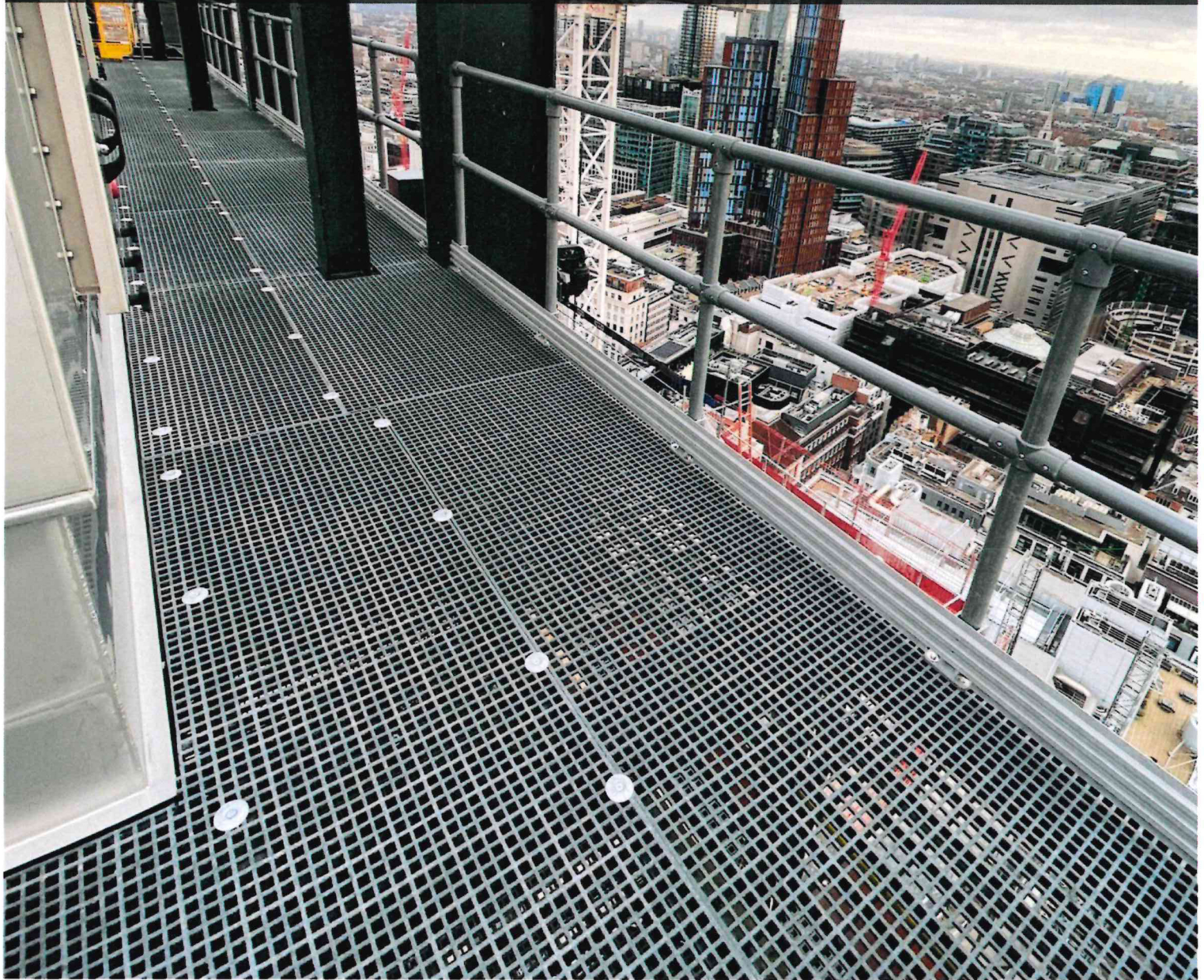


GRP

d² Dura Grating

GRP Heavy Duty Floor Grating



Safer. Stronger. Faster. Proven

Designed, developed and manufactured by Dura Composites, unique d2 Dura Grating offers a 33% weight saving, Class B fire rating and ball fall test compliance.

Unlocking the power of Composites >>



Contents

d ² GRP Grating	2
Safer. Stronger. Faster. Proven.	3
d ² Dura Grating Products	5
Product Information	6
Max Spans	7
Proven Load Deflection Values	10
Micro Mesh Values	11
Mimi Mesh Values	11
Standard Mesh Values	13
Solid Top Values	14
Rectangular Mesh Values	15
Proven Testing	17
d ² Dura Grating Fixings	19
Fixings Product Selector	20
The Dura Difference	22
Value Added Services	24
Make Data-Driven Decisions	25

d² Dura Grating Standard Mesh in Green

About Us

Dura Composites is a leading supplier of composite products with over 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.

