

# GRP Solid Top Grating

Our GRP Solid Top Grating is a specially designed moulded non-slip composite floor grating, constructed from glass reinforced fibreglass making it lightweight, chemical, rust, and corrosion resistant whilst also offering longevity and durability.

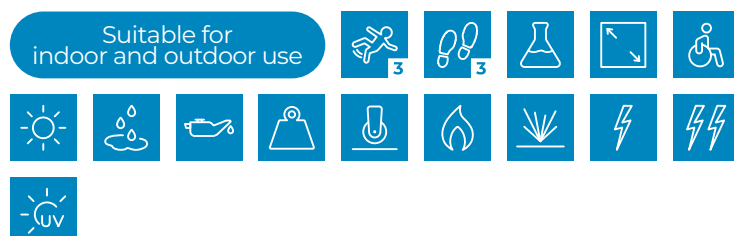
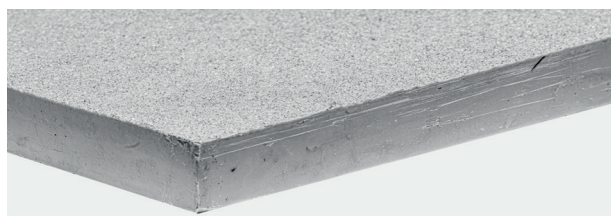
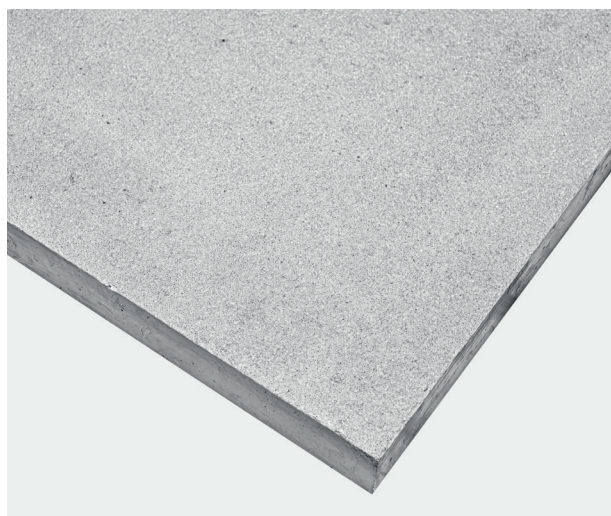
Effectively a standard mesh panel with an anti-slip flooring plate bonded to one side, the solid surface allows smoother movement of wheeled traffic and prevents objects falling through to the level below.

Available in 41mm and 53mm thicknesses. We can also cut to any size using our in-house cutting service.

Optional fixing disc is available to purchase if required.

## Features

- ◆ **Typical applications:** Perfect solution for platforms, walkways, flooring, ramps and covers for industrial or construction sites, chemical and shipping industries, water treatment plants as well as offshore oil rigs.
- ◆ **Material:** GRP - Glass reinforced polyester with a resin coated gritted surface.
- ◆ **Cleaning:** Use of a stiff brush will normally be sufficient to remove everyday dirt and debris, and for more stubborn dirt a mild detergent with warm water is often effective. A pressure washer on a low pressure setting can be used to clean the GRP.
- ◆ **Warranty:** Lifetime.



Code	Size	Thickness	Weight	Colour
GRS4812-41GY	3660mm x 1220mm	41mm	90kg	Grey
GRS4812-54GY	3660mm x 1220mm	54mm	115kg	Grey
FD45SS	Fixing Disc 45mm		0.1kg	Stainless Steel

Please note, cutting tolerance +/- 5mm

## Our delivery promise

We guarantee your order will be shipped on time, every time.  
That's the Blue Diamond difference.

V5.04.25

## Get in touch

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# GRP Solid Top Grating

## Technical Specification

Slip resistant:	Excellent slip resistance to level 3
Wear resistant:	Excellent wear resistance to level 3, suitable for heavy footfall
Chemical resistant:	Yes
Cut to size:	Yes, tolerance +/- 3mm
Disability friendly:	Yes, the low profile makes it suitable for wheelchair users
Dry area:	Yes
Wet area:	Yes
Oily and greasy area:	Yes
Heavy area:	Yes
Wheeled area:	Yes
Environment:	Suitable for indoor and outdoor use
Flame retardant:	Yes
Impact resistant:	Yes
Non-conductive (Electrical):	Yes
Non-conductive (HV Electrical):	Yes

Product testing:	◆ Slip resistance
	◆ Tested to BS 7976.2 - PTV 'Extremely Low' for wet and dry conditions, PTV 'Low' for oily and greasy conditions
	◆ Coefficient of Friction (CoF): Dry 72; Wet 68 and Oil 63
	◆ Fire classification
	◆ EN 13501-1: Class B-s1, d0
	◆ ASTM E84-2018 Class 1
	◆ Load certificate
	◆ BS EN 124 – Class A15
	◆ UV certificate
	◆ UV Weather ISO 4892-2 Xenon Arc 5000hrs

Temperature resistance: -50°C to +110°C

UV Resistant: Yes

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## Pendulum Slip Testing

The pendulum slip testing was carried out on 17.02.23 and concluded that our GRP Grating achieved the highest slip resistant classification of 'Extremely Low' pedestrian slip risk for wet and dry conditions and 'Low' for oily/greasy areas.

