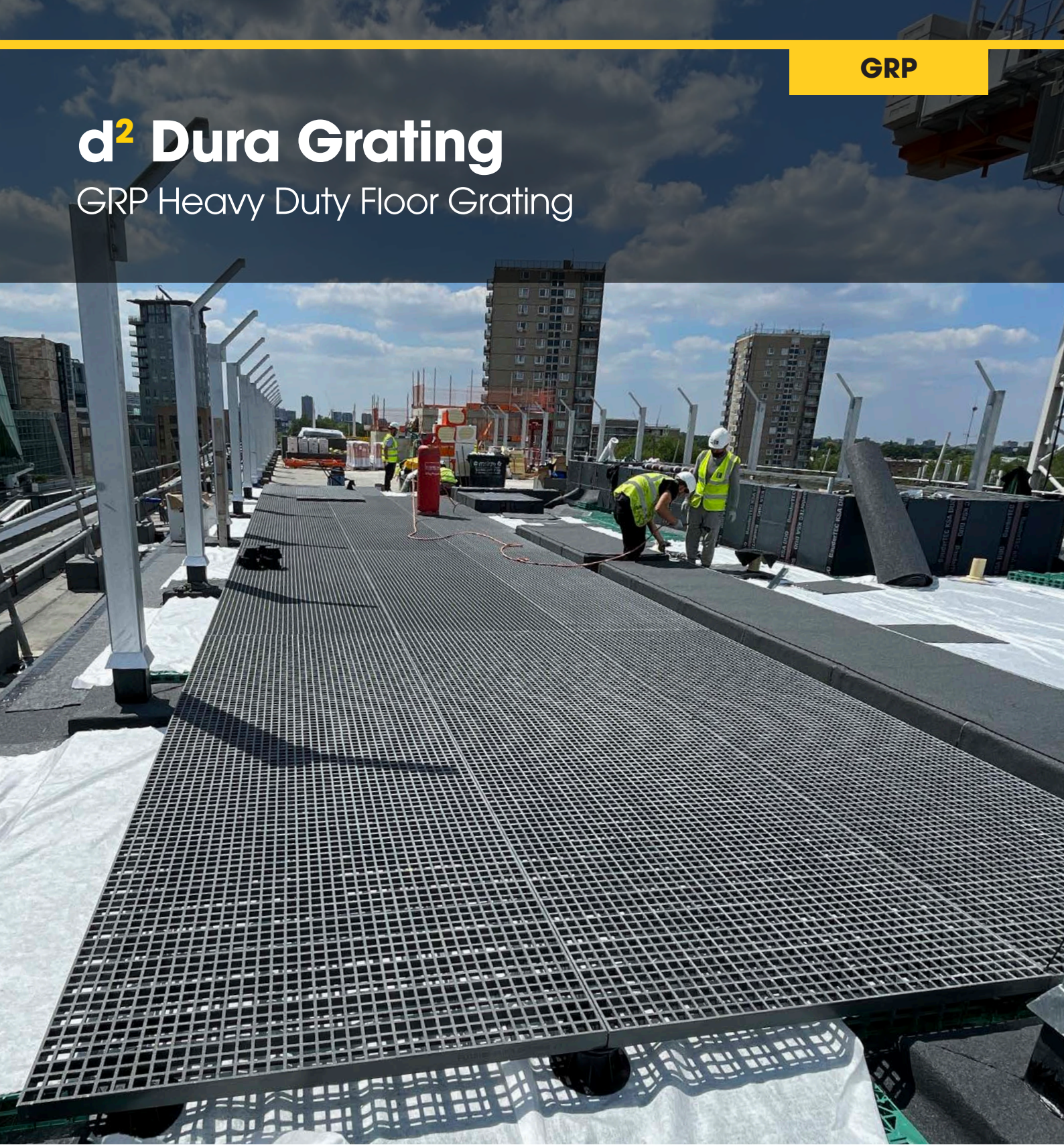
GRP

d² Dura Grating

GRP Heavy Duty Floor Grating



Safer. Stronger. Faster. Proven.

Designed, developed and manufactured by Dura Composites, d² Dura Grating offers outstanding safety, performance and durability.

Unlocking the Power of Composites™

dura™ composites

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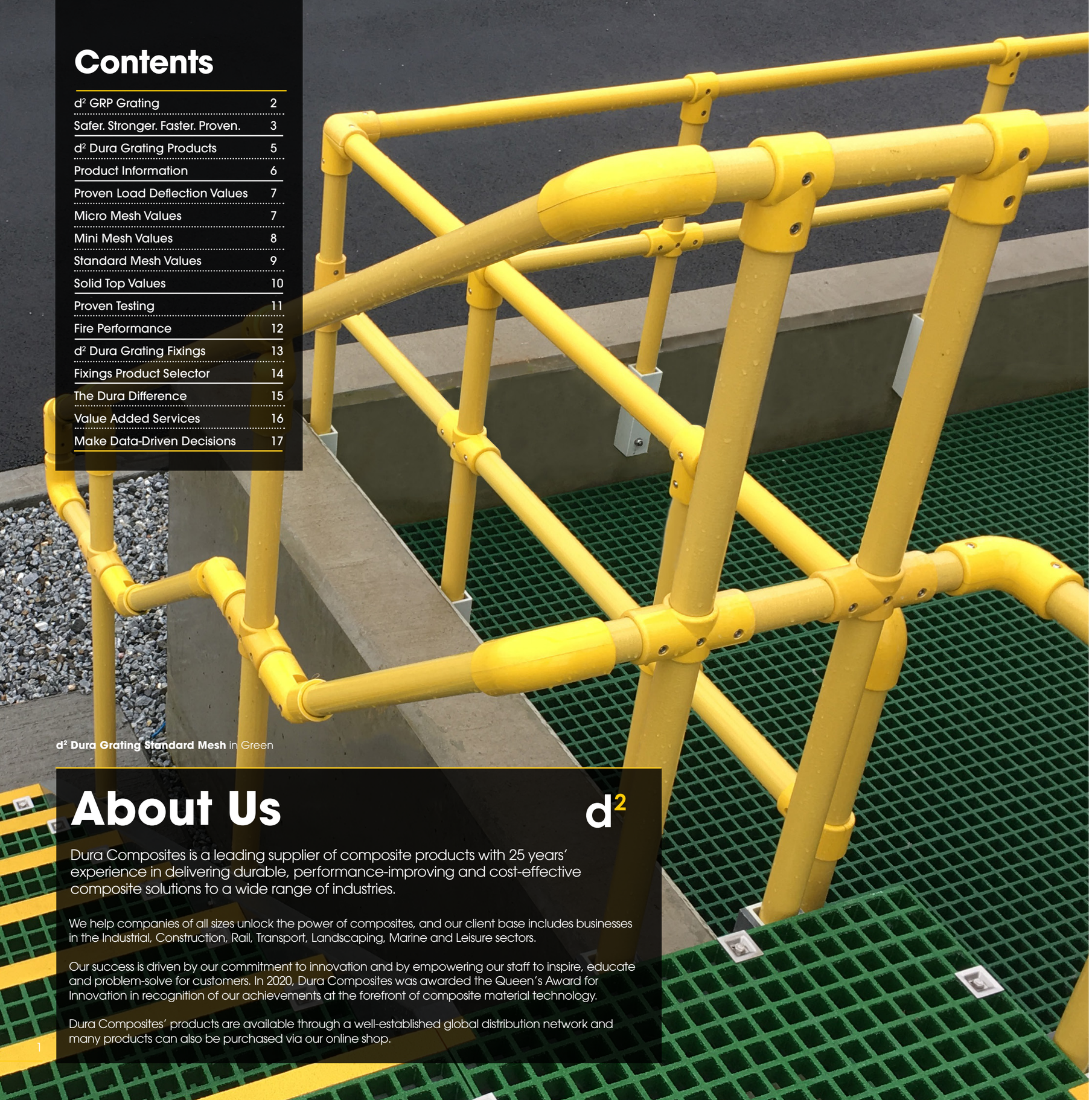


d² Dura Grating Standard Mesh in Green

About Us

d²

Dura Composites is a leading supplier of composite products with 25 years' experience in delivering durable, performance-improving and cost-effective composite solutions to a wide range of industries.

