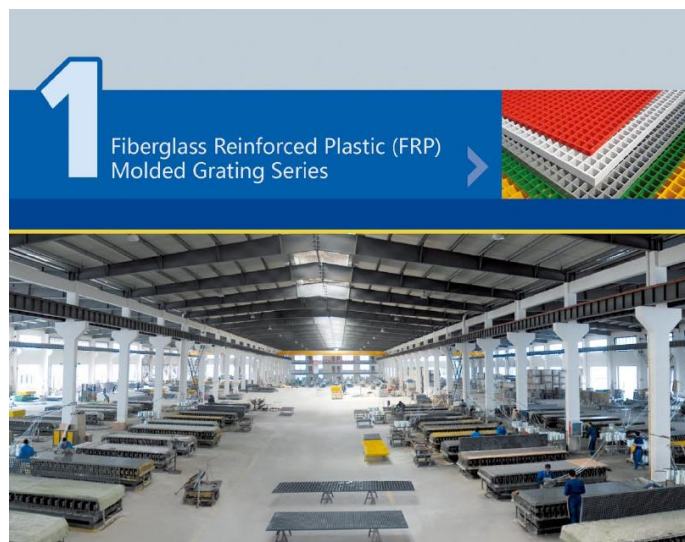


Fibreglass Reinforced Plastic (FRP)

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Benefits of FRP grating

1. **Chemical / Corrosion Resistant** - FRP products are designed to withstand deterioration from industrial chemicals and environmental factors. Unlike carbon steel, aluminum, concrete or other conventional materials FRP will not corrode and therefore require costly maintenance. FRP can be exposed to continuous submersion, splash, spills, fumes or gases, and still maintain its integrity. It is resistant to insects. A comprehensive chemical resistance guide is attached.

2. **Fire Resistance** - CQ Fibreglass Direct FRP products have excellent fire resistance properties. Three of the resins available in FRP Grating meet Class 1 flame spread ratings of 30 or less. Phenolic Grating is specifically designed for underground and offshore applications, thanks

to its maximum fire resistance, as well as low smoke and toxic fume emissions. Grating has been tested in accordance to ASTM E-84

3. **No Maintenance** - FRP products will not rust, corrode or fade and therefore do not require painting, sandblasting or most importantly - replacing. Special UV inhibitors are integral to the products, meaning they will withstand the harsh sun, even in Australia's tough environment. UV resistance is enhanced with the use of a synthetic surfacing veil creating a resin rich surface. The inhibitors / pigments are also mixed in with the resin so it is contained through every strand of material.
4. **Non-Skid** - Our FRP flooring products have a range of different anti-skid profiles not limited to embedded grip, post-cure grit, concave, chequered plate. The slip resistant surfaces are extremely durable and offer much higher levels of slip resistance than steel. Our FRP flooring is created to be a long lasting, incredibly safe walking surface for your staff and customers.
5. **Thermally / Electrically Non-Conductive** - Fiberglass is non-conductive and has a high dielectric capability making it ideally suited for electrically hazardous locations.. Metals like steel and aluminium conduct electricity and must be grounded. FRP is a great insulator with low thermal conductivity. Unlike steel and aluminium, which conduct heat, fiberglass products maintain a constant temperature.
6. **Impact resistance** - Fiberglass will not permanently deform or break under impact like traditional building materials. The glass mat in pultruded parts distributes impact load to prevent surface damage, even in subzero temperatures. Various amount of deflection can occur with loading, depending on the product. However, once the load is removed it will return to its original shape.
7. **Weight** - FRP is only 2/3 the weight of aluminium and 1/4 the weight of steel. This makes the material much easier to lift for installation or repairs, leading to lower transport, maintenance and installation costs.
8. **Variety** - Since fibre reinforced polymer components are molded, colour can be mixed straight through the part. For more traditional materials, a combination of paints, stains, and coatings must be used and will require periodic re-applications. A wide range of colours are available
9. **Installation** - While the material purchase price is important, the client should also consider the related costs of installation, maintenance and replacement over the life time of the project. FRP products do not require

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any welding or heavy engineering for installation. Because of the ease and speed of installation, lack of maintenance required and long lasting durability the long lasting benefits far out way the initial cost.

10. **Nil Ignition Source** - FRP products are ideally suited for those installations where combustible gases / fuel sources may be found. FRP is completely non sparking. Other materials may cause a potential ignition from sparks produced from accidental collision or dropping of tools onto a metal surface.

