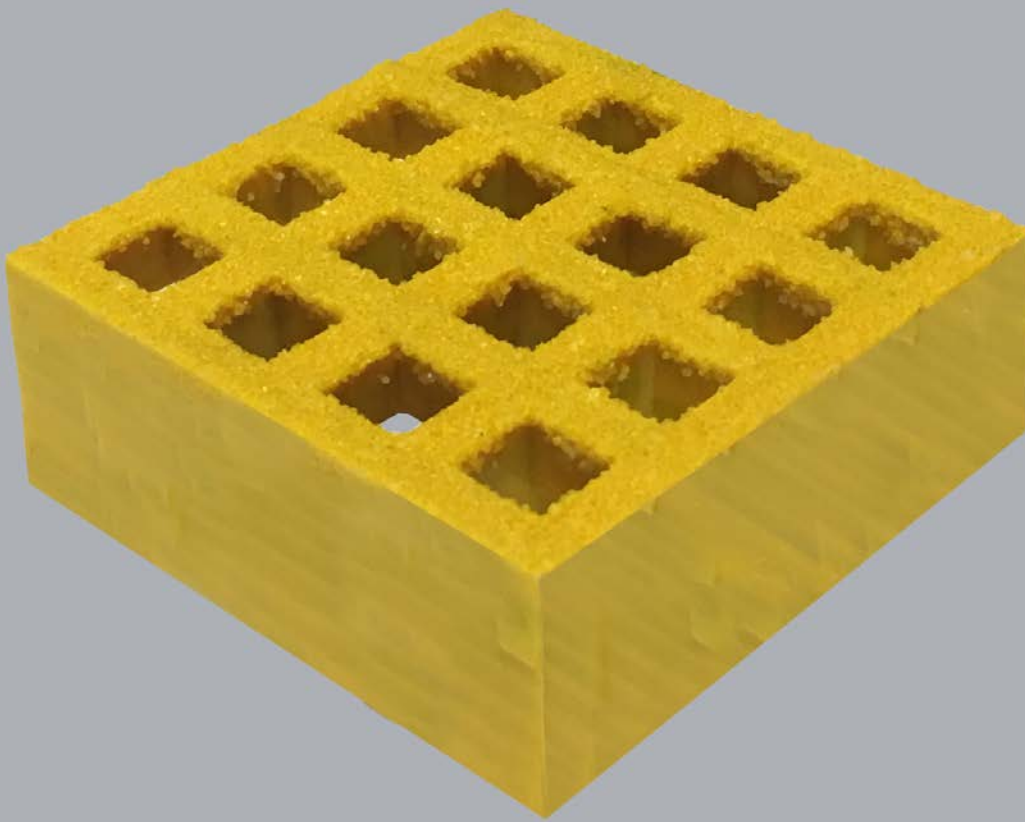


***Fibre*GRATING**

GRP Mini Mesh Grating



DESIGN

SUPPLY

FABRICATE

INSTALL



FibreGrid GRP Mini Mesh Grating panels are made from high quality GRP (glass reinforced plastic); to create a high performance open mesh flooring system.

Our Mini Mesh Grating is constructed using high grade chemical resistant Isophthalic Polyester resin. The resin will include a UV inhibitor and be fire retardant according to BS 476: Part 7 Class 2 rating (certificate available on request). The gratings shall have a grit top surface for superior hard wearing and anti slip qualities.

CHARACTERISTICS

- Extremely durable
- Impact resistant
- Anti slip surface
- Fire retardant
- Chemical resistant
- Corrosion resistant
- Lightweight
- Maintenance free
- Non-conductive
- Passes European Standard 15mm ball falling test

SUITABLE APPLICATIONS

- ✓ Walkways
- ✓ Gullies
- ✓ Trenches
- ✓ Cooling towers
- ✓ Overhead gantries
- ✓ Railway crossing points

TECHNICAL DATA

Description	High performance composite grating system
Top finish:	Post Cure Grit Finish
Stock colours:	Black, Stone, Grey, Yellow (any RAL or BS colour subject to extended lead time)
Stock depths:	14mm or 30mm (other sizes are available subject to lead time)
Panel sizes:	See enclosed list
Mesh patterns:	See enclosed list
Chemical resistance:	Made from Iso resin as standard. Different chemical resistance available, please refer to the enclosed list.