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

Our success is driven by our commitment to innovation and by empowering our staff to inspire, educate and problem-solve for customers. In 2020, Dura Composites was awarded the Queen's Award for Innovation in recognition of our achievements at the forefront of composite material technology.

Dura Composites' products are available through a well-established global distribution network and many products can also be purchased via our online shop.

d² GRP Grating

Not all GRP composites are created equal – through our design, technology and manufacturing innovations we've redefined what customers should expect from their floor and walkway grating.

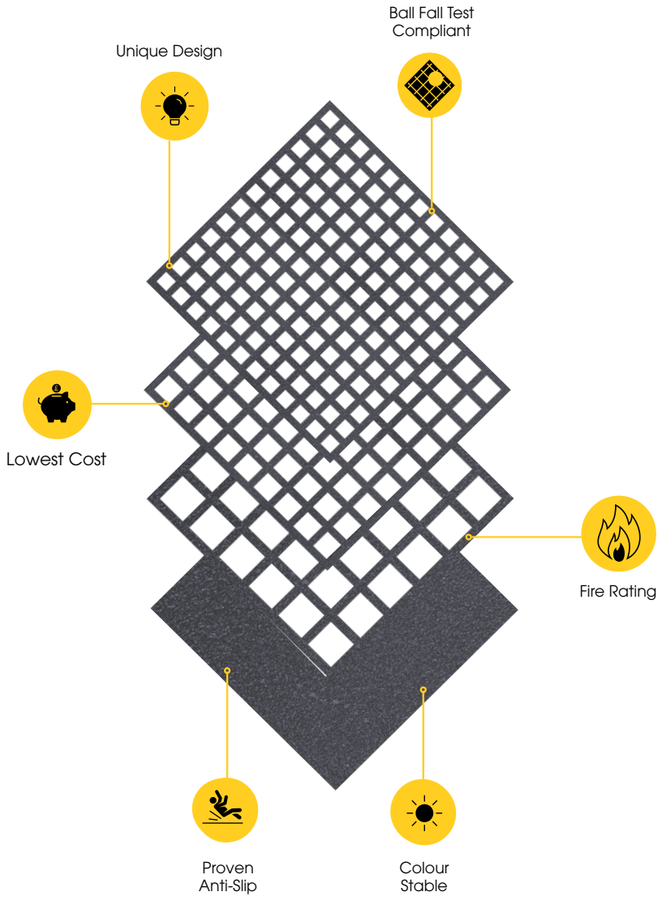
In 2019, the structural engineers and material scientists at Dura Composites completely re-engineered our previous GRP Dura Grating to reduce the weight by up to 30%, delivering the best performance to weight ratio in the industry.

We call it d² Dura Grating, and you won't find it anywhere else.

d² Dura Grating. Safer. Stronger. Faster. Proven.

Our unrivalled product data helps you make faster and better decisions and helps you to plan ahead to future-proof your project.

We have the team, the experience and the in-house support services to deliver certainty that you'll reduce time and costs whilst improving the safety of your project.



Safer. Stronger. Faster. Proven.

Through our unrivalled design, technology and manufacturing innovations Dura Composites has developed a unique range of floor grating that can't be found anywhere else and is ideal for countless heavy duty applications such as walkways, ramps, service risers, trench covers, fencing, screening and for use within access structures.

Here's why we're different:

Safer.

d² Dura Grating products have unique anti-slip surfaces and EN13501 fire ratings which increase accessibility & public safety.

The small mesh hole sizes throughout the range meet the 20mm and 35mm Ball Fall test requirements and prevents objects falling through and causing injury below.

If your project requires a 50mm grating for example, ours is the only 50mm Standard Mesh grating on the market that meets the BS 4592 35mm Ball Fall test.

Our 45mm and 55mm Mini Mesh are also the only products that achieve 20mm ball fall test compliancy whilst catering for wider spans.

Our gritted anti-slip surface is proven to last and maintains up to 95% of its anti-slip performance even after an incredible 1 million footfalls.

Stronger.

d² Dura Grating can be applied in all industries where GRP mesh grating is used today and has an outstanding performance-to-weight ratio.

This means that lighter or smaller products can be used to reduce project scale, and because its up to 30% lighter than other GRP grating, d² Dura Grating puts less stress on the substructure and is safer to transport, install and lift than other products on the market.

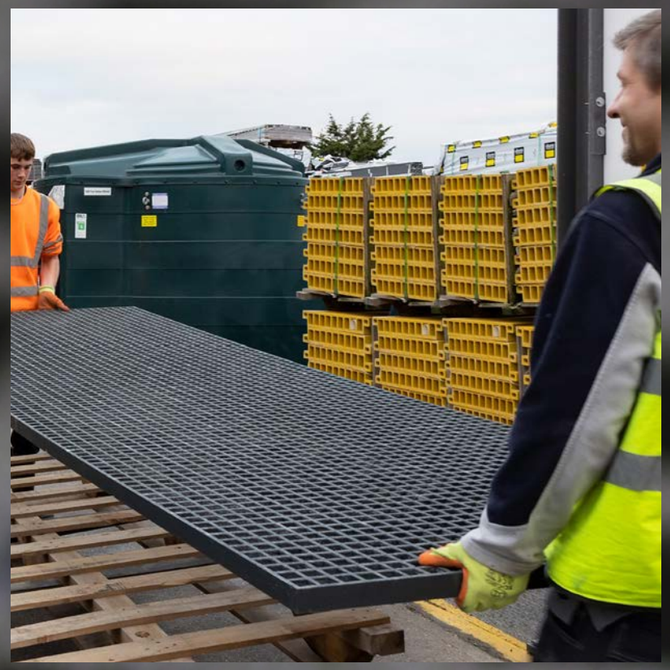
We make our material science knowledge freely available via on online Power of Composites tool to allow clients to conveniently see how d² products perform in place of steel or wood - based on fact.

Faster.

d² Dura Grating products can be deployed rapidly to increase productivity and project efficiency due to their lighter weight but high strength.

Our unique designs and clever packaging reduce on-site logistics requirements such as the need for movement by plant.

Our supply chain strategy and 3-acre Operations Centre allows us to maintain a vast stock inventory so we can deliver fast, with all sizes, thicknesses and colours held as stock for immediate call-off or vesting.