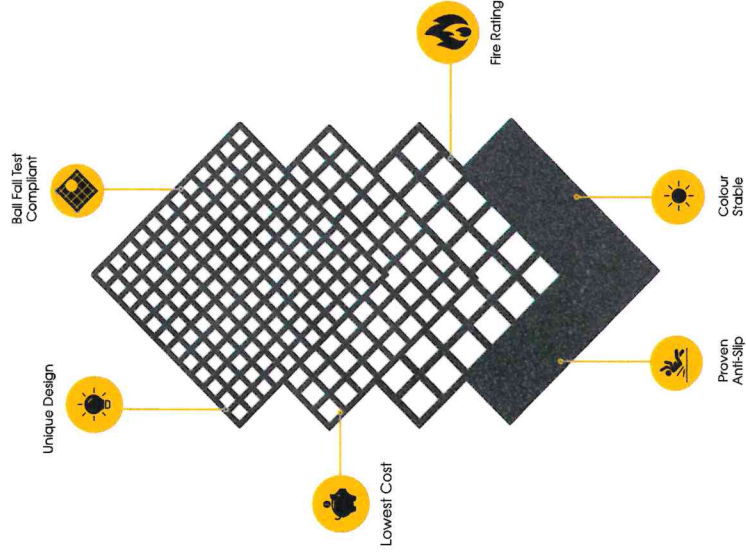
In 2019, the structural engineers and material scientists at Dura Composites completely re-engineered our previous GRP Dura Grating to reduce the weight by up to 33%, delivering the best performance to weight ratio in the industry and reducing embodied carbon by up to 33%.

We call it d² Dura Grating. It's unique to Dura Composites 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.



d²

**Safer.
Stronger.
Faster.
Proven.**

Part of the exclusive d² range, d² Dura Grating is the result of clever design innovation to create products that perform exceptionally well in terms of their strength to weight ratio, offering the option of a two-person lift in the majority of cases, and sustainable material efficiency - without being over-engineered for their intended purpose.

d² Dura Grating achieves an industry-leading Class B fire rating* in accordance with the BS EN 13501-1 standard, making it suitable for a range of walkway and screening project installations where fire safety is an important consideration.

We offer Standard Mesh, Mini Mesh and Micro Mesh variants to suit specific project needs. The latest addition to the range is our Rectangular Mesh product, which meets the needs of narrow trench spans with maximum efficiency.

*including 23mm Mini and Micro Mesh

Here's why we're different:

Safer.

d² Dura Grating products have unique properties to boost safety including:

- Fire rated to Class B* in accordance with BS EN 13501.
- Small mesh hole sizes throughout the range to meet 20mm and 35mm Ball Fall test requirements including the only 50mm Standard Mesh grating on the market that meets the BS 4592 35mm Ball Fall test.
- Gritfied anti-slip surfaces proven to last (maintains up to 95% of its anti-slip performance even after an incredible 1 million footfalls).

*including 23mm Mini and Micro Mesh which achieves Class C.

Stronger.

d² Dura Grating's design has an outstanding performance-to-weight ratio, meaning:

- Lighter or smaller products can be used to reduce project scale and are safer to transport, install and lift than other products on the market.
- Because it's up to 33% lighter than other GRP grating, d² Dura Grating puts less stress on the substructure.
- Whatever load and deflection you're working to, we can show you which product combination will be the strongest and most cost-efficient for your project.

Faster.

d² Dura Grating products can be deployed rapidly to increase productivity and project efficiency:

- Up to 33% lighter products help you adhere to guidance on manual handling using less people.
- d² Dura Grating 38mm weighs just 40kg versus the competitors 60kg, so unlike others is suitable for a 2-person lift.
- Our unique designs and clever packaging reduce on-site logistics requirements such as the need for movement by plant.
- We maintain a vast stock inventory so we can deliver fast - with oil sizes, thicknesses and colours held as stock for immediate call-off or vesting.

Proven.

We make our material science knowledge freely available online so you can conveniently see how d² products perform in place of steel or wood - based on fact.

- 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 can support with structural design optimisation and failure analysis to help reduce time and costs, whilst improving the safety.

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
- Finest Grit
- Suits All Footwear




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 23mm, 38mm, 45mm or 55mm 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

- 20mm Ball Fall Test
- All Rounder
- Narrow Open Hole



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 debris passing through.

Patent Pending Patent Application No: GB 19 04928.7

- Max Load Bearing Strength
- Max Debris Retention
- 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	Product Type	Panel Sizes (mm)	Open Mesh Size (mm)	Weight (kg/m ²)	Colour
Micro Mesh	23mm	3042 x 1041	10.5 x 10.5	11.5	Dark Grey
		4076 x 1300			
		4076 x 1560			
Mini Mesh	23mm	3012 x 1029	13 x 13	11.1	Dark Grey Light Grey Yellow Green Sand Teak
		4033 x 1269			
		4033 x 1511			
Mini Mesh	35mm	3030 x 1041	19.5 x 19.5	13.2	Dark Grey Light Grey Yellow Green Sand Teak
		3667 x 1200			
		3030 x 1041			
Mini Mesh	45mm	3667 x 1200	19.5 x 19.5	15.3	Dark Grey Light Grey Yellow Green Sand Teak
		3030 x 1041			
		3030 x 1041			
Mini Mesh	55mm	3030 x 1041	19.5 x 19.5	19.0	Dark Grey Light Grey Yellow Green Sand Teak
		3667 x 1200			
		3030 x 1041			
Standard Mesh	26mm	3043 x 993	32 x 32	10.3	Dark Grey Light Grey Yellow Green
		3699 x 1239			
		3054 x 996			
Standard Mesh	38mm	3664 x 1224	31 x 31	13.2	Dark Grey Light Grey Yellow Green
		3052 x 1057			
		3682 x 1267			
Standard Mesh	50mm	3682 x 1267	28 x 28	15.7	Dark Grey Light Grey Yellow Green
		978.5 x 765			
		3043 x 993			
Solid Top	Rectangular HD	3669 x 1239	43 x 16	34	Dark Grey
		3054 x 996			
		3663 x 1224			
Solid Top	41mm	3052 x 1057	NONE	21.1	Dark Grey
		3682 x 1267			
		978.5 x 765			
Solid Top	53mm	3682 x 1267	NONE	21.5	Dark Grey
		978.5 x 765			
		Rectangular HD			
Solid Top	Rectangular HD	978.5 x 765	NONE	37	Dark Grey
		3043 x 993			
		3669 x 1239			