Pendulum Test Value (PTV)	Slip Risk
0 - 24	High
25 - 35	Moderate
36 - 64	Low
65+	Extremely Low

Pendulum test results	Coefficient of Friction (CoF)		
	Dry	Wet	Oil
Standard Grit	72	68	63

## GRP Care and Maintenance

### ◆ Cleaning

Being a highly durable material, using a stiff brush will normally be sufficient to remove everyday dirt and debris, and for more stubborn dirt, wash with warm water and a mild detergent. A pressure washer on a low-pressure setting can also be used, however, care should be taken to ensure that this does not harm the integrity of the fixings being used, likely to be screws and/or adhesive.

We recommend always testing any cleaning method and liquids on a small inconspicuous section before applying to the full area. Any spills should be cleaned immediately in line with the product data sheets and the company's own safety procedures.

### ◆ General Routine Maintenance

The integrity of all fixings should be checked on a regular basis to ensure that the grating remain in a firm and stable position. The gritted surfaces and GRP substrate should also be checked regularly, the frequency would depend on the nature and volume of footfall. As a guide, for high traffic areas a monthly inspection would be advisable.

### ◆ Life expectancy

Our GRP Grating have a design life of 10+ years, however, the life expectancy of any flooring product will be dictated by the nature and volume of the traffic it receives. Factors such as footwear type and material, weight of individual, pedestrian or non-pedestrian traffic, and any contamination such as dirt or grit are all factors that will influence the life term through natural wear and tear of the GRP.

# GRP Solid Top Grating

## Installation

### ◆ Handling

Safe handling practices should always be employed. GRP should also be stored face down to prevent damage.

### ◆ Cutting

Minor adjustments, small cut outs, can be made with a hacksaw or a jigsaw with a suitable blade. We offer a full in-house cutting service, however, should you wish to cut the grating yourself, this is easily to do by using orbital cutting equipment with either a stone or diamond blade. Cutting should be carried out externally, or where there is dust extraction, or suitable ventilation. Appropriate protective equipment should always be worn.

## We're here to help

Should you have any questions about our GRP Grating, or need advice regarding care, maintenance or installation, we're only a phone call away.

# GRP Solid Top Grating

## Safe Load and Deflection Charts (mm) – Uniform and Concentrated Line Loads

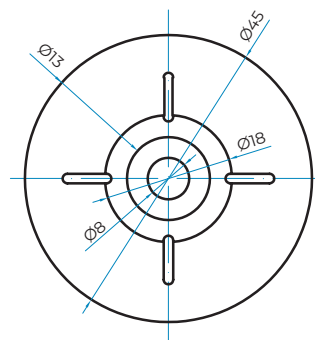
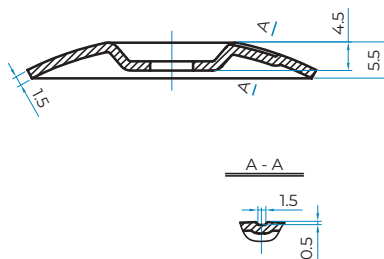
Mesh Size	Load Bar Size	Span (mm)	Type of Load	Uniform load – ΔU (kN/m²) – Deflection (mm) Concentrated line load – ΔC (kN/m) – Deflection (mm)													
				3	5	8	10	15	20	25	30	40	50	60	80	90	100
38x38	38x6	200	ΔU	0.08	0.13	0.20	0.26	0.38	0.51	0.64	0.77	1.02	1.28	1.54	2.05	2.31	2.56
			ΔC	0.16	0.27	0.43	0.53	0.80	1.07	1.33	1.60	2.13	2.66	3.20	4.26	4.80	5.33
		400	ΔU	0.12	0.20	0.31	0.39	0.59	0.79	0.98	1.18	1.57	1.96	2.36	3.14	3.53	3.93
			ΔC	0.45	0.75	1.21	1.51	2.26	3.02	3.77	4.52	6.03	7.54	9.05	12.07	13.57	15.08
		600	ΔU	0.42	0.70	1.13	1.41	2.11	2.82	3.52	4.23	5.63	7.04	8.45	11.27	12.68	14.09
			ΔC	1.23	2.04	3.27	4.09	6.13	8.17	10.21	12.26	16.34					
		800	ΔU	1.39	2.32	3.71	4.64	6.96	9.28	11.60	13.92	18.56					
			ΔC	2.83	4.71	7.54	9.42	14.14	18.85								
		1000	ΔU	3.53	5.88	9.41	11.76	17.64									
			ΔC	5.61	9.34	14.95	18.68										
		1200	ΔU	7.43	12.38	19.81											
			ΔC	9.91	16.51												