Proven.

d² Dura Grating products are proven to significantly reduce contractors' build and through-life maintenance costs.

Our in-house services include design, live load testing and FEA, so we can prove something will work before we supply it.

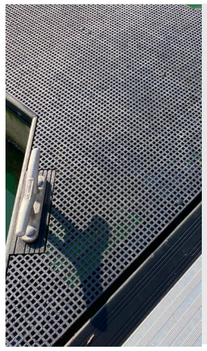
We have all the data and skills you need to specify and build with confidence and can support you with structural design optimisation and failure analysis for specific projects or applications to help reduce time and costs, whilst improving the safety of the project.

d² Dura Grating is fire Rated to Class B* in accordance with BS EN 13501. This limited contribution to fire classification enables use in a greater range of applications and future proofs customers' projects in case of regulatory change.

*excluding 23mm mini and micro mesh which achieve Class C.

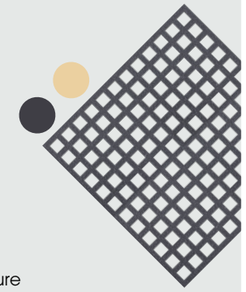
d² Dura Grating Products

Our innovative d² grating products are suited to every industry. Each variant is compliant with British Standards and offers superb efficiencies versus traditional materials.



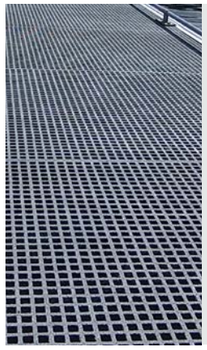
Micro Mesh

d² Dura Grating Micro Mesh features an anti-slip surface with a NEW finer grit. Available in 23mm thickness, in Dark Grey and Sand, the 10.5mm x 10.5mm open mesh prevents virtually all objects from falling through. Other colours available as special order.



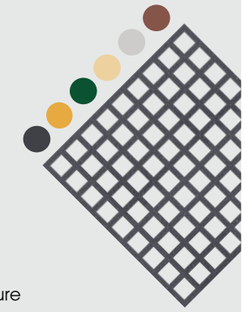
Patent Pending Patent Application No: GB 19 03941.1

Resists Slips · Resists Fade · No Substructure



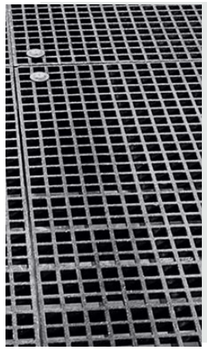
Mini Mesh

d² Dura Grating Mini Mesh has several open hole sizes depending on panel thickness and is our most cost effective open mesh flooring solution. It is available in a 26mm, 38mm or 50mm thickness in Dark Grey, Yellow, Green, Light Grey, Sand and Teak and provides excellent bidirectional mechanical properties.



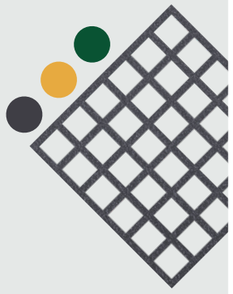
Patent Pending Patent Application No: GB 19 03941.1

Good Ventilation · Resists Fade · No Substructure



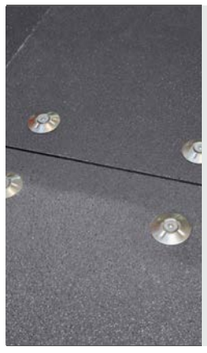
Standard Mesh

d² Dura Grating Standard Mesh has several open hole sizes depending on panel thickness and is our most cost effective open mesh flooring solution. It is available in a 26mm, 38mm or 50mm thickness in Dark Grey, Yellow and Green and provides excellent bidirectional mechanical properties.



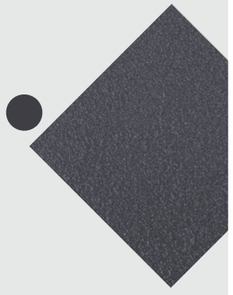
Patent Pending Patent Application No: GB 19 03941.1

Max Ventilation · Lowest Weight · Lowest Cost



Solid Top

d² Dura Grating Solid Top is a great choice for situations where no light transmittance, drainage or visual inspection of the area underneath the grating are required. The gritted, anti-slip properties and up rated surface provides higher opacity values than open mesh gratings whilst the solid surface prevents



Patent Pending Patent Application No: GB 19 04928.7

Max Load Bearing Strength · Max Debris Defence · Suits All Footwear

d² Dura Grating Product Information

d² Dura Grating offers outstanding safety, performance and durability and is more cost-effective than traditional GRP grating in almost every scenario. Use the table below to find the right panel size for your project.

Product Range	Depth (mm)	Panel Sizes (mm)	Open Mesh Size (mm)	Weight (kg/m²)	Colour
Micro Mesh	23	3042 x 1041	10.5 x 10.5	11.5	Dark Grey
		4076 x 1300			
		4076 x 1560			
Mini Mesh	23	3012 x 1029	13 x 13	11.1	Dark Grey Light Grey Yellow Green Sand Teak
		4033 x 1269			
		4033 x 1511			
	35	3030 x 1041	19.5 x 19.5	13.2	
		3667 x 1200			
	45	3030 x 1041		15.3	
		3667 x 1200			
	55	3030 x 1041		19.0	
		3667 x 1200			
Standard Mesh	26	3043 x 993	32 x 32	10.3	Dark Grey Yellow Green
		3699 x 1239			
	38	3054 x 996	31 x 31	13.2	
		3664 x 1224			
	50	3052 x 1057	28 x 28	15.7	
		3682 x 1267			
Solid Top	29	3043 x 993	NONE	16.7	Dark Grey
		3669 x 1239			
	41	3054 x 996		21.1	
		3663 x 1224			
	53	3052 x 1057		16.7	
		3682 x 1267			

Maximum Spans for Common Load Criteria

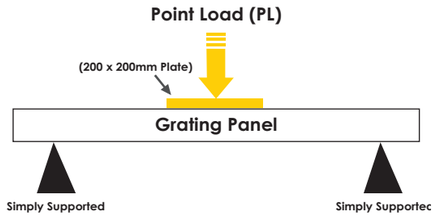
For more specific span data, please visit www.powerofcomposites.com our advanced composite materials data analysis tool – exclusively from Dura Composites. Adjust the load and span range and interval to create your very own dynamic load and deflection table. Providing reference tables for load and deflection is seen as an industry standard.

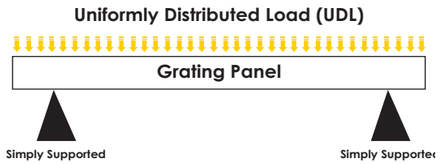
Product Range	Depth (mm)	Max Span 1.5kn Point Load		Max Span 5kn Uniformly Distributed Load	
		@ 0.5% deflection	@ 1% deflection	@ 0.5% deflection	@ 1% deflection
Micro Mesh	23	400	660	800	1080
Mini Mesh	23	340	630	770	1010
	35	870	1590	710	900
	45	1330	2210	880	1170
	55	2280	2500	1110	1470
Standard Mesh	26	500	860	510	690
	38	880	2500	780	1020
	50	1800	2770	970	1270
Solid Top	29	830	1450	710	910
	41	1960	3400	890	1240
	53	2600	Full Panel	1240	1640

Proven Load & Deflection Values

Determining the correct GRP flooring product depends on the load criteria and surface finish requirement selected by the designer.