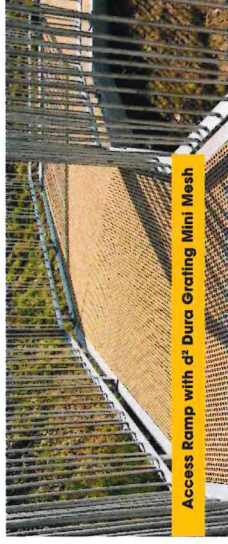
Maximum Spans for Common Load Criteria

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.

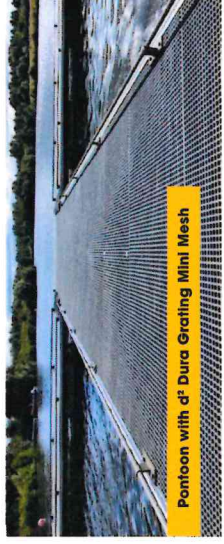
Product Range	Product Type	Max Span 1.5kn Point Load			Max Span 5kn Uniformly Distributed Load		
		@ 0.5% deflection	@ 1% deflection	@ 10mm deflection	@ 0.5% deflection	@ 1% deflection	@ 10mm deflection
Mini Mesh	23mm	340	630	790	770	1010	1010
	35mm	870	1590	1300	710	900	1300
	45mm	1330	2210	1580	880	1170	1600
	55mm	2280	2500	2170	1110	1470	1860
	26mm	500	860	920	510	690	1040
Standard Mesh	38mm	880	2500	1370	780	1020	1470
	50mm	1800	2770	1870	970	1270	1690
	50mm Rec	Full Panel	Full Panel	Full Panel	Full Panel	Full Panel	Full Panel
Solid Top	29mm	830	1460	1220	710	910	1300
	41mm	1960	3400	1970	890	1240	1730
	53mm	2600	Full Panel	2350	1240	1640	1980
	53mm Rec	Full Panel	Full Panel	Full Panel	Full Panel	Full Panel	Full Panel



Riser Void with d² Dura Grating Solid Top



Access Ramp with d² Dura Grating Mini Mesh



Pontoon with d² Dura Grating Mini Mesh



Access Structure with d² Dura Grating Standard Mesh

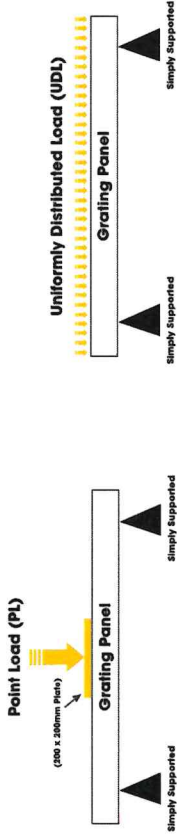


Public Cycle Path with d² Dura Grating Mini Mesh

Proven Load & Deflection Values

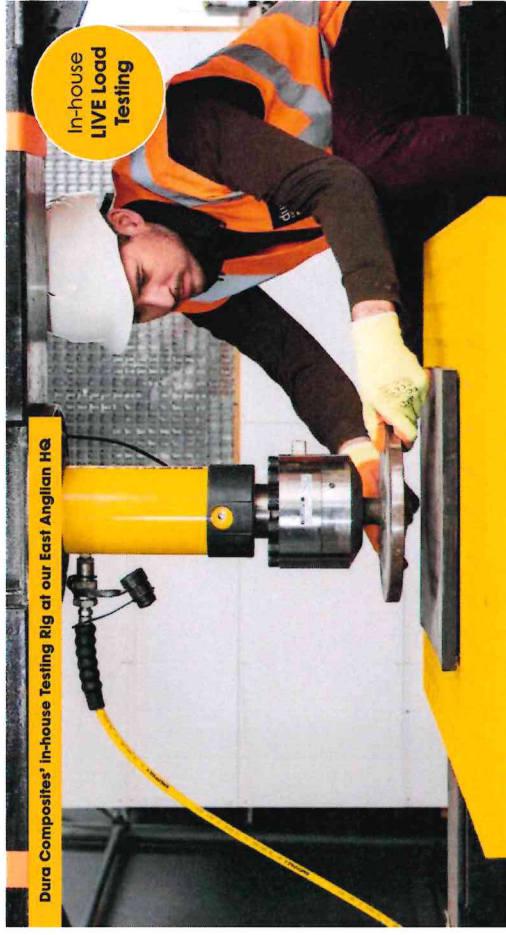
Determining the correct GRP flooring product depends on the load criteria and surface finish requirement selected by the designer.