Reference Pictures Of FRP Molded Grating





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21

13.33x13.33/40x40/40



22

25.4x25.4/50.8x50.8/50



23

25.4x50.8x38
(Heavy Duty)



24

25.4x50.8x50
(Heavy Duty)



25

38.1x101.6x38



26

25.4x101.6x25
(Heavy Duty)



27

25.4x101.6x30



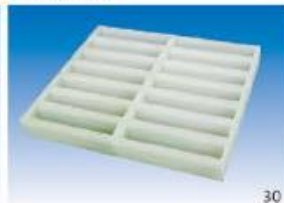
28

25.4x101.6x38



29

25.4x152.4x38



30

38.1x152.4x38



31

60x220x40



32

25.4x101.6x38
(Moltruded Grating)



33

38.1x152.4x38
(Special Type Of The Phenolic)



34

38.1x101.6x50
(Moltruded Grating)



35

38.1x152.4x38
(Type Of Stair Tread)



36

20x20/40x40x14



37

20x20/40x40x30



38

40x40x40



39

50x50x40



40

13.3x13.3/40x40x22

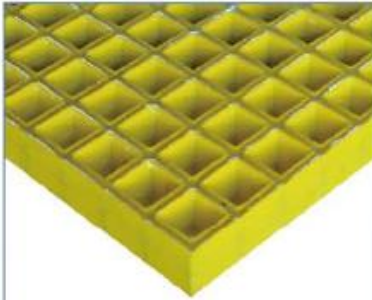
All work Completed is in Accordance with ISO -9001

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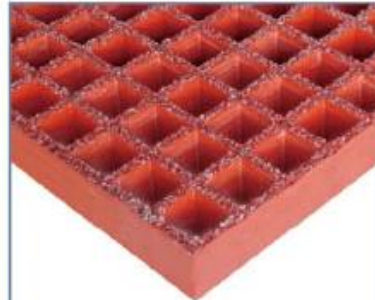
Choices Of Surface For FRP Molded Grating



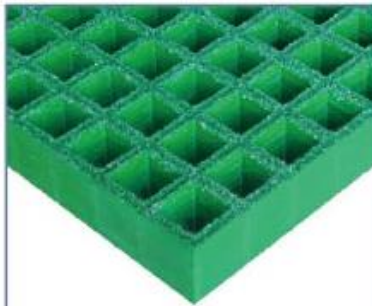
Meniscus(Concave)



Smooth



Embedded Grit



Post-Cure Grit



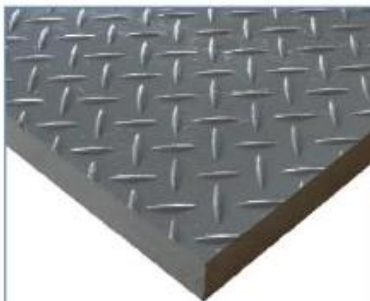
Mini Mesh



Micro Mesh



Mirror Surface



Chequered Plate



Gritted Solid Top



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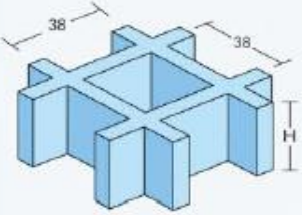
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Molded Grating In Details, Unit:mm

NO.1 38 × 38

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	13	6.0/5.0	38.1 × 38.1	1220 × 4000 1220 × 3660	6	68%
	15	6.1/5.0	38.1 × 38.1	1220 × 4000	7	65%
	20	6.2/5.0	38.1 × 38.1	1220 × 4000	9.8	65%
	25	6.4/5.0	38.1 × 38.1	1524 × 4000 1220 × 4000 1220 × 3660 998 × 4085	12.3	68%
	30	6.5/5.0	38.1 × 38.1	1524 × 4000 996 × 4090 996 × 4007 1220 × 3660 1220 × 4312	14.6	68%
	35	10.5/9.0 heavy duty	38.1 × 38.1	1227 × 3666	29.4	56%
	38	7.0/5.0	38.1 × 38.1	1524 × 4000 1220 × 4235 1220 × 4000 1220 × 3660 1000 × 4007	19.5	68%
	50	11.0/9.0 heavy duty	38.1 × 38.1	1220 × 4225	42	56%
	60	11.5/9.0 heavy duty	38.1 × 38.1	1230 × 4000 1230 × 3666	50.4	56%

NO.2 40 × 40

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	25	6.4/5.0	40 × 40	1007 × 4047	12.3	67%
	30	6.6/5.0	40 × 40	1007 × 4047 1247 × 4047	14.6	67%
	40	7.0/5.0	40 × 40	1007 × 4047 1247 × 4047	19.2	67%



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Molded Grating In Details,Unit:mm

NO.3 50 × 50

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	12	6.0/5.0	50 × 50	1906 × 4012	4.8	82%
	13	6.0/5.0 Diamond	50 × 50	1215 × 4115	6	82%
	15	6.2/5.0	50.8 × 50.8	1220 × 4000	7	78%
	25	6.4/5.0	50.8 × 50.8	1524 × 4000	11.5	78%
	40	7.0/5.0	50.8 × 50.8	1227 × 5040	15.9	80%
	50	7.0/5.0	50.8 × 50.8	1788 × 4531	20.8	78%
	50		50.8 × 50.8	1227 × 4980		
	50		50.8 × 50.8	1524 × 4020		
	50	8.0/6.0	50.8 × 50.8	1226 × 4022	23.7	78%
	63	8.3/6.0	49.2 × 49.2	1242 × 4289	28.8	78%