Dura Composites is the only company that LIVE load tests its unique products to systematically determine the performance levels. Other companies use generic industry tables despite the huge variation in performance from manufacturer to manufacturer for moulded grating.





A Point Load is any static load considered to act over a small or concentrated area when compared to the extent of the surface to which the load is applied. It is sometimes referred to as a Line Load.

A Uniformly Distributed Load or UDL is one where the load is considered evenly distributed across a defined area.

Please find below tables showing the deflection values assuming a 0.5% (L/200) criteria for d² grating products. Green means that the product meets the 0.5% criteria, amber means it does not. For more details on other d² products or to use the Dura Composites Online Product Selector, consult your Dura Composites representative for details.

Micro Mesh Values

d² Dura Grating 23mm Micro Mesh

Table Range	Clear Span										
	300mm	350mm	400mm	450mm	500mm	550mm	600mm	650mm	700mm	750mm	800mm
Point Load (kN) 0.5% / L/200											
0.5	0	0	0.5	1.0	1.4	1.7	1.9	2.2	2.5	2.8	3.3
1.0	0	0	1.2	2.1	2.8	3.3	3.8	4.3	4.9	4.9	6.4
1.5	0	0	1.8	3.2	4.2	4.9	5.6	6.5	7.4	7.4	9.5
2.0	0	0.2	2.5	4.2	5.6	6.5	7.4	8.5	9.7	9.7	12.5
2.5	0	0.3	3.1	5.3	6.9	8.1	9.2	10.6	12.0	12.0	15.5
UDL (kN/m²) at 0.5% / L/200											
5.0	0	0.4	1.3	2.1	3.0	4.0	5.3	6.7	8.5	10.6	13.1

KEY: Deflects less than 0.5% Deflects more than 0.5% - Beyond safety factor

d² Dura Grating Micro Mesh in Dark Grey

Mini Mesh Values

d² Dura Grating 23mm Mini Mesh

Table Range	Clear Span										
	300mm	350mm	400mm	450mm	500mm	550mm	600mm	650mm	700mm	750mm	800mm
Point Load (kN) 0.5% / L/200											
0.5	0.4	0.5	0.7	0.9	1.2	1.5	1.8	2.2	2.6	3.0	3.4
1.0	0.9	1.2	1.6	2.1	2.6	3.2	3.9	4.5	5.3	6.0	6.8
1.5	1.3	1.8	2.4	3.1	3.9	4.8	5.7	6.7	7.8	8.9	10
2.0	1.7	2.4	3.2	4.1	5.1	6.3	7.5	8.9	10.2	11.7	13.1
2.5	2.1	2.9	3.9	5.1	6.4	7.8	9.3	11.0	12.6	14.4	16.2
UDL (kN/m²) at 0.5% / L/200											
5.0	0.3	0.6	1.1	1.8	2.7	3.9	5.4	7.1	9.3	11.8	14.7

d² Dura Grating 35mm Mini Mesh

Table Range	Clear Span										
	500mm	600mm	700mm	800mm	900mm	1000mm	1100mm	1200mm	1300mm	1400mm	1500mm
Point Load (kN) 0.5% / L/200											
0.5	0.7	0.8	0.9	1.1	1.3	1.7	2.1	2.6	3.1	3.77	4.3
1.0	1.0	1.4	1.8	2.4	3.0	3.8	4.6	5.6	6.6	7.8	9.2
1.5	1.4	2.0	2.8	3.7	4.6	5.8	7.0	8.4	10.0	11.8	13.9
2.0	1.8	2.7	3.7	4.9	6.2	7.7	9.3	11.2	13.3	15.7	18.5
2.5	2.3	3.4	4.7	6.1	7.7	9.6	11.6	13.9	16.6	19.6	23.1
UDL (kN/m²) at 0.5% / L/200											
5.0	1.2	1.9	3.3	5.6	9.0	13.4	19.0	26.2	35.1	46.0	59.1

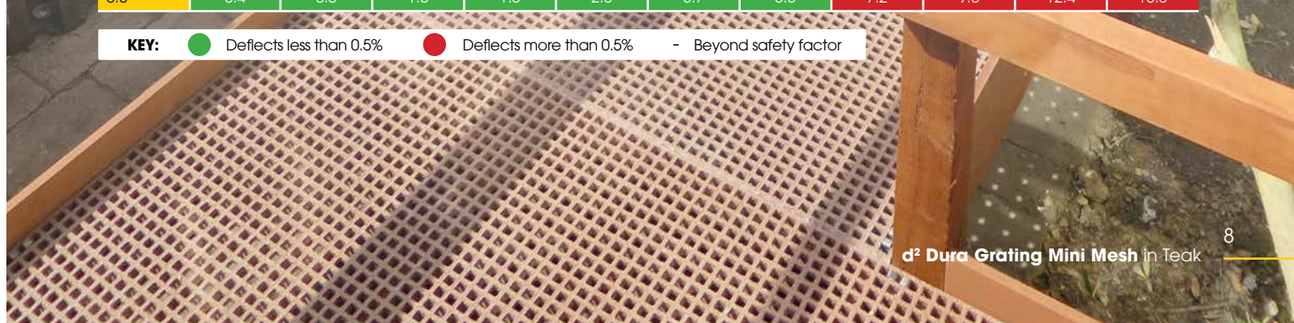
d² Dura Grating 45mm Mini Mesh

Table Range	Clear Span										
	500mm	600mm	700mm	800mm	900mm	1000mm	1100mm	1200mm	1300mm	1400mm	1500mm
Point Load (kN) 0.5% / L/200											
0.5	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.8	2.2	2.6	3.2
1.0	0.8	1.1	1.4	1.7	2.0	2.4	2.9	3.5	4.3	5.1	6.1
1.5	1.1	1.6	2.1	2.5	3.0	3.6	4.3	5.2	6.3	7.5	8.8
2.0	1.4	2.1	2.7	3.3	4.0	4.8	5.8	6.9	8.2	9.7	11.3
2.5	1.7	2.5	3.3	4.2	5.1	6.1	7.2	8.6	10.1	11.8	13.7
UDL (kN/m²) at 0.5% / L/200											
5.0	0.6	1.1	2.0	3.1	4.7	6.7	9.4	12.8	16.9	21.8	27.3

d² Dura Grating 55mm Mini Mesh

Table Range	Clear Span										
	500mm	600mm	700mm	800mm	900mm	1000mm	1100mm	1200mm	1300mm	1400mm	1500mm
Point Load (kN) 0.5% / L/200											
0.5	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.8	0.9	1.1	1.2
1.0	0.4	0.5	0.6	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.6
1.5	0.5	0.7	0.9	1.1	1.4	1.7	2.1	2.4	2.9	3.4	3.9
2.0	0.6	0.9	1.2	1.5	1.9	2.3	2.8	3.3	3.8	4.5	5.3
2.5	0.8	1.1	1.5	1.9	2.4	2.9	3.4	4.1	4.8	5.6	6.6
UDL (kN/m²) at 0.5% / L/200											
5.0	0.4	0.6	1.0	1.6	2.5	3.7	5.3	7.2	9.6	12.4	15.8

