their long lifecycle – eliminating the need for repainting or replacing damaged or rotted sections at height and saving time and money on site.

Dura Composites' 19mm and 25mm composite dagger boards mimic the appearance of traditional timber valance boards, but are lighter, simpler to install and require virtually no maintenance over their long design life.

Our patent pending design achieves a market-leading fire rating of B-s1,d0 in accordance with European Standards EN-13501-1 and provides both decorative and functional benefits. The shaping of the boards helps to keep passengers dry whilst maintaining natural light and ventilation within the canopy.

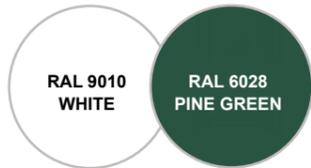
ACHIEVES B-s1, d0 IN ACCORDANCE WITH EN - 13501

BS 476 Part 7 Class 1



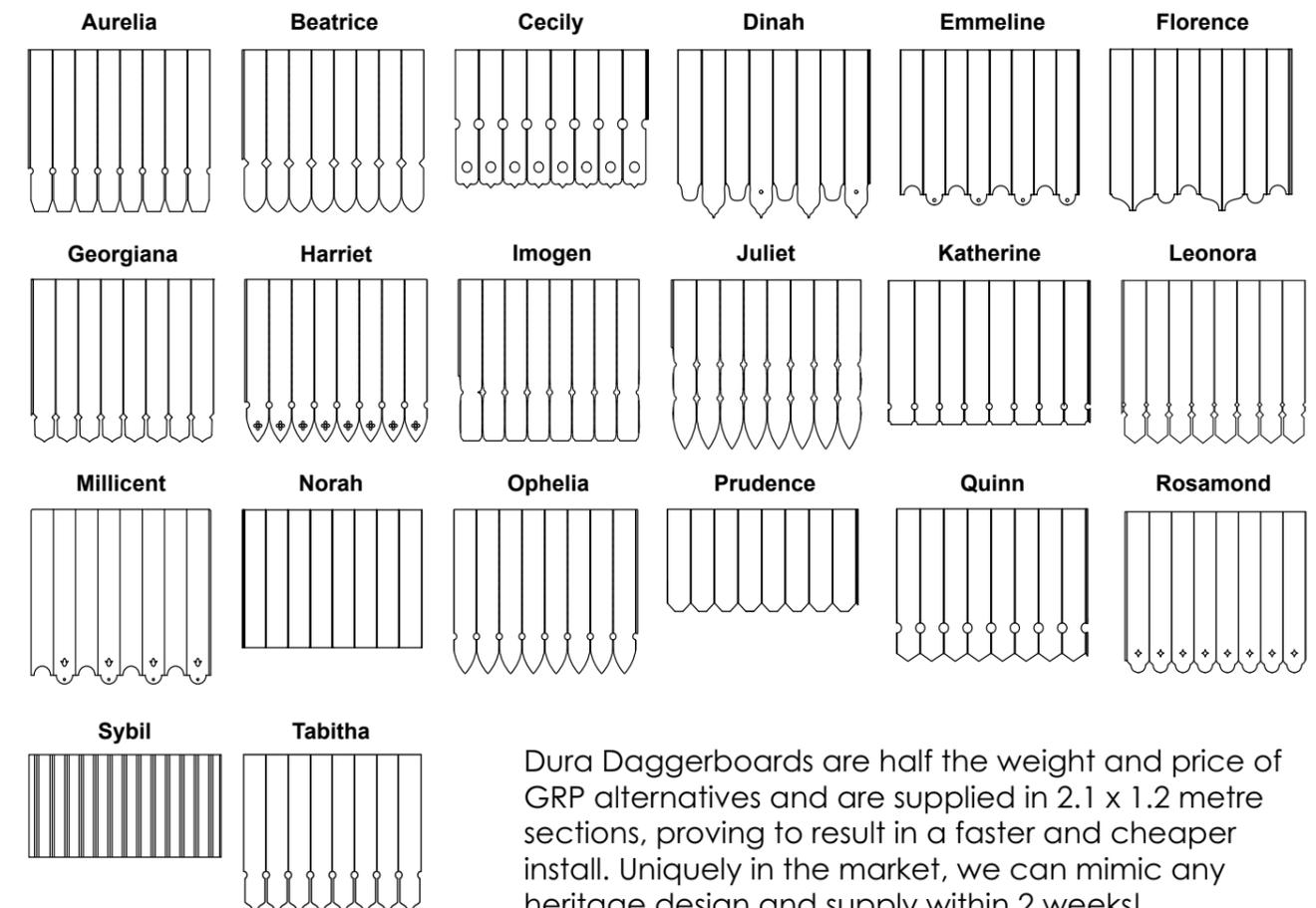
↑ Patent Application No. GB 19 05176.2

Colours available



Board styles

Dura Composites are able to supply custom designs to match existing station daggers.