NO.4 83 × 83

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	25	6.5/5.0	83.3 × 83.3	1007 × 4007	5.8	84%
	40	7.0/5.0	83.3 × 83.3	1007 × 4007 1507 × 4088	9.5	84%

NO.5 12.7 × 12.7 / 38.1 × 38.1

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	30	7.5&4.5/5.0	12.7 × 12.7 /38.1 × 38.1	1220 × 3660	22	30%

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NO.6 13 × 13 / 40 × 40

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	22	6.4 & 4.5 / 5.0	13.3 × 13.3 / 40 × 40	1527 × 4047	14.3	30%
	25	6.5 & 4.5 / 5.0	13.3 × 13.3 / 40 × 40	1247 × 4047	15.2	30%
	30	7.0 & 4.5 / 5.0	13.3 × 13.3 / 40 × 40	1527 × 4047	19.6	30%
	38	7.0 & 4.5 / 5.0	13.3 × 13.3 / 40 × 40	1527 × 4047	20.3	30%

NO.7 19 × 19 / 38 × 38

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	25	6.4 / 5.0	19.05 × 19.05 / 38.1 × 38.1	1220 × 4000	16.8	40%
	30	6.5 / 5.0	19.05 × 19.05 / 38.1 × 38.1	1220 × 3660	17.5	40%
	38	7.0 / 5.0	19.05 × 19.05 / 38.1 × 38.1	1220 × 4000	23.5	40%
				1524 × 4000		

NO.8 20 × 20 / 40 × 40

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	14	6.4 / 5.0	20 × 20 / 40 × 40	1247 × 4047	10.5	42%
	22	6.4 / 5.0	20 × 20 / 40 × 40	1527 × 4047	15.2	42%
	30	6.5 / 5.0	20 × 20 / 40 × 40	1247 × 4047	18.3	42%
				1007 × 4047		
	40	7.0 / 5.0	20 × 20 / 40 × 40	1527 × 4047	23.7	42%



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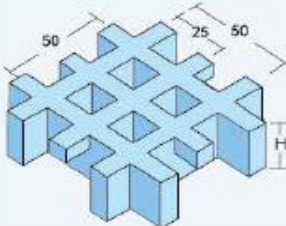
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Molded Grating In Details, Unit:mm

NO.9 25 × 25 / 50 × 50

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	50	7.5 & 7.0 / 5.0	25.4 × 25.4 / 50.8 × 50.8	1532 × 4022	28.5	55%

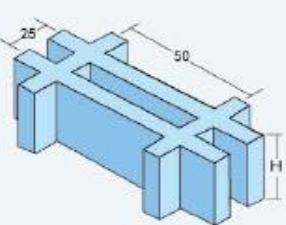
NO.10 26 × 26 / 52 × 52

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	38	7.0 / 5.0	26 × 26 / 52 × 52	1254 × 4013	19.5	60%
	25	7.0 / 5.0	26 × 26 / 52 × 52	1203 × 4011	13.1	60%

NO.11 38.1 × 152.4

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	38	7.0 / 5.0 Stair Tread	38.1 × 152.4	580 × 3660	17	65%

NO.12 25 × 50

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	38	15.0 / 12.5 Heavy Duty	25.4 × 50.8	1275 × 1825	43.5	40%
	38	12.0 / 9.0 Heavy Duty	25.4 × 50.8	1220 × 1830	32.4	48%
	50	12.0 / 9.0 Heavy Duty	25.4 × 50.8	1220 × 1830	41	48%
	50	15.0 / 12.5 Heavy Duty	25.4 × 50.8	1275 × 1825	54.7	40%

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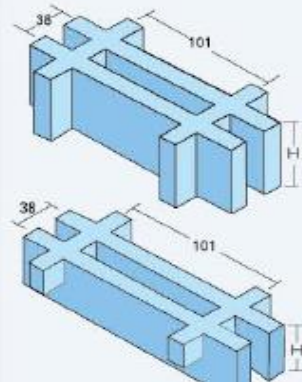
NO.13 25 × 100

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	25	6.5/5.0 Width	25.4 × 101.6	1220 × 3660 1230 × 4025	13.83	67%
	25	7.0/5.5 Width	25 × 100	1007 × 3007	13	67%
	25	9.5/8.0 Heavy Duty	25.4 × 101.6	1220 × 3660	19.5	52%
	25	10.5/8.0 Heavy Duty	25.4 × 101.6	921 × 3050	18.6	50%
	30	7.0/5.5	25 × 100	1007 × 3007	15.6	67%
	38	8.0/6.0 Width	25.4 × 101.6	1220 × 3660	22.5	62%

NO.14 25 × 101

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	38	15.0/5.0 Moltruded Grating	25.4 × 101.6	1220 × 3660	21	62%

NO.15 38 × 101

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	38	8.0/6.0	38.1 × 101.6	1220 × 3660	16.4	65%
	50	8.0/5.0 Moltruded Grating	38.1 × 101.6	1220 × 3660	15.3	62%