KEY: Deflects less than 0.5% Deflects more than 0.5% - Beyond safety factor



d² Dura Grating Mini Mesh in Teak

Standard Mesh Values

d² Dura Grating 26mm Standard Mesh

Table Range	Clear Span										
	500mm	600mm	700mm	800mm	900mm	1000mm	1100mm	1200mm	1300mm	1400mm	1500mm
Point Load (kN) 0.5% / L/200											
0.5	0.5	0.9	1.4	2.0	2.8	3.6	4.5	5.4	6.6	7.9	9.6
1.0	1.5	2.4	3.5	4.8	6.3	8.0	9.8	11.8	14.2	16.9	20.0
1.5	2.4	3.8	5.4	7.3	9.5	11.9	14.7	17.8	21.4	25.4	30.0
2.0	3.2	5.0	7.2	9.7	12.6	15.8	19.4	23.6	28.3	33.7	39.9
2.5	4.0	6.3	9.0	12.1	15.7	19.7	24.2	29.3	35.2	41.9	49.6
UDL (kN/m²) at 0.5% / L/200											
5.0	1.0	3.6	7.7	13.2	21.0	32.1	47.0	66.6	91.1	122.8	160.2

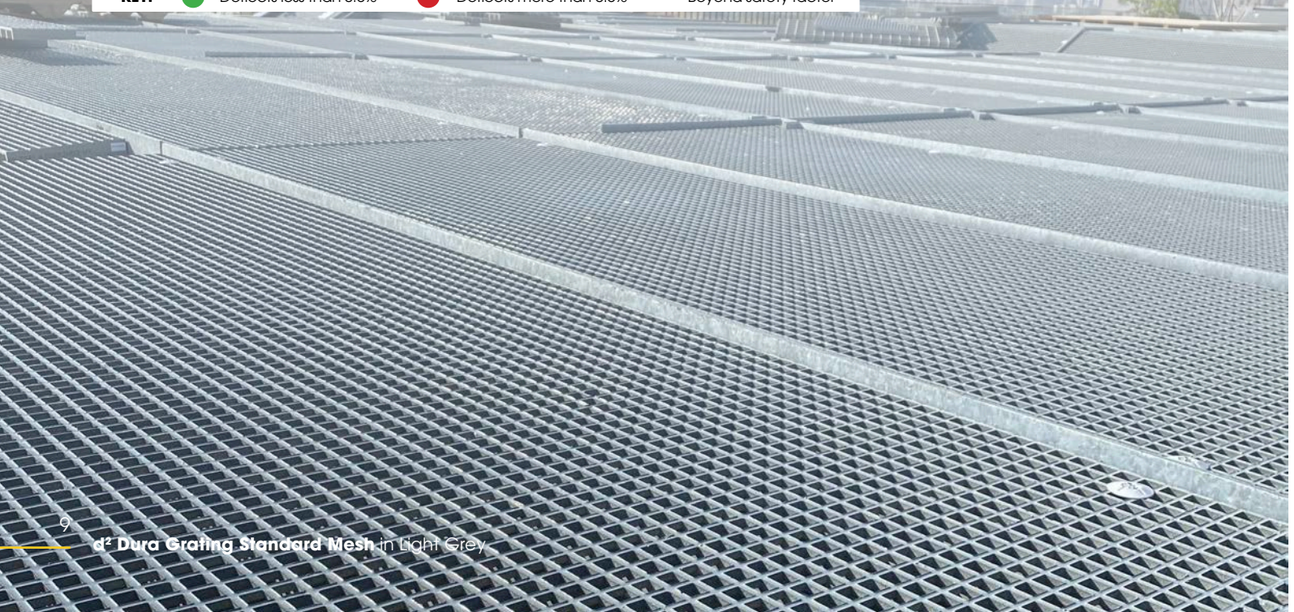
d² Dura Grating 38mm Standard Mesh

Table Range	Clear Span										
	500mm	600mm	700mm	800mm	900mm	1000mm	1100mm	1200mm	1300mm	1400mm	1500mm
Point Load (kN) 0.5% / L/200											
0.5	0.8	0.9	1.1	1.4	1.7	2.1	2.5	3.0	3.4	3.7	4.0
1.0	1.4	1.7	2.0	2.6	3.2	4.0	4.8	5.6	6.4	7.1	7.8
1.5	2.0	2.4	2.9	2.9	4.6	5.6	6.8	8.0	9.2	10.3	11.4
2.0	2.5	3.0	3.8	3.8	5.9	7.2	8.7	10.2	11.8	13.4	14.9
2.5	2.9	3.6	4.6	4.6	7.2	8.8	10.6	12.4	14.4	16.4	18.3
UDL (kN/m²) at 0.5% / L/200											
5.0	0.9	1.5	2.6	4.3	6.5	9.3	13.0	18.5	22.6	28.4	34.8

d² Dura Grating 50mm Standard Mesh

Table Range	Clear Span										
	500mm	600mm	700mm	800mm	900mm	1000mm	1100mm	1200mm	1300mm	1400mm	1500mm
Point Load (kN) 0.5% / L/200											
0.5	0.3	0.4	0.4	0.5	0.6	0.8	1.0	1.1	1.4	1.6	1.8
1.0	0.5	0.7	0.9	1.1	1.4	1.7	2.0	2.4	2.9	3.3	3.9
1.5	0.7	1.0	1.3	1.7	2.1	2.6	3.1	3.7	4.3	5.0	5.9
2.0	0.9	1.3	1.8	2.3	2.8	3.4	4.1	4.9	5.7	6.7	7.8
2.5	1.2	1.6	2.2	2.8	3.5	4.3	5.1	6.1	7.2	8.4	9.8
UDL (kN/m²) at 0.5% / L/200											
5.0	0.5	0.8	1.4	2.3	3.6	5.4	7.5	10.3	13.6	17.7	22.5

KEY: Deflects less than 0.5% Deflects more than 0.5% - Beyond safety factor



d² Dura Grating Standard Mesh in Light Grey

Solid Top Values

d² Dura Grating 29mm Solid Top

Table Range	Clear Span										
	500mm	600mm	700mm	800mm	900mm	1000mm	1100mm	1200mm	1300mm	1400mm	1500mm
Point Load (kN) 0.5% / L/200											
0.5	0.8	0.7	0.9	1.2	1.6	2.0	2.6	3.1	3.7	4.5	5.4
1.0	1.3	1.5	1.9	2.5	3.3	4.2	5.2	6.3	7.6	9.0	10.6
1.5	1.9	2.3	2.9	3.8	4.9	6.3	7.8	9.5	11.3	13.4	15.7
2.0	2.4	3.0	3.8	5.0	6.5	8.3	10.4	12.6	15.0	17.7	20.7
2.5	3.0	3.7	4.8	6.2	8.1	10.4	12.9	15.6	18.6	22.0	25.8
UDL (kN/m²) at 0.5% / L/200											
5.0	1.1	1.8	3.2	5.5	8.6	12.7	17.8	24.1	31.7	40.5	50.6