TECHNICAL DATA

Tolerances (including cut):	+/- 7mm width, length and diagonal
Depth tolerances:	+/- 1.5mm
Service temperatures:	-50°C to 105°C
Load capabilities:	See enclosed list
Design life:	10+ years (subject to traffic analysis)
General use:	Standard pedestrian traffic, suitable for industrial traffic
Standards: Fire:	Tested to BS 476: Part 7: 1997 Class 2

SLIP RESISTANCE VALUES

Measured using the Pendulum test method (WF rubber slider) - certificate available on request.

Top Surface	Dry Reading	Wet Reading
Grit Top	71	63

To ensure that the above slip resistance levels are maintained, the grating panels should be kept clean.

The UK Slip Resistance Group guide to slip resistance of a floor for able bodied pedestrians:

Four S Pendulum Value	Potential for Slip
Above 65	Extremely Low
35 - 65	Low
25 - 35	Moderate
25 & Below	High

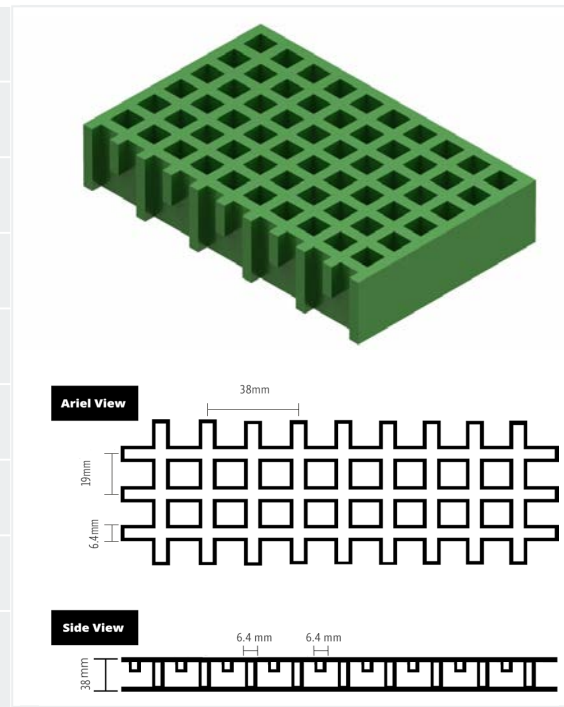
FABRICATION TIPS

A major advantage of FibreGrid GRP Grating is the ease of fabrication - sawing, grinding, drilling and machining is similar to working with wood, metals and plastics. If possible, perform fabrication "on-site" to increase accuracy. Be sure to allow for saw kerf (usually 4-6mm) when performing takeoffs and layouts. For a nice looking installation, cut panels so bars of adjoining panels are aligned and leave a solid bar on all sides.

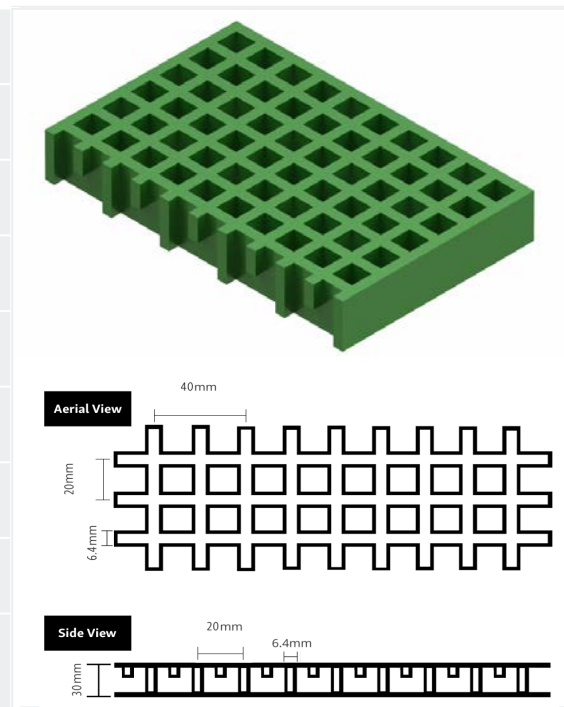
Provide a minimum of 38mm support around all edges. Use M-Clips spaced a maximum of every 1220mm, with a minimum of four clips per panel. Support panel security to prevent flex or shift during cutting. Mark cuts clearly and carefully. Avoid splitting 6.4mm and 8mm bars. Moulded construction allows "stubs" to support weight. Cut from the smooth side (bottom) of a grit top panel. Use even, steady pressure when cutting. Excessive pressure may cause heat and/or ragged edges. Replace dull blades to prevent heat buildup. For best results, sand all edges with open-grit sandpaper using light, even pressure to prevent wavy, uneven surfaces. Cut edges are to be sealed using a polyurethane yacht varnish. This is to prevent corrosive chemicals from reaching exposed glass fibres.