Dura Daggerboards are half the weight and price of GRP alternatives and are supplied in 2.1 x 1.2 metre sections, proving to result in a faster and cheaper install. Uniquely in the market, we can mimic any heritage design and supply within 2 weeks!

Greater Anglia's Asset Management Director, **Simone Bailey**, said:

"We are delighted to have won an award for our project to restore Harlow Town, but even better, to have improved the appearance of the station for the local community and ensure that rail travel remains an attractive option into the future".



Case Study

AFTER

Harlow Town Station

Product Dura Dagger Boards

This project to restore Harlow Town rail station's faded exterior to its former glory won a national award in December 2020. Train operator, Greater Anglia, which manages the Grade II listed station, replaced all the old station fascias which were originally made from plywood, with new 'Hollybush Green' colour Dura Dagger Board.

The original striking green colour of the plywood fascias had over time been re-painted with white which altered the character of the station facade and were badly degraded and in need of repair.

The replacement composite fascias made from Dura Daggerboard were rapidly installed, will be maintenance free and prevent the colour from fading for many years to come. The work, which was made possible thanks to funding from the Railway Heritage Trust, received the BAM Nuttall Partnership Award at the National Railway Heritage Awards.

Commenting on the project, Andy Savage, Executive Director of the Railway Heritage Trust said, "The new material should ensure that the fascias last far longer, retain the original dark green colour without need for regular repainting, and as a result reduce risk to maintenance staff who would otherwise have to work at heights near electric conductors."



BEFORE

Key Benefits

Made from composite material with a Class B fire rating, Dura Composites Dagger Boards mimic the appearance of traditional wooden valance boards but are simple to install and require virtually no maintenance.



Network Rail Compliant



Fast Install Times



Low Maintenance

3D Laser Scanning for Station Canopies and Fascias

Our 3D laser scanning service uses the latest in area scanning technologies to create an exact 3D replica of your project site or premises. This can then be utilised by either Dura Composites' in-house designers to recreate your site specific requirements, or passed to your own internal team.

Accurately surveying the intricate features of buildings and structures has always been a challenge, but 3D laser scanning creates a more detailed representation than could be achieved with previous technology, and much faster too.

A 3D laser scanner can gather millions of data points per second, which in itself is astonishing, but from a health and safety point of view, it's revolutionary.

Often surveys require permission to access rooftops, or involve working at height in some form, for example in surveying a rail canopy at a station, so swapping traditional surveys for 3D laser scanning is a big step towards de-risking a project – both from a personnel

perspective, and when it comes to the building itself. With stations being in continuous use by passengers and staff, the scanning can be conducted without disturbing daily activities – and without the need to work at height. The danger of electrocution from overhead lines, and of causing damage to the physical structure and the dagger boards themselves is also eliminated, which is a huge advantage, especially when it comes to listed buildings and areas that are difficult to access.

Many of the dagger board designs are completely unique and in many cases, removal of the degraded timber boards may irreparably damage and eradicate the design forever. In 1977 there were thought to be over two hundred different

patterns in the southern region of Britain alone (Reynolds 1977), all with their unique charm and historic associations.

The scanning process captures every detail, meaning you get an as-built record to use as a basis for producing exact replicas in modern materials. In some cases whole sections may need to be replicated, and in others, the new material can be added to blend seamlessly with the old.

At Dura Composites, we then use this as an opportunity to replace the old materials with high-performance fire-rated materials which require minimal maintenance and are significantly lighter in weight, putting less stress on the canopy structure itself.



What you get when you work with Dura Composites:

1. Online Tools

Using our online tool you can customise, price and specify your own step-over access systems online from our next generation d² GRP Access Structure range. Dura Composites are experts in the design, fabrication and supply of composite GRP step-over access systems, up and over stairs and step units to help navigate obstacles such as pipework, plant equipment, bund walling or changes in level and to provide safe access.

We now offer a complete range of d² Fabrications (Reg. Design No. 008200554-0001), deploying the latest innovations in GRP technology to deliver

the safest, most cost-effective, user-friendly and aesthetically pleasing GRP access systems on the market. The d² GRP Access Structures have been designed to the stair configuration, height, and obstacle width of your specific project. Simply select your project site parameters from the options below to view available step-over designs with indicative pricing*.