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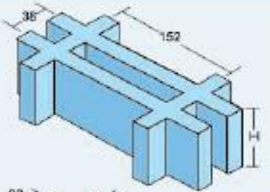
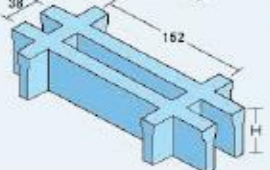
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Molded Grating In Details, Unit:mm

NO.16 25 × 152

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	38	9.0/6.5	25.4 × 152.4	1220 × 3660	22.5	63%

NO.17 38 × 152

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	38	8.0/6.0 Length	38.1 × 152.4	1524 × 4000	16	67%
	38	15.0/8.0 Type T	38.1 × 152.4	1220 × 3660	18.6	62%

NO.18 60 × 220

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	40	6.3/5.0	59.3 × 223	1788 × 2238	8.8	67%

NO.19 100 × 200

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx.Weight (kgs/m ²)	Open Area (%)
	60	12.0/9.0	98.32 × 200.6	1015 × 3060	17.1	85%



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NO.20 100 × 100

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx. Weight (kgs/m ²)	Open Area (%)
	40	7.0/5.0	98.83 × 98.83	1488 × 1488	8.5	88%

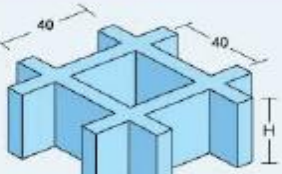
NO.21 38.1 × 38.1

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx. Weight (kgs/m ²)	Open Area (%)
	35	10.5/9.0 Phenolic Grating (Heavy Duty)	38.1 × 38.1	1226 × 3667	29.4	56%
	38	7.0/5.0 Phenolic Grating	38.1 × 38.1	1226 × 4007	19.5	68%
	50	8.0/6.0 Phenolic Grating	50.8 × 50.8	1531 × 4021	23.7	78%

NO.22 The cooling rack

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx. Weight (kgs/m ²)	Open Area (%)
	6	24.2R/10.0	35.6 × 101.6	1950 × 2362	3.5	62%

NO.23 40 × 40

Photo	Height (mm)	Bearing Bar Thickness (Top/Bottom)	Mesh Size (mm)	Panel Size (mm)	Approx. Weight (kgs/m ²)	Open Area (%)
	40	7.0/5.0	40 × 40	1250 × 3924 (247 × 487)	19.2	67%



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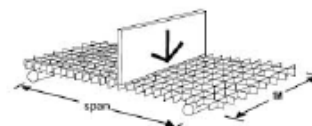
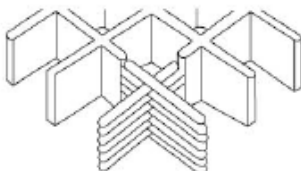
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MOULDED GRATING LOAD TABLES



Concentrated line load tables-deflection in millimeters

H20 Mesh Size 38.1 × 38.1

	Bearing Bar Thickness (Top/Bottom)
	6.0/5.0
	Mesh Size
	38.1
	Open Area
	78%
	Approx. Weight
	9.80kg/ m ²
Panel Size: 1220×4000, 1220×3660, 1220×2440, 915×3050 bidirectional loading	

Deflection Span	kgs/m					Ultimate Load
	75	150	300	450	750	
300	0.254	0.508	1.016	1.524	2.54	4470
450	0.762	1.524	3.302	4.826	8.128	2980
600	1.778	3.81	7.62	11.176	---	2235
750	2.794	5.588	11.43	---	---	1788
900	5.334	10.668	---	---	---	1490

H25 Mesh Size 38.1 × 38.1

	Bearing Bar Thickness (Top/Bottom)
	6.4/5.0
	Mesh Size
	38.1
	Open Area
	68%
	Approx. Weight
	12.3kg/ m ²
Panel Size: 1524×4000, 1220×4000, 1220×3660, 1220×2440, 915×3050, bidirectional loading	

Deflection Span	kgs/m						Break Point
	75	150	300	450	600	750	
450	0.559	1.146	2.159	3.073	4.115	4.75	3910
600	0.864	1.702	3.505	5.156	6.706	8.179	2924
900	2.896	5.918	12.116	18.44	---	---	1948
1200	5.715	11.633	---	---	---	---	1461

H30 Mesh Size 38.1 × 38.1

	Bearing Bar Thickness (Top/Bottom)
	6.5/5.0
	Mesh Size
	38.1
	Open Area
	68%
	Approx. Weight
	14.60kg/ m ²
Panel Size: 1524×4000, 1220×4000, 1220×3660, 1000×4090, 1220×2440, 915×3050, bidirectional loading	

Deflection Span	kgs/m						Ultimate Load
	75	150	300	450	750	1500	
300	<0.254	<0.254	0.254	0.508	0.762	1.524	9923.4
450	0.254	0.508	1.016	1.524	2.54	---	4827.6
600	0.508	1.27	2.286	3.556	5.842	---	4112.4
750	1.27	2.54	4.826	7.366	12.446	---	3173.7
900	1.778	3.81	7.62	11.43	---	---	2637.3