d² Dura Grating 41mm Solid Top

Table Range	Clear Span										
	500mm	600mm	700mm	800mm	900mm	1000mm	1100mm	1200mm	1300mm	1400mm	1500mm
Point Load (kN) 0.5% / L/200											
0.5	0.4	0.5	0.6	0.7	0.8	0.9	1.1	1.2	1.4	1.6	1.8
1.0	0.9	1.1	1.3	1.5	1.8	2.1	2.4	2.7	3.0	3.4	3.9
1.5	1.4	1.7	2.0	2.4	2.8	3.2	3.6	4.1	4.6	5.2	5.9
2.0	1.8	2.3	2.7	3.2	3.7	4.2	4.8	5.5	6.2	7.0	7.9
2.5	2.3	2.8	3.4	4.0	4.6	5.3	6.0	6.8	7.7	8.7	9.8
UDL (kN/m²) at 0.5% / L/200											
5.0	0.5	1.1	2.0	3.1	4.6	6.4	8.7	11.3	14.4	17.9	22.1

d² Dura Grating 53mm Solid Top

Table Range	Clear Span										
	500mm	600mm	700mm	800mm	900mm	1000mm	1100mm	1200mm	1300mm	1400mm	1500mm
Point Load (kN) 0.5% / L/200											
0.5	0.5	0.4	0.4	0.3	0.3	0.4	0.4	0.5	0.6	0.8	0.9
1.0	0.6	0.6	0.6	0.7	0.8	0.9	1.1	1.3	1.6	1.9	2.2
1.5	0.7	0.7	0.9	1.0	1.2	1.5	1.8	2.1	2.5	2.9	3.4
2.0	0.8	0.9	1.1	11.4	1.6	2.0	2.4	2.8	3.3	3.9	4.5
2.5	0.9	1.1	1.4	1.7	2.1	2.5	3.0	3.5	4.1	4.8	5.6
UDL (kN/m²) at 0.5% / L/200											
5.0	0.7	0.6	0.7	1.1	1.8	2.7	3.9	5.4	7.3	9.4	12.0

KEY: Deflects less than 0.5% Deflects more than 0.5% - Beyond safety factor

d² Dura Grating Solid Top in Dark Grey

Proven Testing Ensures Compliance

Whatever your scenario, you can be confident that we'll help ensure your project will meet the load performance and specification you need, otherwise we won't supply it.

As well as providing a wealth of test data via our online product selector, we are also the only company who have the ability to test our products in line with bespoke project scenario requirements, using our in-house test rig.

British Standard Guide

The list below highlights the suitability of d² Dura Grating for some of the main standards in common usage for GRP flooring. Ours is the only product range that is BS 4592 20mm Ball Fall Test and BS 7676 1m footfall anti-slip compliant.

Standard	Application	Duty	Point Load	Area (mm)	UDL	Deflection	Opening Size	Most Suitable d² Dura Grating Product	38	41	45	Areas
BS4562-0:2006 +A1:2012	Flooring, stair treads and handrails for industrial use	General Heavy	1.5kN	200 x 200	5kN/m² 7.5kN/m²	L/200 or 10mm	20mm for places where people are working otherwise max 35mm	38mm Standard Mesh or 45mm Mini Mesh (in case of proximity to working personnel)	✘	✔	✔	Working
BS EN 14122-2	Safety of machinery - permanent means of access to machinery	-			2kN/m²	L/200			✘	✘	✘	Non-Working

BS 4592 'Flooring, Treads & Handrails for Industrial use' states that any opening should prevent the passage of a 35mm diameter sphere except where the grating is above a place where people are working as opposed to occasionally passing, then the openings should prevent a 20mm diameter sphere from passing through.

BS EN ISO 14122 "Safety of machinery" - "Permanent means of access to machinery" states that openings should prevent a 35mm sphere for occasional passage underneath and a 20mm diameter sphere for spaces that are more regularly worked.

Norsok Working Environment Standard

d² Dura Grating also meets the specific requirements of the Norsok Working Environment Standard developed for the Norwegian Offshore Sector. This standard requires that grating used for Floors, Deck, Surfaces & Platforms shall not allow a ball of more than 20mm diameter to fall through.

The 20mm grating open hole limit applies wherever there are persons working beneath the grating. If there is no-one working below, then the maximum opening can be 35mm in diameter.

Impressive Anti-slip Results

The ONLY GRP grating tested to BS 7976 1m Footfall Test with score of minimum 62 in Wet.

Dura Grating's anti-slip surface features a high specification composition which achieves ultra low slip potential in both wet and dry conditions.

The slip potential of the surface is proven to reduce by a mere 5% after 1 million footfalls (in accordance with BS 7976-2:2002+A1:2013) whilst still achieving an impressive score of 62 in the wet against the low slip potential threshold of just 36.

For help and support with technical information please call +44 (0)1255 423601.

Please Note: d² Dura Grating uses Orthophthalic Polyester Resin as standard - a general purpose economic resin with good corrosion and chemical resistance that is suited to less harsh environments. Other resins are available on request but may be subject to additional lead times. Please consult our chemical resistance data to ensure you choose the most appropriate product for your application.

All colour swatches and textures shown in this document are intended as a representation only and should not be considered as an exact colour match. We would always recommend ordering a colour sample so you can assess colour suitability before placing your order. Dura Composites' manufacturing process results in a high level of colour consistency although some variation in colour may be apparent across products from different production batches.

Industry-Leading Fire Performance

The fire safety of construction sites and buildings depends heavily on the types of materials used. Dura Composites' d² Dura Grating was the first in the industry to be produced as Class B as standard (in accordance with BS EN 13501-1).

European Standard EN 13501-1 provides the reaction to fire classification procedure for all products and building elements. According to this Standard, reaction to fire is the response of a product in contributing by its own decomposition to a fire to which it is exposed, under specified conditions (and is not to be confused with the fire resistance). The Euroclass system focuses on the combustibility of materials, not only the spread of flames.

The process for classification under this standard involves a combination of up to five rigorous tests designed to assess the product on a range of characteristics, including combustibility, heat levels, flame spread and smoke release. Once tested, the product receives an official classification of its fire rating, known as a Euroclass rating. From best performing to worst performing, the Euroclass system is: A1, A2, B, C, D, E and F. It also provides additional classification (typically associated with reaction to fire classes D – B) for smoke production (from s1 (little or no smoke) to s3 (substantial smoke)) and flaming droplets/particles (from d0 (none) to d2 (quite a lot)).

Understanding European Classification (BS EN 13501)

The fire classification of d² Dura Grating is B fl-s1means that the product contributes to a fire to a very limited extent and has been tested for use as a flooring application.

When considering the fire performance of any material for your project, please ensure that you confirm with your chosen manufacturer (through the supply of test certificates), what tests have been undertaken, and what results were achieved.

BS EN 13501-1:2018 was published on 14th January 2019. It provides the reaction to fire classification procedure for all construction products, including products incorporated within building elements.

The process for classification under this standard involves a combination of up to five rigorous tests designed to assess the product on a range of characteristics, including combustibility, heat levels, flame spread and smoke release. Once tested, the product receives an official classification of its fire rating, known as a Euroclass rating.