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.

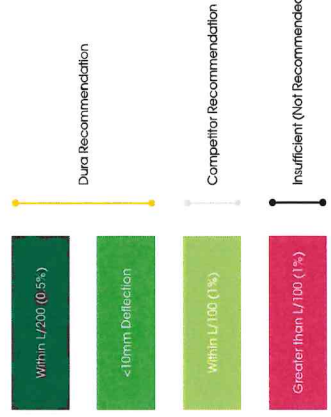


d² Dura Grating Data Tables

On the following pages you will find the deflection data tables for our d² grating products. These include standard Point Load and Uniformly Distributed Load values to help you compare the suitability of products.

If your project requires additional criteria not shown here or you would like to see details for other d² products, please use the Dura Composites Online Product Selector by visiting www.duracomposites.com/powerofcomposites or consult your Dura Composites representative for details.

Please refer to the colour coded key opposite to determine the parameters for each product variant. If you require further support, please don't hesitate to contact us.



Micro Mesh

Table Range		Clear Span (mm)																					
		300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
Point Load (kN)		0.5	0.3	0.6	1.0	1.7	2.5	3.3	4.4	5.9	8.0	10.6	13.8	17.8	23.2	29.8	37.8	46.1	55.3	65.5	76.8	89.0	102.3
UDL (kN/m ²)		1.0	0.7	1.2	2.0	3.4	5.2	7.5	10.5	14.4	19.8	27.2	36.4	48.4	63.2	81.6	103.6	130.0	160.8	197.2	239.2	286.8	340.0
		1.5	1.1	1.8	3.0	5.1	7.4	10.4	14.3	19.7	27.1	36.3	48.3	63.1	81.5	103.5	130.0	160.8	197.2	239.2	286.8	340.0	403.2
		2.0	1.5	2.4	4.0	6.8	10.0	14.2	19.6	27.0	36.2	48.2	63.0	81.4	103.4	130.0	160.8	197.2	239.2	286.8	340.0	403.2	486.4
		2.5	1.9	3.1	5.3	8.9	13.3	18.7	26.1	35.5	47.9	63.3	81.7	104.1	130.5	160.9	197.3	239.7	287.1	340.5	403.9	487.3	580.7
UDL (kN/m ²)		1.0	0.1	0.3	0.6	1.0	1.7	2.6	4.0	5.7	8.0	10.9	14.2	18.2	22.9	28.3	34.2	40.9	48.2	56.2	65.0	74.4	84.6
		2.0	0.2	0.6	1.2	2.1	3.4	5.2	7.6	10.7	14.4	18.8	23.9	29.6	36.1	43.3	51.1	59.7	69.1	79.1	89.9	101.3	113.5
		3.0	0.3	0.9	1.6	3.1	5.0	7.8	11.4	16.0	21.3	27.4	34.3	42.0	50.4	59.6	69.5	80.2	91.5	103.7	116.5	130.1	144.4
		4.0	0.4	1.2	2.4	4.2	6.8	10.5	15.3	21.2	27.8	35.6	44.0	53.8	64.0	74.9	86.7	99.3	112.7	126.8	141.6	157.2	173.6
		5.0	0.5	1.5	3.0	5.3	8.5	13.0	18.8	26.0	34.1	43.5	53.9	65.3	77.2	90.2	103.4	117.2	132.5	148.7	165.6	183.3	201.8



Mini Mesh

Table Range		Clear Span (mm)																					
		300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
Point Load (kN)		0.5	<1.0	<1.0	1.0	1.5	2.3	3.3	4.4	5.7	7.1	8.8	11.6	15.2	19.8	25.4	32.0	39.6	48.1	57.5	67.8	78.9	90.7
UDL (kN/m ²)		1.0	<1.0	<1.0	1.0	1.8	2.8	4.1	5.6	7.3	9.1	11.4	14.2	18.0	22.8	28.6	35.4	43.2	52.0	61.8	72.6	84.4	97.2
		2.0	<1.0	<1.0	1.0	2.1	3.6	5.1	7.0	9.1	11.4	14.1	17.4	21.6	26.8	33.0	40.2	48.4	57.6	67.8	79.0	91.2	104.4
		3.0	<1.0	<1.0	1.5	3.1	5.4	8.4	12.1	16.5	21.2	26.3	32.1	38.9	46.7	55.5	65.3	76.1	87.9	100.7	114.5	129.3	145.1
		4.0	<1.0	<1.0	2.0	4.2	7.2	11.2	16.1	21.9	28.5	35.3	43.1	51.9	61.7	72.5	84.3	97.1	110.9	125.7	141.5	158.3	176.1
		5.0	<1.0	<1.0	2.8	5.7	9.5	14.4	20.2	26.9	34.7	43.5	53.3	64.1	75.9	88.7	102.5	117.3	133.1	149.9	167.7	186.5	206.3

Mini Mesh (Continued)