Mesh Size	Load Bar Size	Span (mm)	Type of Load	Uniform load – $\Delta U$ (kN/m <sup>2</sup> ) – Deflection (mm) Concentrated line load – $\Delta C$ (kN/m) – Deflection (mm)													
				3	5	8	10	15	20	25	30	40	50	60	80	90	100
50x50	50x6	200	$\Delta U$	0.04	0.07	0.12	0.15	0.22	0.30	0.37	0.45	0.60	0.75	0.90	1.20	1.35	1.50
			$\Delta C$	0.09	0.16	0.25	0.31	0.47	0.62	0.78	0.94	1.25	1.56	1.87	2.50	2.81	3.12
		400	$\Delta U$	0.07	0.11	0.18	0.23	0.34	0.46	0.57	0.69	0.92	1.15	1.38	1.84	2.07	2.30
			$\Delta C$	0.26	0.44	0.71	0.88	1.32	1.77	2.21	2.65	3.53	4.41	5.30	7.06	7.95	8.83
		600	$\Delta U$	0.25	0.41	0.66	0.82	1.24	1.65	2.06	2.47	3.30	4.12	4.95	6.60	7.42	8.25
			$\Delta C$	0.72	1.20	1.91	2.39	3.59	4.78	5.98	7.17	9.57	11.96	14.35	19.13	21.52	23.91
		800	$\Delta U$	0.81	1.36	2.17	2.72	4.07	5.43	6.79	8.15	10.86	13.58	16.29	21.73	24.44	
			$\Delta C$	3.28	5.47	8.75	10.94	16.40	21.87								
		1000	$\Delta U$	2.06	3.44	5.51	6.88	10.32	13.76	17.20	20.64						
			$\Delta C$	3.28	5.47	8.75	10.94	16.40	21.87								
		1200	$\Delta U$	4.35	7.25	11.60	14.50	21.75									
			$\Delta C$	5.80	9.66	15.46	19.33										

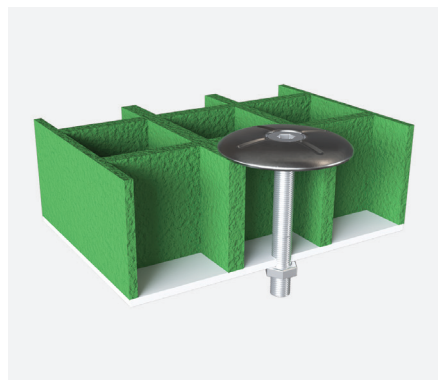
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## GRP Grating Accessories

### Fixing Disc 45mm



## Installation Diagram



Fixing Disc

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## GRP Chemical Resistance Chart

Environment	%Conc.	Max.Oper. Temp.F/C.	Environment	%Conc.	Max.Oper. Temp.F/C.
Acetic Acid	50	125/52	Lithium Chloride	SAT	150/66
Aluminum Hydroxide	100	160/71	Magnesium Chloride	ALL	170/77
Ammonium Chloride	ALL	170/77	Magnesium Nitrate	ALL	140/60
Ammonium Bicarbonate	15	125/52	Magnesium Sulphate	ALL	170/77
Ammonium Hydroxide	28	N/R	Mercuric Chloride	100	150/66
Ammonium Sulphate	ALL	170/77	Mercurous Chloride	ALL	140/60
Benzene	ALL	N/R	Nickel Chloride	ALL	170/77
Benzoic Acid	SAT	150/66	Nickel Sulphate	ALL	170/77
Borax	SAT	170/77	Nitric Acid	20	70/21
Calcium Carbonate	ALL	170/77	Oxalic Acid	ALL	75/24
Calcium Nitrate	ALL	180/82	Perchloric Acid	10	N/R
Carbon Tetrachloride	100	N/R	Phosphoric Acid	100	120/49
Chlorine Dry Gas	-	140/60	Potassium Chloride	ALL	170/77
Chlorine Water	SAT	80/27	Potassium Dichromate	ALL	170/77
Chromic Acid	5	70/21	Potassium Sulphate	ALL	170/77
Citric Acid	ALL	170/77	Propylene Glycol	ALL	170/77
Copper Chloride	ALL	170/77	Sodium Acetate	ALL	160/71
Copper Cyanide	ALL	170/77	Sodium Bisulphate	ALL	170/77
Copper Nitrate	ALL	170/77	Sodium Bromide	ALL	170/77
Ethanol	50	75/24	Sodium Cyanide	ALL	170/77
Ethylene Glycol	100	90/32	Sodium Hydroxide	N/R	N/R
Ferrous Chloride	ALL	170/77	Sodium Nitrate	ALL	170/77
Formaldehyde	50	75/24	Sodium Sulphate	ALL	170/77
Glucose	100	170/77	Stannic Chloride	ALL	160/71
Gasoline	100	80/27	Sulfuric Acid	25	75/24
Glycerine	100	150/66	Tartaric Acid	ALL	170/77
Hydrobromic Acid	50	120/49	Vinegar	100	170/77
Hydrochloric Acid	37	75/24	Water Distilled	100	170/77
Hydrogen Peroxide	5	100/38	Zinc Nitrate	ALL	170/77
Lactic Acid	ALL	170/77	Zinc Sulphate	ALL	170/77