All d² GRP Access Structures are designed in conjunction with relevant standards for commercial and industrial use and provide a safe, low-maintenance, non-conductive and cost-effective



alternative to metal or wooden structures. Visit our website to have a go: www.duracomposites.com/grp-access-structures/d2-grp-access-structure-configurator.

2. Design Support

If you're working in rail infrastructure design or if you're simply looking to improve safety and performance for your rail assets, we can help support your design services across all phases of the project lifecycle. We can provide detailed technical specifications for our award-winning product range to help you make data-driven decisions. We have an extensive library of previous projects which have been successfully



installed in a wide range of station and trackside locations. Our in-house CAD and Structural Engineering team can be utilised both for stand-alone design and as part of larger integrated design scheme. Whatever your scenario, you can be confident that we'll help ensure your project will meet the load performance and specification needed, otherwise we won't supply it!

3. Cutting – Standard & Specialist

We understand that each rail and transport network project is an individual contract with specific design requirements. Dura Composites' specialist cutting team offer a full range of services to ensure that our product meets your exacting requirements so you can install with confidence.

Our 2D, 3D, and 4-axis CAD team are the best people to help you get a first impression of how you can utilise our market-leading composite products. Once the product is designed, our

professional staff can cut it into life, using precision tooling to perform straight lines, cuts, routing – whatever you need.

STANDARD

Drawing on 20+ years' experience Dura's cutting team can cut to a 3mm tolerance.

SPECIALIST

Alternatively, if you require a more specialised cutting service our team can help. We aim to optimise cuts per panel to ensure the best yield and that all panels are used in the most efficient way.



ROUTING

We can router holes suitable for lifting eyes or for other requirements as specified.

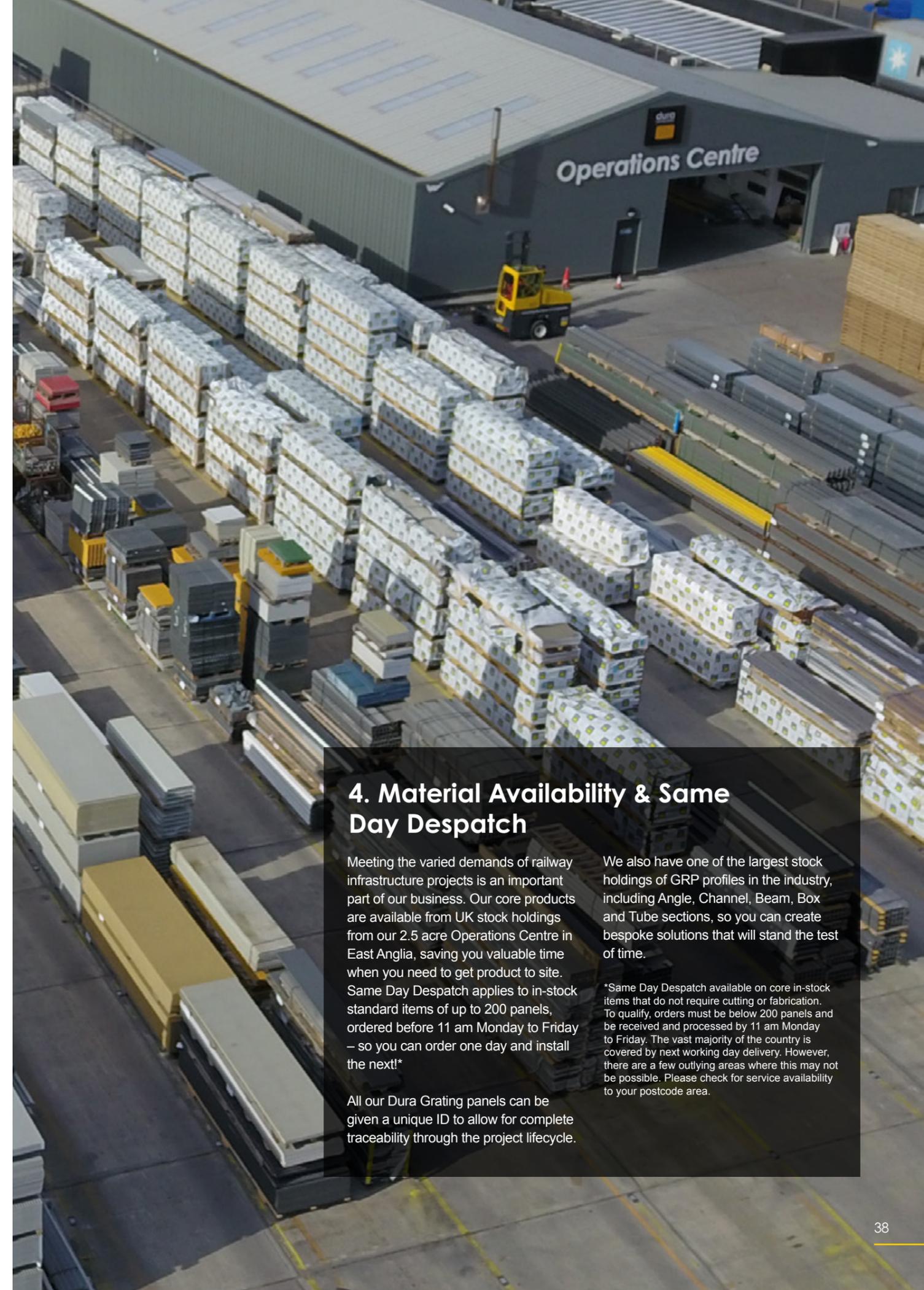
4. Material Availability & Same Day Despatch