H38 Mesh Size 38.1 × 38.1

	Bearing Bar Thickness (Top/Bottom)
	7.0/5.0
	Mesh Size
	38.1
	Open Area
	68%
	Approx. Weight
	19.50kg/ m ²
Panel Size: 1524×4000, 1524×3050, 1220×4000, 1220×3660, 1220×2440, 915×3050, bidirectional loading	

Deflection Span	kgs/m						Break Point
	75	150	300	450	600	750	
300	0.279	0.356	0.483	0.61	0.762	0.889	17116
600	0.356	0.66	1.245	1.85	2.464	3.073	8718
900	0.864	1.803	3.683	5.563	7.417	9.296	5817
1200	2.261	4.749	9.677	14.63	19.583	---	3755



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Uniformed load tables-deflection in millimeters



Concentrated full panel load tables-deflection in millimeters

Deflection Span	kgs/ m ²						Ultimate Load
	350	500	750	1000	1500	2500	
300	<0.254	0.254	0.508	0.508	1.016	1.524	29280
450	1.016	1.524	2.286	3.048	4.572	7.62	12980.8
600	3.084	4.572	7.112	9.398	---	---	7320
750	5.842	8.89	---	---	---	---	4084.8
900	---	---	---	---	---	---	3226.8

Note:

Load tables are for commonly used gratings and for reference only.

Deflection Span	kgs/ m ²						
	240	480	980	1450	2450	3650	4880
450	0.66	1.092	1.93	2.769	4.47	6.579	---
600	1.118	2.108	4.14	6.172	10.211	15.265	---
750	2.667	5.387	10.82	16.28	---	---	---
900	5.537	11.176	21.717	---	---	---	---

Deflection Span	kgs						
	150	370	750	1120	1500	2200	2980
450	0.254	0.686	1.55	2.159	2.667	4.166	5.232
600	0.734	1.651	3.175	4.623	6.121	9.119	12.116
900	1.778	4.445	8.814	13.157	---	---	---
1200	2.946	7.544	15.062	---	---	---	---

Deflection Span	kgs/ m ²						Ultimate Load
	350	500	750	1000	1500	2500	
300	<0.254	<0.254	<0.254	<0.254	0.254	0.508	32500.8
450	0.254	0.508	0.762	1.016	1.524	2.286	21661.2
600	1.016	1.524	2.286	2.794	4.318	7.366	12980.8
750	2.54	3.81	5.842	7.62	11.684	---	8296
900	4.572	7.112	10.668	---	---	---	5758.4

Deflection Span	kgs				
	25	45	100	150	250
600	<0.254	0.254	0.762	1.016	1.778
750	0.254	0.762	1.27	2.032	3.302
900	0.508	0.762	1.778	2.54	4.064
1050	0.762	1.524	2.794	43.18	7.112
1200	1.016	1.778	3.81	5.588	9.398

Deflection Span	kgs/ m ²						
	240	480	980	1450	2450	3650	4880
300	0.254	0.305	0.381	0.457	0.635	0.838	---
600	0.432	0.813	1.549	2.311	3.8354	5.74	---
900	1.702	3.454	6.959	10.465	17.475	---	---
1200	5.969	12.167	24.511	---	---	---	---

Deflection Span	kgs						
	150	370	750	1120	1500	2200	2980
450	0.203	0.406	0.711	0.889	1.143	1.676	2.21
600	0.356	0.889	1.499	1.905	2.413	3.531	4.267
900	0.61	1.5	2.9	4.14	5.41	7.95	10.566
1200	0.914	2.388	4.699	6.96	9.195	13.665	---

All work Completed is in Accordance with ISO -9001



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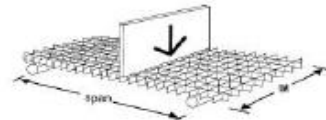
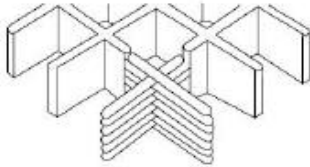
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Concentrated line load tables-deflection in millimeters

H50 Mesh Size 50×50

	Bearing Bar Thickness (Top/Bottom)
	8.0/6.0
	Mesh Size
	50
	Open Area
	78%
	Approx. Weight
	23.7 kg/m ²
Panel Size: 1788×4531 1226×4022 1524×4000 bidirectional loading	

Deflection Span	kgs/m						Break Point
	75	150	300	450	600	750	
300	0.279	0.305	0.406	0.483	0.635	1.041	21727
600	0.356	0.508	0.813	1.128	1.753	3.327	11713
900	0.508	1.118	2.235	3.2	5.156	10.058	7780
1200	0.914	1.93	3.937	5.918	9.957	—	5834

H25 Mesh Size 25×100

	Bearing Bar Thickness (Top/Bottom)
	7.0/5.5
	Mesh Size
	25
	Open Area
	67%
	Approx. Weight
	13.0 kg/m ²
Panel Size: 1007×3007 run width direction	