Table Range		Clear Span (mm)																				
		300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Point Load (kN)		0.5	<1.0	<1.0	<1.0	<1.0	1.1	1.3	1.7	2.1	2.6	3.1	3.7	4.3	5.1	6.0	7.2	8.5	10.1	11.9	13.9	16.2
UDL (kN/m ²)		1.0	<1.0	<1.0	1.0	1.4	1.8	2.4	3.0	3.8	4.6	5.6	6.6	7.8	9.2	10.7	12.5	14.5	16.8	19.4	22.3	25.6
		1.5	<1.0	<1.0	1.4	2.0	2.8	3.7	4.6	5.8	7.0	8.4	10.0	11.8	13.9	16.2	18.9	21.8	25.2	28.9	33.0	37.5
		2.0	<1.0	<1.0	1.8	2.7	3.9	5.2	6.5	8.0	9.3	11.2	13.3	15.7	18.5	21.6	25.2	29.2	33.6	38.4	43.8	49.6
		2.5	<1.0	1.2	2.3	3.4	4.7	6.1	7.7	9.6	11.6	13.9	16.5	19.5	23.1	27.0	31.5	36.5	42.0	48.0	54.7	61.8
UDL (kN/m ²)		1.0	<1.0	<1.0	<1.0	<1.0	1.0	1.6	2.5	3.6	4.9	6.5	8.5	10.9	13.8	17.3	21.6	26.7	32.6	39.4	47.4	56.3
		2.0	<1.0	<1.0	<1.0	1.4	2.3	3.6	5.2	7.3	9.9	13.1	17.1	22.0	27.8	35.0	43.3	52.9	64.0	76.6	90.7	106.5
		3.0	<1.0	<1.0	1.3	2.1	3.5	5.4	7.8	10.9	14.8	19.6	25.6	32.9	41.9	52.6	65.3	80.0	96.8	115.6	136.3	159.0
		4.0	<1.0	<1.0	1.2	1.6	2.7	4.5	6.8	10.2	14.5	19.7	26.1	34.2	44.5	56.9	71.5	88.5	107.9	129.7	152.2	180.6
		5.0	<1.0	1.2	1.6	1.9	3.3	5.6	9.0	13.4	19.0	26.2	35.1	46.0	59.1	74.9	93.1	113.7	137.0	163.0	192.2	224.0

d² Dura Grating 45mm Mini Mesh

Table Range		Clear Span (mm)																				
		300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Point Load (kN)		0.5	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	1.2	1.4	1.8	2.2	2.6	3.2	3.8	4.6	5.4	6.3	7.4	8.6	10.0	11.5
UDL (kN/m ²)		1.0	<1.0	<1.0	<1.0	1.1	1.4	1.7	2.0	2.4	2.9	3.5	4.3	5.1	6.1	7.1	8.3	9.7	11.2	12.8	14.6	16.7
		1.5	<1.0	<1.0	1.1	1.6	2.1	2.5	3.0	3.6	4.3	5.2	6.3	7.6	9.0	10.2	11.8	13.5	15.4	17.4	19.5	21.6
		2.0	<1.0	<1.0	1.4	2.1	2.7	3.3	4.0	4.8	5.8	6.9	8.2	9.7	11.3	13.1	15.0	17.1	19.5	22.0	24.6	27.3
		2.5	<1.0	1.1	1.7	2.5	3.3	4.2	5.1	6.1	7.2	8.6	10.1	11.8	13.7	15.8	18.1	20.5	23.1	25.9	28.9	32.1
UDL (kN/m ²)		1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	1.8	2.5	3.3	4.2	5.3	6.6	8.0	9.7	11.4	13.4	15.7	18.2	21.0
		2.0	<1.0	<1.0	<1.0	<1.0	1.2	1.8	2.6	3.6	5.0	6.6	8.6	10.8	13.4	16.3	19.4	22.8	26.4	30.4	34.6	39.3
		3.0	<1.0	<1.0	<1.0	1.2	1.8	2.7	3.9	5.4	7.5	10.0	13.0	16.4	20.3	24.6	29.4	34.5	40.1	46.0	52.3	59.0
		4.0	<1.0	<1.0	<1.0	1.5	2.4	3.6	5.2	7.3	10.0	13.3	17.4	22.0	27.2	33.0	39.3	46.2	53.5	61.3	69.2	78.2
		5.0	<1.0	<1.0	1.1	2.0	3.1	4.7	6.7	9.4	12.8	16.9	21.8	27.3	33.7	40.8	48.5	56.9	65.8	75.3	85.3	95.8