Meeting the varied demands of railway infrastructure projects is an important part of our business. Our core products are available from UK stock holdings from our 2.5 acre Operations Centre in East Anglia, saving you valuable time when you need to get product to site. Same Day Despatch applies to in-stock standard items of up to 200 panels, ordered before 11 am Monday to Friday – so you can order one day and install the next!*

All our Dura Grating panels can be given a unique ID to allow for complete traceability through the project lifecycle.

We also have one of the largest stock holdings of GRP profiles in the industry, including Angle, Channel, Beam, Box and Tube sections, so you can create bespoke solutions that will stand the test of time.

*Same Day Despatch available on core in-stock items that do not require cutting or fabrication. To qualify, orders must be below 200 panels and be received and processed by 11 am Monday to Friday. The vast majority of the country is covered by next working day delivery. However, there are a few outlying areas where this may not be possible. Please check for service availability to your postcode area.



5. BIM Objects

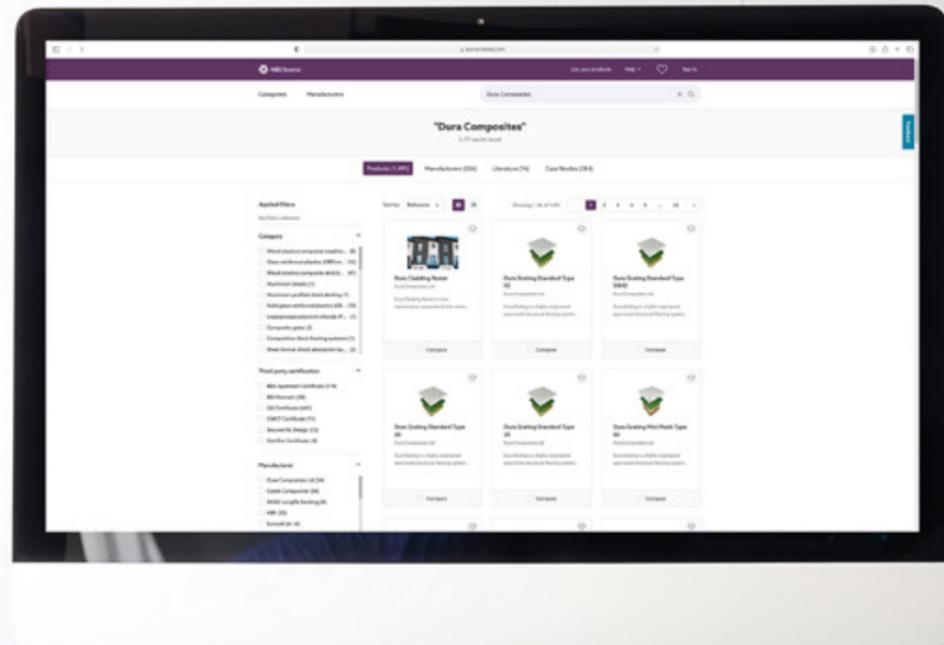
Our Dura Composites BIM objects are hosted on NBS Source where they are available for use by architects, designers, engineer, contractors and specifiers.

Available free, our data-rich Dura Composites BIM Objects allow specifiers to see up-to-date, accurate data about Dura Composites products and to easily incorporate them into their overall design.

Authoring to the trusted NBS standard, each BIM Object details the various surface finishes, profiles, sizes and colour options for each product, and provides specifiers and end clients with detailed information on how the products will perform during their expected lifecycle.