Deflection Span	kgs/m						Break Point
	75	150	300	450	600	750	
300	0.33	0.483	0.737	0.991	1.27	1.52	9442
600	0.864	1.727	3.454	5.182	6.909	8.636	4305
750	1.397	2.718	5.105	7.163	9.55	11.938	3589
900	2.413	4.724	8.814	12.369	16.51	20.625	3216

H25 Mesh Size 25×100

Heavy Duty

	Bearing Bar Thickness (Top/Bottom)
	9.5/8.0
	Mesh Size
	25
	Open Area
	52%
	Approx. Weight
	19.5 kg/m ²
Panel Size: 1220×3660, 1220×2440, 915×3050 run width direction	

Deflection Span	kgs/m						Ultimate Load
	75	150	300	450	750	1500	
300	<0.254	0.254	0.762	1.016	1.27	1.524	10057.5
450	0.508	0.762	1.778	2.54	3.302	4.318	7263.75
600	0.762	1.778	3.556	5.08	6.858	—	5773.75
750	1.524	3.048	6.096	9.144	11.938	—	4842.5
900	2.286	4.826	9.652	—	—	—	4172
1050	3.556	7.112	—	—	—	—	3687.75
1200	5.08	10.16	—	—	—	—	3501.50

H38 Mesh Size 38×152

	Bearing Bar Thickness (Top/Bottom)
	8.0/6.0
	Mesh Size
	38
	Open Area
	67%
	Approx. Weight
	16 kg/m ²
Panel Size: 1524×4050, 1220×3660, 1220×2440, 915×3050, run length direction / run width direction	

Deflection Span	kgs/m						Ultimate Load
	75	150	300	450	600	750	
300	<0.254	<0.254	0.254	0.508	0.508	0.762	12627.75
450	<0.254	0.254	0.762	1.016	1.524	1.778	9945.75
600	0.254	0.762	1.524	2.286	3.046	3.81	8232.25
750	0.762	1.27	2.794	4.064	5.334	6.604	7040.25
900	1.016	2.286	4.318	6.64	8.636	10.92	6146.25
1050	1.524	3.302	6.604	9.906	—	—	5438.5
1200	2.286	4.826	9.652	—	—	—	5140.5



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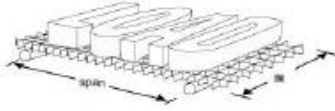
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Uniformed load tables-deflection in millimeters



Concentrated full panel load tables-deflection in millimeters

Deflection	kgs/ m ²						
Span	240	480	980	1450	2450	3650	4880
300	0.254	0.279	0.33	0.381	0.483	0.737	---
600	0.381	0.584	0.965	1.372	2.134	4.115	---
900	1.194	2.108	3.937	5.766	9.449	18.593	---
1200	2.413	4.928	9.957	14.961	---	---	---

Deflection	kgs						
Span	300	600	900	1500	2200	2980	3700
450	0.254	0.33	0.467	0.711	1.016	1.346	1.7018
600	0.381	0.8636	1.1176	1.524	2.032	2.54	3.1242
900	0.6604	1.2192	1.778	2.896	4.191	5.512	6.7564
1200	0.9398	1.8542	2.7432	4.547	6.807	9.271	11.252

Deflection	kgs/ m ²						
Span	240	480	980	1450	2450	3650	4880
300	0.279	0.381	0.533	0.711	1.041	---	1.905
600	0.914	1.854	3.683	5.537	9.22	---	18.466
900	3.632	6.6	12.573	18.542	---	---	---
1050	8.007	14.884	---	---	---	---	---

Deflection	kgs						
Span	150	370	750	1120	1500	2200	2980
450	0.279	0.686	1.448	2.209	2.718	4.191	5.41
600	0.711	1.524	3.531	4.623	6.02	9.22	12.294
900	1.626	3.962	7.823	11.811	---	---	---
1200	---	---	---	---	---	---	---

Deflection	kgs/ m ²						Ultimate Load
Span	250	350	300	750	1000	1500	
300	<0.254	<0.254	<0.254	0.254	0.508	0.508	32940
450	0.508	0.508	0.762	1.27	1.524	2.286	18910
600	1.016	1.27	2.032	3.302	4.318	6.35	15860
750	2.286	3.048	4.572	7.112	9.398	---	12688
900	4.572	5.842	8.89	---	---	---	9110.96
1050	7.874	10.16	---	---	---	---	6900.32
1200	12.7	---	---	---	---	---	5734

Deflection	kgs						
Span	25	45	100	150	250	450	1000
250	<0.254	<0.254	0.254	0.508	0.762	1.27	2.54
400	<0.254	0.254	0.762	1.016	1.524	3.302	12.192
550	0.254	0.508	1.27	1.778	3.048	6.096	---
700	0.508	1.016	2.032	3.048	5.08	10.16	---
850	0.762	1.524	3.048	4.572	7.62	---	---
1000	1.016	2.032	3.81	5.874	9.652	---	---
1150	12.7	2.54	5.334	7.874	---	---	---