d² Dura Grating 55mm Mini Mesh

Table Range		Clear Span (mm)																				
		300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Point Load (kN)		0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	1.2	1.4	1.7	2.0	2.4	2.8	3.3	3.8
UDL (kN/m ²)		1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	1.6	1.9	2.2	2.6	3.0	3.5	4.1	4.7
		1.5	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	1.4	1.7	2.1	2.4	2.9	3.4	3.9	4.6	5.3	6.1	7.0	8.0	9.1	10.3
		2.0	<1.0	<1.0	<1.0	1.2	1.5	1.9	2.3	2.8	3.3	3.8	4.5	5.3	6.1	7.1	8.2	9.4	10.7	12.1	13.6	15.3
		2.5	<1.0	<1.0	<1.0	1.1	1.5	1.9	2.4	2.9	3.4	4.1	4.8	5.6	6.6	7.7	8.9	10.2	11.5	13.3	15.1	17.0
UDL (kN/m ²)		1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	1.8	2.3	3.0	3.8	4.8	5.9	7.3	8.8
		2.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	1.5	2.0	2.7	3.6	4.7	6.0	7.6	9.6	11.8	14.3	17.2	20.5	24.1	28.1
		3.0	<1.0	<1.0	<1.0	<1.0	1.0	1.5	2.2	3.0	4.1	5.4	7.0	9.0	11.4	14.3	17.7	21.5	25.8	30.5	35.8	41.4
		4.0	<1.0	<1.0	<1.0	<1.0	1.3	2.0	2.9	4.0	5.5	7.2	9.4	12.2	15.4	19.2	23.5	28.6	34.1	40.2	46.9	54.2
		5.0	<1.0	<1.0	<1.0	<1.0	1.0	1.6	2.5	3.7	5.3	7.2	9.6	12.4	15.8	19.9	24.6	29.8	35.7	42.2	49.5	57.3

Rectangular Mesh

Please note that the loads illustrated for this product range are significantly higher than for the products shown on previous pages and therefore the table values for Point Load and UDL are greater. The Clear Span is limited to 750mm due to the maximum panel size of 978.5mm by 765mm.

d² Dura Grating 50mm Rectangular Standard Mesh

Table Range	Clear Span (mm)										
	300	350	400	450	500	550	600	650	700	750	
Point Load (kN)	5.0	6.2	0.3	0.5	0.6	0.8	1.1	1.3	1.7	2	2.4
6.0	0.2	0.4	0.6	0.8	1	1.3	1.6	2	2.4	2.9	
7.0	0.2	0.4	0.6	0.9	1.1	1.5	1.9	2.3	2.8	3.3	
8.0	0.3	0.5	0.7	1	1.3	1.7	2.1	2.6	3.2	3.8	
9.0	0.3	0.5	0.8	1.1	1.5	1.9	2.4	2.9	3.6	4.3	
10.0	0.3	0.6	0.9	1.3	1.7	2.1	2.7	3.3	3.9	4.7	
11.0	0.4	0.7	1	1.4	1.8	2.4	2.9	3.6	4.3	5.1	
12.0	0.4	0.7	1.1	1.5	2	2.6	3.2	3.9	4.7	5.5	

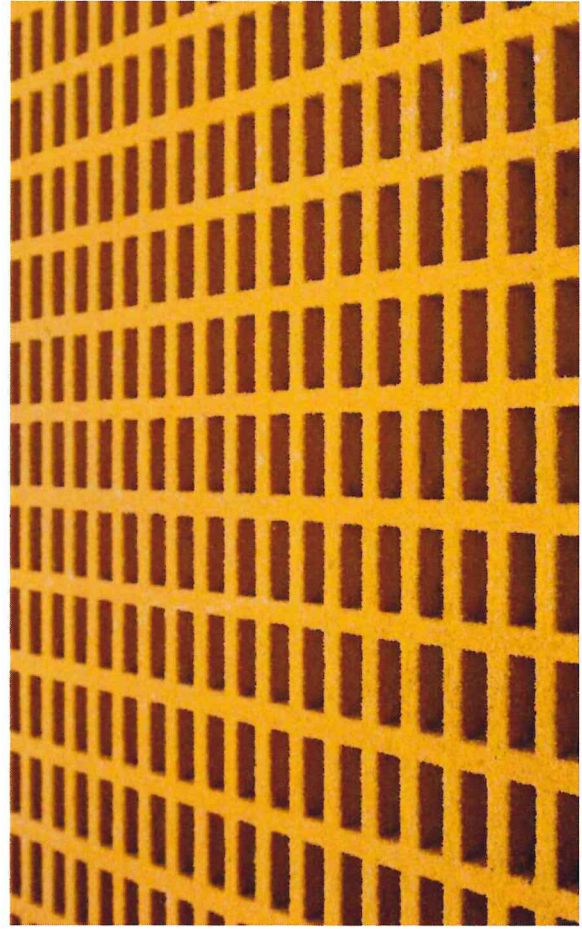
UDL (kN/m²)	Clear Span (mm)										
	300	350	400	450	500	550	600	650	700	750	
5.0	0	0	0	0	0.1	0.2	0.2	0.3	0.3	0.3	
6.0	0	0	0	0.1	0.1	0.2	0.3	0.4	0.4	0.3	
7.0	0	0	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.4	
8.0	0	0	0.1	0.1	0.3	0.4	0.6	0.5	0.5	0.5	
9.0	0	0	0.1	0.2	0.3	0.4	0.6	0.9	0.6	0.6	
10.0	0.1	0	0.1	0.2	0.3	0.4	0.7	0.9	0.9	1.2	
11.0	0.1	0	0.1	0.2	0.4	0.5	0.8	1	1.3	1.3	
12.0	0.1	0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.4	

d² Dura Grating 63mm Rectangular Solid Top

Table Range	Clear Span (mm)										
	300	350	400	450	500	550	600	650	700	750	
Point Load (kN)	5.0	0	0.2	0.3	0.4	0.5	0.7	0.8	1	1.2	1.4
6.0	0	0.2	0.4	0.5	0.7	0.8	1	1.2	1.4	1.6	
7.0	0	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.9	
8.0	0	0.3	0.5	0.7	0.9	1.1	1.3	1.6	1.9	2.1	
9.0	0	0.3	0.5	0.8	1	1.2	1.5	1.8	2.1	2.4	
10.0	0	0.3	0.6	0.8	1.1	1.4	1.7	2	2.3	2.6	
11.0	0	0.3	0.6	0.9	1.2	1.5	1.8	2.2	2.5	2.9	
12.0	0	0.4	0.7	1	1.3	1.7	2	2.3	2.7	3.1	