To access the Dura Composites BIM objects visit: <https://source.thenbs.com/search-results/products?search=Dura%20Composites>.

If you require any additional information or support, please contact us to discuss how our CAD team can work with your sales contact to unlock the power of composites for your project. We also offer a range of CPD training materials which are delivered by our experienced team.



6. CPD Training

With budgets under ever increasing scrutiny, it's never been more vital to ensure that the solutions provided to the rail industry are both future proof and have a measurable impact on efficiency.

Dura Composites now offer a series of training sessions for designers and contractors to understand the technical capabilities and install methodology of Dura products in a supportive and engaging environment. We can cater training sessions specifically to the requirements of your project. For more information please speak to a member of the Rail team.



7. Technical Information Manuals

We offer a wide range of accessible technical information regarding our product range to help ensure that your chosen product meets the performance need of your specific rail application.

Our interactive product selector tool allows you to get a GRP grating or profile product recommendation in just

a few steps (see pages 5-6) and is the result of years of extensive research and rigorous live and simulated testing.

We also have a number of technical manuals and material safety data sheets which are readily available from your Dura Composites sales representative.



8. Accreditations

From being accredited by the UK Rail Industry's leading professional and industry bodies to establishing and maintaining close working relationships with carefully chosen partners – Dura Composites constantly dedicates time and effort to ensuring our service to you is current, knowledgeable and effective.

Our range of accreditations are gained through a variety of methods, from comprehensive audit assessment to evaluation of approaches to health and safety, BIM and quality management to ensure we meet the highest possible standards.

In 2020, we were proud to have successfully earned recertification to

ISO 9001:2015, the internationally recognised standard specifying the requirements for quality management systems.

This is a testament to Dura Composites' team members – from sales and marketing to fabrication, operations and installation – who thrive on improving customer value through quality management.



Make Data-Driven Decisions >>

This brand-new online tool helps unlock the world of composite products for a vast range of architects, engineers, project managers and designers. The result of years of extensive research and rigorous live and simulated testing, the online Interactive Product Selector is available now at www.powerofcomposites.com to help those within the rail, civils and asset management industries make fast and accurate decisions about the right product specification for their projects.

How to Unlock the Power of Composites for Your Business

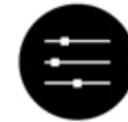
Users can compare products across the Dura Composites range with the click of a button, with easy to interpret graphs collated into a single view. BIM data files which feature product information can also be downloaded from the tool, allowing architects and specifiers to streamline the design, build and maintenance process to save time and money.

Once a range of suitable products have been identified, detailed product information can be accessed immediately such as drawings, dimensions, load tables and graphs unique to these products. The selected span and load criteria can be downloaded into a neat professional document for analysis and approval.



What does the Site Feature?

Say goodbye to lengthy technical datasheets, protracted quotes, and sub-par results. Welcome to the future of composite grating. With this one, seamless tool, you are able to input your precise requirements and receive a bespoke GRP grating product to match, complete with market-leading data feedback so you can see the difference for yourself.



GRP Grating Selection Tool

Create a list of grating products that meet your exacting criteria. Adjust the Load, Deflection and Fire Rating parameters accordingly; export detailed information such as Product Variations, Product Dimensions and Full bar guide.



Create Bespoke Grating Load/Deflection Tables and Graphs

Select product and options to display customised information in downloadable assets to back up your specification. Adjust the load and span range and interval to create your very own dynamic load and deflection table.



Grating Comparison Graphs

Compare the performance of grating panels against one another using a graphical format. Set Load Type between Point Load (PL) and Uniformly Distributed Load (UDL) then select an unlimited amount of products to compare.



Profile Selector

Understand the performance of GRP profiles in comparison to traditional materials, for example using GRP instead of timber, steel or aluminium. Understand the specification and suitability of a product based on your intended application.



Material Properties

The material data reported has been compiled to allow engineers and specifiers to quantify the material properties with those contained within specifications.



Property Comparison

A visualisation of the difference between various properties for traditional materials versus our products. The values quoted are for representation only and are typical within the range of values for the given material.

So what are you waiting for? Unlock the Power of Composites and discover the Dura difference for yourself.



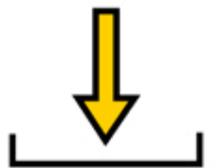
1. Register



2. Insert Specifications



3. Get Product Recommendations



4. Download Technical Data

Visit www.duracomposites.com/powerofcomposites today

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Unlocking the Power of Composites » for the Rail Industry

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