Deflection	kgs/ m ²						Ultimate Load
Span	350	450	750	1000	1500	2500	
300	<0.254	<0.254	<0.254	0.254	0.254	0.508	41358
450	<0.254	0.254	0.508	0.762	1.016	1.778	26962
600	0.508	1.016	1.27	1.778	2.794	4.572	21716
750	1027	2.032	3.048	4.064	6.35	---	18446.4
900	2.54	4.064	6.096	8.128	12.192	---	13420
1050	4.572	7.112	10.668	---	---	---	10179.68
1200	7.874	11.938	---	---	---	---	8418

Deflection	kgs						
Span	25	45	100	150	250	450	1000
250	<0.254	<0.254	<0.254	<0.254	0.254	0.762	1.27
400	<0.254	0.254	0.508	0.762	1.016	2.032	4.318
550	<0.254	0.254	0.762	1.016	1.778	3.302	6.858
700	0.254	0.508	1.016	1.524	2.54	5.334	10.414
850	0.508	0.762	1.524	2.286	4.064	7.874	---
1000	0.508	1.016	2.286	3.302	5.588	11.176	---
1150	0.762	1.524	3.048	4.572	7.366	---	---



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CHEMICAL RESISTANCE CHART

CHEMICAL ENVIRONMENT	TYPE"VEFR-25"		TYPE"IFR-25"	
	%CONCENTRATION	MAX.OPER.TEMP F/C	%CONCENTRATION	MAX.OPER.TEMP F/C
Acetic Acid	50	180/82	50	125/52
Aluminum Hydroxide	100	180/82	100	160/71
Ammonium Chloride	All	210/99	All	170/77
Ammonium Hydroxide	28	100/38	28	N/R
Ammonium Bicarbonate	50	160/70	15	125/52
Ammonium Sulfate	ALL	210/99	ALL	170/77
Benzene	N/R	N/R	N/R	N/R
Benzoic Acid	SAT	210/99	SAT	150/66
Borax	SAT	210/99	SAT	170/77
Calcaum Carbonate	ALL	180/82	ALL	170/77
Calcium Nitrate	ALL	210/99	ALL	180/82
Carbon Tetrachloride	100	150/65	N/R	N/R
Chlorine, Dry Gas	-	210/99	-	140/60
Chlorine Water	SAT	200/93	SAT	80/27
Chromic Acid	10	150/65	5	70/21
Citric Acid	ALL	210/99	ALL	170/77
Copper Chloride	ALL	210/99	ALL	170/77
Copper Cyanide	ALL	210/99	ALL	170/77
Copper Nitrate	ALL	210/99	ALL	170/77
Ethanol	50	100/38	50	75/24
Ethylene Glycol	100	200/93	100	90/32
Ferric Chloride	ALL	210/99	ALL	170/77
Ferrous Chloride	ALL	210/99	ALL	170/77
Formaldehyde	ALL	150/65	50	75/24
Gasoline	100	180/82	100	80/27
Glucose	100	210/99	100	170/77
Glycerine	100	210/99	100	150/66
Hydrobromic Acid	50	150/65	50	120/49
Hydrochloric Acid	37	150/65	37	75/24
Hydrogen Peroxide	30	150/65	5	100/38
Lactic Acid	ALL	210/99	ALL	170/77
Lithium Chloride	SAT	210/99	SAT	150/66

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Magnesium Chloride	ALL	210/99	ALL	170/77
Magnesium Nitrate	ALL	210/99	ALL	140/60
Magnesium Sulfate	ALL	210/99	ALL	170/77
Mercuric Chloride	100	210/99	100	150/66
Mercurous Chloride	ALL	210/99	ALL	140/60
Nickel Chloride	ALL	210/99	ALL	170/77
Nickel Sulfate	ALL	210/99	ALL	170/77
Nitric Acid	20	120/49	20	70/21
Oxalic Acid	ALL	210/99	ALL	75/24
Perchloric Acid	30	100/38	N/R	N/R
Phosphoric Acid	100	210/99	100	120/49
Potassium Chloride	ALL	210/99	ALL	170/77
Potassium Dichromate	ALL	210/99	ALL	170/77
Potassium Nitrate	ALL	210/99	ALL	170/77
Potassium Sulfate	ALL	210/99	ALL	170/77
Propylene Glycol	ALL	210/99	ALL	170/77
Sodium Acetate	ALL	210/99	ALL	160/71
Sodium Bisulfate	ALL	210/99	ALL	170/77
Sodium Bromide	ALL	210/99	ALL	170/77
Sodium Cyanide	ALL	210/99	ALL	170/77
Sodium Hydroxide	25	180/82	N/R	N/R
Sodium Nitrate	ALL	210/99	ALL	170/77
Sodium Sulfate	ALL	210/99	ALL	170/77
Stannic Chloride	ALL	210/99	ALL	160/71
Sulfuric Acid	75	100/38	25	75/24
Tartaric Acid	ALL	210/99	ALL	170/77
Vinegar	100	210/99	100	170/77
Water, Distilled	100	180/82	100	170/77
Zinc Nitrate	ALL	210/99	ALL	170/77
Zinc Sulfate	ALL	210/99	ALL	170/77

ALL...ALL Concentrations SAT...Saturated Solution N/R...Not Recommended...No Information Available.