STOCKED GRATING SPECIFICATION/TYPES

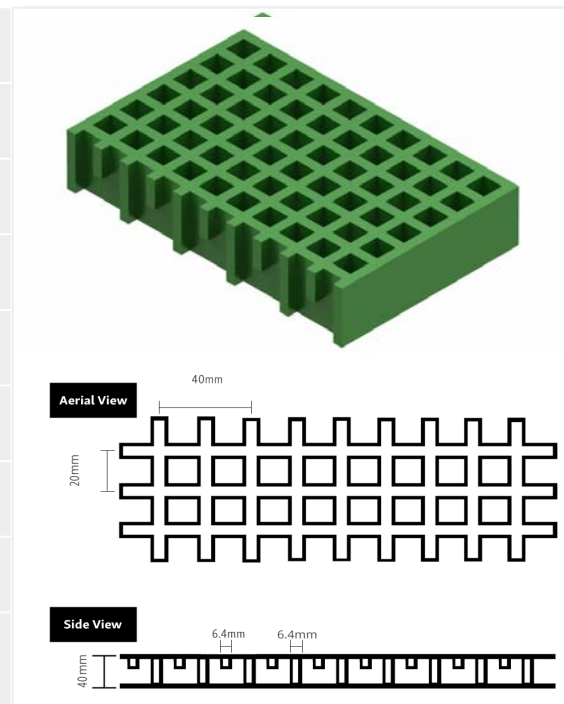
Grating Name	FG11
Grid Size	19X19 SM
Panel Depth	38
Load Bar Thickness	6.4
Load Bar Centres	19
No. Bars per foot	16
Open Area	42%
Approx. Weight	23.51 kg's/sq.m
Panel Sizes (mm)	3660 x 1220



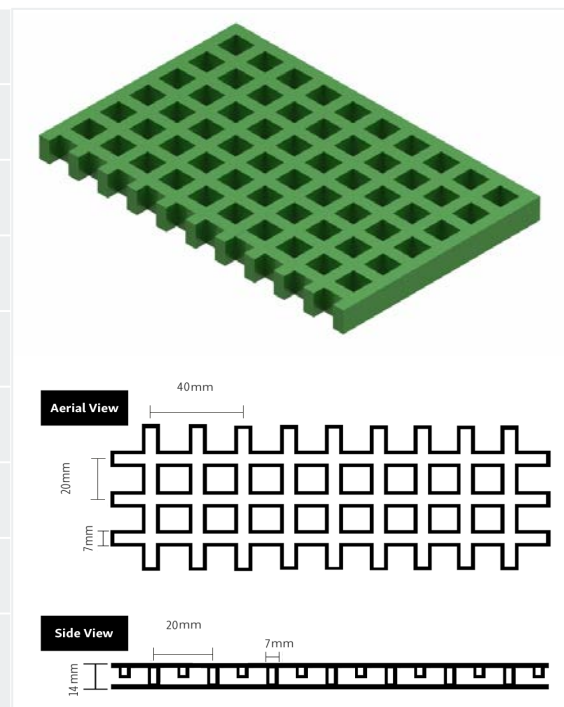
Grating Name	FG12
Grid Size	20X20 SM
Panel Depth	30
Load Bar Thickness	6.4
Load Bar Centres	20
No. Bars per foot	16
Open Area	42%
Approx. Weight	18.03 kg's/sq.m
Panel Sizes (mm)	3007 x 1007



Grating Name	FG13
Grid Size	20X20 SM
Panel Depth	40
Load Bar Thickness	6.4
Load Bar Centres	20
No. Bars per foot	16
Open Area	42%
Approx. Weight	23.7 kg's/sq.m
Panel Sizes (mm)	4007 x 1007, 3007 x 1007



Grating Name	FG18
Grid Size	20X20 SM
Panel Depth	14 - does not support load
Load Bar Thickness	7
Load Bar Centres	20
No. Bars per foot	16
Open Area	42%
Approx. Weight	10 kg's/sq.m
Panel Sizes (mm)	4007 x 1007, 4047 x 1247