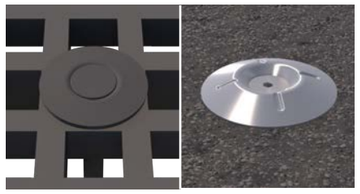
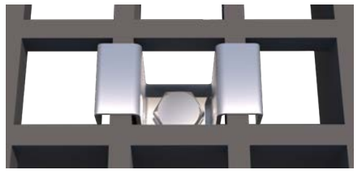
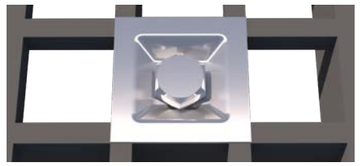
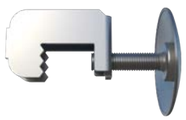
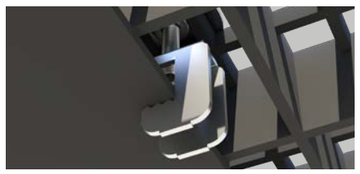
d² Dura Grating

Bfl-s1

From best performing to worst performing, the Euroclass system is: A1, A2, B, C, D, E and F. It also provides additional classification (typically associated with reaction to fire classes D – B) for smoke production (from s1 (little or no smoke) to s3 (substantial smoke)) and flaming droplets/particles (from d0 (none) to d2 (quite a lot)).

d² Dura Grating Fixings

A wide range of stainless steel fixing solutions are available to cater for the huge number of applications that our d² Dura Grating is suited to. These are as follows:

Fixing	Fixing Usage Scenario	Notes
Dome Washers Micro, Small, Large, Extra Large 		• Each fixing uses countersunk screws with exception of extra large washer which uses hex head screws. • Fits directly to substrate. • Design minimises trip hazards. • Cost effective.
M Clip 		• Fits directly to substrate. • Recessed design sits just 1.5mm proud on bar. • M6 bolt Socket Cap Head compatible.
J Clamp Straight, Offset 		• Friction fixing clamp. • Used where fitting direct to substrate with Bolt/ Screw is not possible. • Does not require tightening from underneath. • M8 Bolt Thread compatible. M8 Square Nuts are essential. • Multiple versions are available depending on your project and grating. *Please speak to a Dura Composites Representative.
Square Recessed Clip Small, Large 		• Direct fix to substrate. • Heavy Duty fixing clip. • Compatible with various fixing systems. • Recessed design sits just 1.5mm proud.
Uni-Strut Clamp 		• Mid-span panel to panel corrector. • Ideal for panel joins. • Friction fixing clamp. • Used to reduce differential deflection. • M8 Bolt Thread compatible. • M8 Easyfix style Nut essential.
Channel Clamp 		• Friction fixing clamp. • Structural panel join. • Used where direct substrate fitting with Bolt Screw is not permitted. • M8 Bolt Thread compatible. • M8 Square Nut essential.
Jaw Clamp 		• Friction fixing clamp. • Used where direct substrate fitting with Bolt/ Screw is not permitted. • J Clamps can be used in conjunction with either Large Dome Washers or Square Recess Clips.

Fixings Product Selector

The fixings product selector tables below allow you to easily see the most suitable fixings for your chosen GRP grating product. If you need further advice or support, please contact your Dura Composites representative on 01255 423601.

Fixing Product Selector

Dome Washers

	Micro Mesh	Mini Mesh				Standard Mesh			Solid Top		
Size	23	23	35	45	55	26	38	50	29	41	53
Micro	✔	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘
S	✘	✔	✘	✘	✘	✘	✘	✘	✘	✘	✘
L	✘	✘	✔	✔	✔	✔	✔	✔	✔	✔	✔
XL	✘	✘	✔	✔	✔	✔	✔	✔	✔	✔	✔

M Clip

	Micro Mesh	Mini Mesh				Standard Mesh			Solid Top		
Size	23	23	35	45	55	26	38	50	29	41	53
	✘	✔	✘	✘	✘	✔	✔	✘	✘	✘	✘

J Clamp

	Micro Mesh	Mini Mesh				Standard Mesh			Solid Top		
Size	23	23	35	45	55	26	38	50	29	41	53
Straight	✔*	✘	✔	✔	✔	✘	✘	✔	✘	✘	✘
Offset	✔*	✔	✘	✘	✘	✔	✔	✘	✘	✘	✘

Square Recessed Clip

	Micro Mesh	Mini Mesh				Standard Mesh			Solid Top		
Size	23	23	35	45	55	26	38	50	29	41	53
S	✘	✘	✘	✘	✘	✘	✘	✔	✘	✘	✘
L	✘	✘	✘	✘	✘	✔	✔	✘	✘	✘	✘

Uni-Strut Clamp

	Micro Mesh	Mini Mesh				Standard Mesh			Solid Top		
Size	23	23	35	45	55	26	38	50	29	41	53
	✘	✘	✔	✔	✔	✔	✔	✔	✔	✔	✔

Channel Clamp

	Micro Mesh	Mini Mesh				Standard Mesh			Solid Top		
Size	23	23	35	45	55	26	38	50	29	41	53
	✔	✔	✘	✘	✘	✘	✘	✘	✘	✘	✘

Channel Clamp

	Micro Mesh	Mini Mesh				Standard Mesh			Solid Top		
Size	23	23	35	45	55	26	38	50	29	41	53
	✘	✘	✘	✘	✘	✔	✔	✘	✘	✘	✘

Unlock the Power of Composites

Dura Composites is one of the world's leading suppliers of composite materials.

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

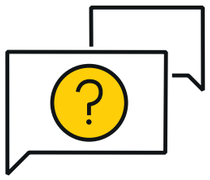
- We believe that decisions on which products to use should be based on facts, not guesses or theories.
- Whatever your scenario, you can be confident that we'll help ensure your project will meet the load performance and specification needed, otherwise we won't supply it!

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:



1. Enquiry

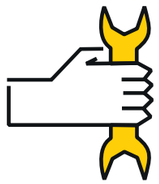
2. Personalised Advice

3. Verify Required Performance Criteria

4. Confirmation of Order

5. Specialised Cutting/Fabrication

6. Delivery to Site



7. Installation

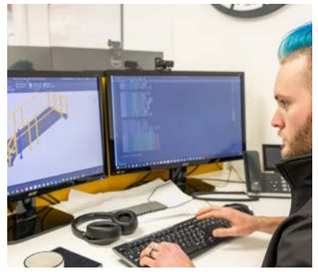
8. Solution Review

Value Added Services

Structural Design

We can help support your design services across all phases of the project lifecycle by providing detailed technical specifications. Our in-house CAD and Structural Engineering team can be utilised both for stand-alone design and as part of larger integrated design scheme using our Computer Aided Design (CAD), Computer Aided Engineering (CAE), Site Surveys and 3D Laser Scanning services. If you need structural efficiency gains in your designs we can make it happen using verification and analysis tools such a Finite Element Analysis (FEA).

Our in-house structural engineer can support you with design optimisation and failure analysis to analyse the strength of complex structures and systems, determine individual component behaviour, and accurately predict how sections will react under structural and thermal loads.



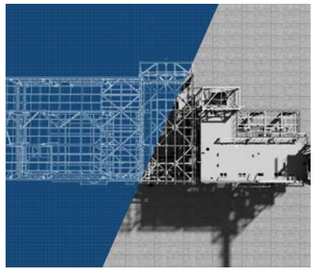
Cutting Services: Standard & Specialist

Our 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 products. Once the product is designed, our professional staff can cut it into life, using precision tooling to perform straight lines, complex cuts and routing.