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Resin Systems Of FRP Molded Grating

Resin Type	Resin Base	Description	Corrosion Resistance	Flame Spread Rating ASTM E84	Max. Oper. Temp
Type VEFR-25	Vinyl Ester	Superior Corrosion Resistance and Fire Retardant	Excellent	Class 1, 25 or less	230°F (110°C)
Type VEFR-10	Vinyl Ester	Superior Corrosion Resistance and Enhanced Fire Retardant	Excellent	Class 1, 10 or less	230°F (110°C)
Type IFR-25	Isophthalic Polyester	Industrial Grade Corrosion Resistance and Fire Retardant	Very Good	Class 1, 25 or less	221°F (105°C)
Type IFR-10	Isophthalic Polyester	Industrial Grade Corrosion Resistance and Extra Fire Retardant	Very Good	Class 1, 10 or less	221°F (105°C)
Type FG-30	Isophthalic Polyester	Food Grade Corrosion Resistance and Fire Retardant	Very Good	Class 1, 30 or less	221°F (105°C)
Type CFR-25	Ortho	Moderate Corrosion Resistance and Fire Retardant	Moderate	Class 1, 25 or less	212°F (100°C)
Type O-AN	Ortho	Moderate Corrosion Resistance	Moderate	No	212°F (100°C)
TypeMP-5	Phenolic resin	Low Smoke and Superior Fire Resistance	Very Good	Class 1, 5 or less	356°F (180°C)

Type Of Fiberglass Roving

Code Name	Type	Occasion Applicable
E	E-glass	High strength and high corrosion required

Type Of Filler

Code Name	Type	Occasion Applicable
ATH	Aluminium Hydroxide	Fire resistant, smoke suppression and high corrosion required
PR	No Filler,Pure Resin	High corrosion required

Applications Of FRP Molded Grating

- Trench cover
- Double deck floor
- Plank road
- Operation platform
- Platform around tank
- Offshore oil platforms
- Sewage treatment
- Boats and others





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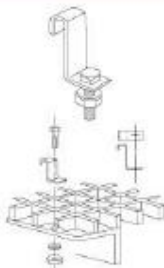
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Installation Of FRP Molded Grating

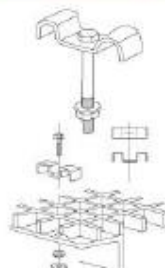
Powergrate offers specially designed clips and clip assemblies to fasten grating panels together and to secure them to support structures.

Installation Of Moded Grating



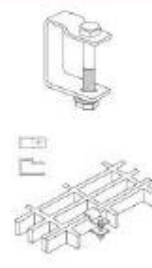
Type L

This lighter duty clip should be specified to hold one load bar to the support for lighter duty loads. It is available for FRP molded and pultruded gratings



Type M

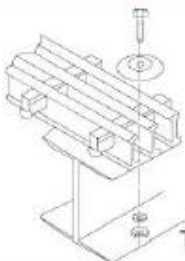
M clips or saddle clips clamp 2 FRP grating load bars to the support. This provides excellent holding capability and because of this, are recommended for stair treads and most FRP molded and pultruded gratings



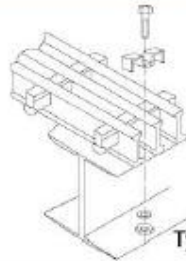
Type C

C clips were specifically designed to tie two panels of gratings together to minimize differential deflections when their joints fall between supports.

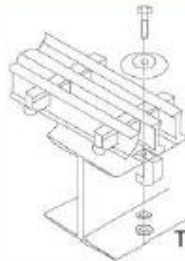
Installation Of Pultruded Grating



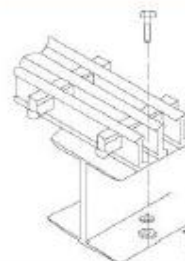
Type WP



Type MP



Type GP



Type PP

Please Note: The clip assemblies and clips referenced are made of Type 316 stainless grade steel and are those most commonly used for Powergrid® molded and pultruded grating products. Clip assemblies include all applicable hardware; single clips are also available.



■ Collect Of Mounting Accessories



M Clips

L Clips

C Clips

W Clips

Pawl Clips

G Clips(Part A&B)

J Clips

CSSM Clips (Part A&B)

T Clips

■ Real Examples Of Mounting Accessories

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SMC / BMC PRODUCTS AND HAND LAY UP PRODUCTS

Manhole Covers



Manhole Cover Type and Loading Chart

Type	Size	Max. Loading	Weight/Set	Application
LL	Customized	20KN	—	Green belts and alleys and venues that motor vehicles can not drive or park.
LH	247 x 487 x 45	30KN	5kg	Residential corridor and sidewalks
A	Φ 650 x H60	30KN	18kg	General urban road vehicle traffic and parking
B	Φ 700 x H80	130KN	25kg	Heavy vehicle traffic and parking of urban roads and highway



Fabricated Products



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