UDL (kN/m²)	Clear Span (mm)										
	300	350	400	450	500	550	600	650	700	750	
5.0	0	0	0	0	0	0.1	0.1	0.2	0.2	0.2	
6.0	0	0	0	0	0	0.1	0.1	0.2	0.3	0.2	
7.0	0	0	0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	
8.0	0	0	0	0.1	0.1	0.2	0.3	0.4	0.3	0.4	
9.0	0	0	0	0.1	0.1	0.2	0.3	0.4	0.6	0.4	
10.0	0.1	0	0	0.1	0.1	0.2	0.3	0.5	0.7	0.9	
11.0	0.1	0	0	0.1	0.2	0.3	0.4	0.5	0.7	0.9	
12.0	0.1	0	0	0.1	0.2	0.3	0.4	0.6	0.8	1	

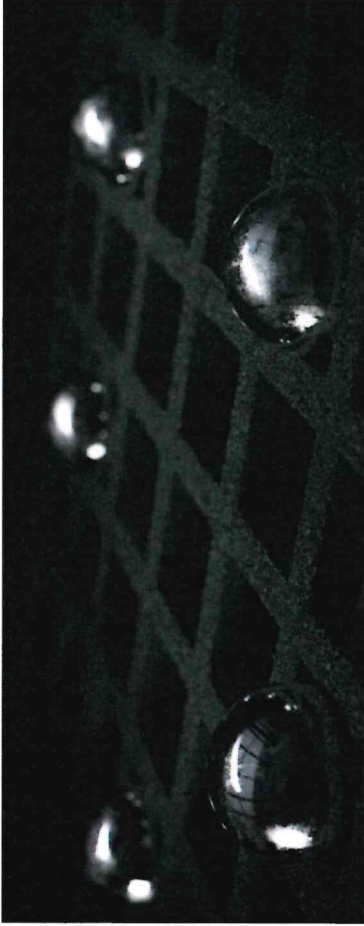
Key: Within U/200 (0.5%) < 10mm Deflection Greater than U/100 (1%)



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.

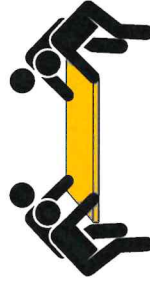
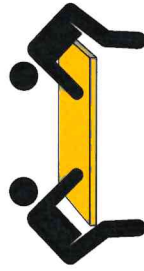


d² Grating Products are Superior Versus Competitors

Not all composites are created equal. We're lucky enough to be able to control every aspect of our design, manufacture and supply. That's why we're the experts in structural walkway grating. Some of the key features of our unique d² Dura Grating include:

33% Lighter

d² Dura Grating panels are also up to 33% lighter than competitor GRP grating panels of the same size and thickness, making them easier to handle on site and cheaper transport to site. Choosing lighter d² Dura Grating products will help you adhere to guidance on manual handling using less people, and in many cases can reduce handling requirements from a 4-person lift to a 2-person lift.

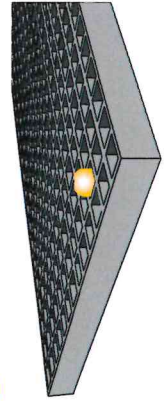


e.g. 38mm d² Dura Grating at 40kg = 2 Person Lift

e.g. Competitor 38mm Grating at 60kg = 4 Person Lift

20mm and 35mm Ball Fall Test Compliant

d² Dura Grating is the only GRP Grating range where every product meets the 20mm or 35mm Ball Fall Tests - the main standard in common usage for GRP flooring.



Understanding the Ball Fall Test

British Standard BS4592:0-2006+A1:2012 states that the maximum openings within a working platform or walkway shall not permit the passage of a 35mm diameter sphere, except where the working platform or walkway is above a place where people are working, as opposed to passing occasionally, in which case the maximum openings shall not permit the passage of a 20mm diameter sphere.

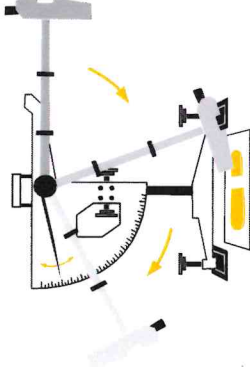
Ball Fall Test



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.



Understanding the Pendulum Test

In simple terms, the higher the PTV number the better. The PTV equates to an approximate accident risk and is based on the basic condition of a reasonably active pedestrian aged between 18-60 years, walking in a straight line at moderate pace, not turning, carrying, pushing or pulling a load.