BIM Objects: Free for Architects, Designers & Specifiers

Dura Composites is committed to providing architects, engineers and contractors with the information that they need to create data-rich digital buildings, leverage Building Information Modeling (BIM).

Available free from the National Building Specification (NBS) National BIM Library, Dura Composites BIM Objects allow specifiers to see up-to-date, accurate data and to easily incorporate them into their overall design. Authored 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.



Material Availability & Next Day Delivery

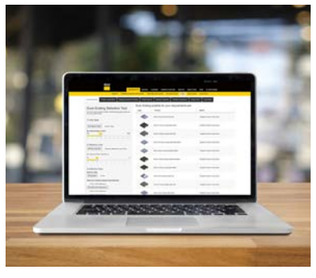
Dura Composites' d^2 Dura Grating series is available from stock, saving you valuable time when you need to get your GRP grating panels to site. We offer Next Day Delivery on in-stock standard items of up to 200 panels, ordered before 11 am Monday to Friday – so you can order one day and install the next!* All our Dura Grating panels can be given a unique ID to allow for complete traceability through the project lifecycle.

*Next Day Delivery 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. Check for service availability to your postcode area.

Specialist Software Tools

Dura Composites utilises specialist software to plan and optimise truck, container, pallet and carton loading.

This helps to reduce shipping and transport costs through an intelligent cargo loading and optimal space utilisation algorithm.



Make Data-Driven Decisions

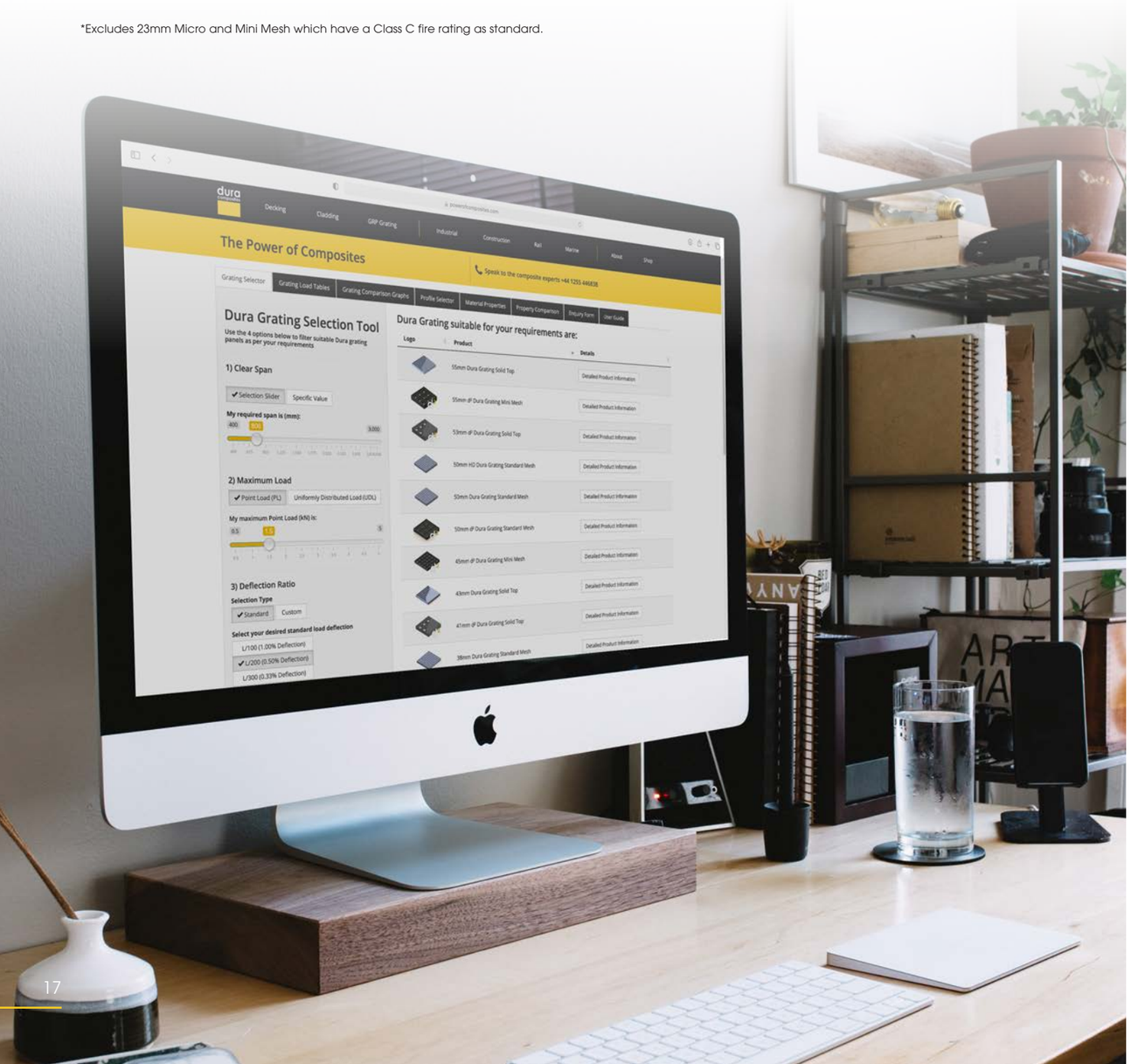
Dura Composites now offers an advanced composite materials data analysis tool – to help you get the most from your next GRP project. In a few clicks, you'll be able to explore our range of tools and technical information, helping you specify composite GRP Grating and GRP Profile products with ease – based on your application's specific technical requirements.

What does the Power of Composites mean for your business?

At Dura Composites, we believe that composite materials can revolutionise every industry – and we want our customers to be part of that journey. We want to help you unlock the power of composites and discover a new way of doing business; a way that leaves the traditional ways behind, and opens the door to the 21st Century way of building.

Our complete range of highly-engineered GRP floor grating takes structural flooring to the next level. With an unbeatable anti-slip surface – tested to 1 million footfalls – a leading Class B fire rating*, and a better strength-to-weight ratio than any other composite product on the market, we have created a grating solution that delivers efficiency in every conceivable way. And now, with our bespoke Power of Composites tool, you can find a solution that suits your unique requirements.

*Excludes 23mm Micro and Mini Mesh which have a Class C fire rating as standard.



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.

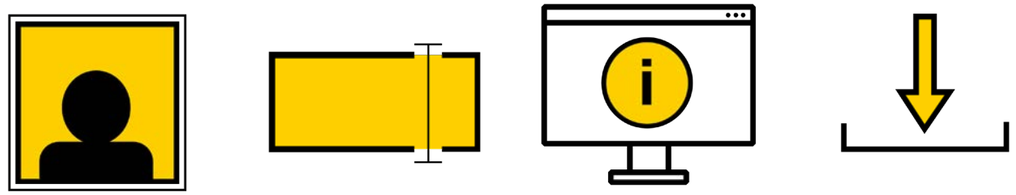
Material Properties

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

THE QUEEN'S AWARDS FOR ENTERPRISE: INNOVATION 2020

2022 RoSPA Gold Award

nqa. ISO 9001 ISO 14001 INTEGRATED MANAGEMENT

UKAS MANAGEMENT SYSTEMS 0015

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July 2022

dura™ composites

Unlocking the Power of Composites™

Due to our policy of continual improvement we reserve the right to change specifications at all times without prior notice.
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