A low slip potential value is 36 or more, a moderate value is 25 to 36 and a high value is 0-24.

Pendulum Test



Fire Rated to Class B

The fire classification of d² Dura Grating is B (fl-s1) means 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


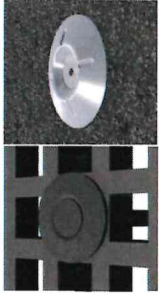

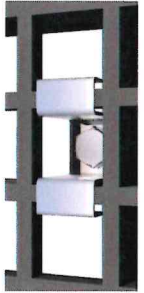







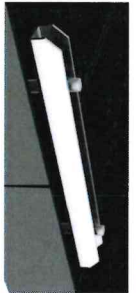


Bfl-s1

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 cd (none) to cd2 (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 		<ul style="list-style-type: none"> 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 		<ul style="list-style-type: none"> Fits directly to substrate. Recessed design sits just 1.5mm proud on bar. M6 Bolt Socket Cap Head compatible.
J Clamp Straight, Offset 		<ul style="list-style-type: none"> 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.
Square Recessed Clip Small, Large 		<ul style="list-style-type: none"> Direct fix to substrate. Heavy Duty fixing clip. Compatible with various fixing systems. Recessed design sits just 1.5mm proud.
Uni-Strut Clamp 		<ul style="list-style-type: none"> Mid-span panel to panel corrector. Ideal for panel joints. Friction fixing clamp. Used to reduce differential. M8 Bolt Thread compatible. M8 Easyfix style Nut essential.
Channel Clamp 		<ul style="list-style-type: none"> 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 		<ul style="list-style-type: none"> 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
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

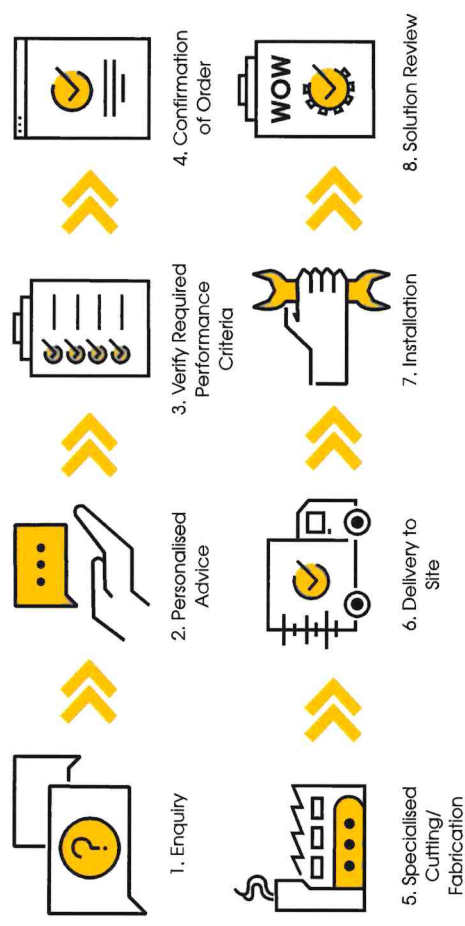
Let Dura Composites Unlock the Power of Composites for Your Next Project >>

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 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 schemes.
 - 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:





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 schemes 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 as 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

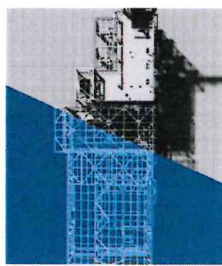
Our specialist cutting team offer a full range of services to ensure that our product meets your exacting requirements so you can install with confidence. Our 2D, 3D, and 4-axis CAD team are the best people to help you get a first impression of how you can utilise our market-leading products. Once the 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 Modelling (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' of 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. In addition, we utilise 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.

*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 our service. However, there are a few outlying areas where this may not be possible. Check for service availability to your postcode area.



3D Scanning Services

We offer specialist 3D Laser Scanning and Photogrammetric Surveys for your projects.

Our 3D scanning service uses light and radar (LiDAR) to measure and record precise locations and distances to produce a point cloud file and help to capture a level of accuracy that would never be possible by hand.

We also offer photogrammetry 3D mapping using unmanned aerial vehicles (UAVs) or drones. These non-invasive techniques allow us to carry out site surveys quickly and safely, with minimal disruption - making linear, point-to-point measurements without the need to manually capture data.



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 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.

*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 recommendation 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

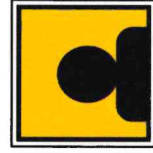
The material data reported has been compiled to allow engineers and specifiers to quantify the material properties with those contained within specifications.



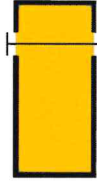
Property Comparison

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.

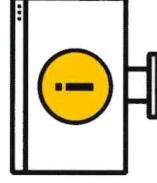
So what are you waiting for? Unlock the Power of Composites and discover the Dura difference for yourself.



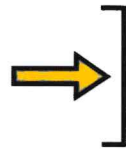
1. Register



2. Insert Specifications



3. Get Product Recommendations



4. Download Technical Data

 +31 (0)88 210 2030

 info@bfftrading.nl

 www.bfftrading.nl

**de kracht van composiet
materialen >>>**



leverancier van d² en andere unieke composiet producten