UNIFORM LOAD TABLE - DEFLECTION (IN MM)

Uniform Load Table - Deflection In Millimetres										Max Recommended Load (kN/m²)
Clear Span (mm)	Style		Uniform Load (kN/m²)							
	Depth (mm)	Mesh (mm)	15	35	5	75	10	15	25	
300	38	19x19/38x38	<0.26	<0.26	0.32	0.46	0.60	0.88	1.39	85
	30	20x20/40x40	<0.26	<0.26	<0.26	<0.26	<0.26	0.32	0.55	67
	40		<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	0.43	89
450	38	19x19/38x38	<0.26	0.34	0.45	0.65	0.86	1.27	2.08	57
	30	20x20/40x40	<0.26	0.37	0.55	0.82	1.03	1.52	2.22	44
	40		<0.26	<0.26	0.40	0.60	0.81	1.14	1.69	60
600	38	19x19/38x38	0.42	0.91	1.30	1.92	2.48	3.71	6.16	24
	30	20x20/40x40	0.82	1.03	1.51	2.21	2.70	4.16	7.09	19
	40		0.62	0.77	1.14	1.68	2.03	3.13	5.33	25
750	38	19x19/38x38	0.53	1.13	1.62	2.40	3.13	4.65	7.71	17
	30	20x20/40x40	1.06	2.48	3.70	5.51	7.34	-	-	13
	40		0.82	1.86	2.78	4.15	5.50	8.20	-	18
900	38	19x19/38x38	1.94	4.66	6.19	9.18	-	-	-	7
	30	20x20/40x40	2.10	4.42	7.06	10.36	-	-	-	6
	40		1.59	3.36	5.40	7.77	10.47	-	-	8
1200	38	19x19/38x38	2.62	6.20	8.20	12.35	-	-	-	4
	30	20x20/40x40	5.71	7.92	11.34	-	-	-	-	3
	40		4.29	5.96	8.53	12.45	-	-	-	4

(1 kilonewton is equal to 101.97 kilograms)

POINT LOAD TABLE

Point Load Table - Deflection In Millimetres									
Clear Span (mm)	Style		Point Load (kN)						
	Depth (mm)	Mesh (mm)	15	3.5	5	7.5	10	15	25
300	38	19x19/38x38	-	-	0.32	0.57	0.75	0.95	1.50
	30	20x20/40x40	-	0.35	0.47	0.80	1.05	1.37	2.14
	40		-	0.25	0.35	0.58	0.76	1.02	1.60
450	38	19x19/38x38	-	0.36	0.50	0.88	1.20	1.54	2.44
	30	20x20/40x40	0.35	0.47	0.65	1.15	1.53	1.99	3.15
	40		0.25	0.34	0.53	0.86	1.16	1.49	2.37
600	38	19x19/38x38	0.42	0.91	1.30	1.91	2.47	3.70	6.15
	30	20x20/40x40	0.60	1.05	1.51	2.26	3.20	4.78	7.87
	40		0.52	0.79	1.14	1.68	2.46	3.38	5.59
750	38	19x19/38x38	0.73	1.68	2.12	3.40	5.00	7.00	-
	30	20x20/40x40	1.06	2.48	2.80	4.40	6.58	8.84	-
	40		0.82	1.86	2.39	3.67	5.10	6.78	-
900	38	19x19/38x38	1.29	2.69	3.87	5.38	7.50	10.25	-
	30	20x20/40x40	1.49	3.20	4.01	6.79	9.59	-	-
	40		1.34	2.67	3.28	4.88	7.69	10.08	-
1200	38	19x19/38x38	1.70	4.56	5.89	8.67	-	-	-
	30	20x20/40x40	2.18	5.46	7.72	-	-	-	-
	40		1.58	4.19	5.86	8.28	-	-	-

CHEMICAL RESISTANCE TABLE

Chemical	Iso concentration (%)	Temperature F/°C	Vinyl Ester concentration (%)	Temperature F/°C
Acetic Acid	50	125/50	50	185/85
Acetone	N/R	N/R	100	75/25
Aluminium Salts	All	160/70	All	195/90
Ammonium Chloride	All	160/70	All	185/85
Ammonium Hydroxide	28	N/R	28	100/38
Ammonium Carbonate	N/R	N/R	All	150/65
Ammonium Bicarbonate	15	125/50	All	125/50
Ammonium Nitrate	All	160/70	All	185/85
Benzene	N/R	N/R	100	140/60
Benzene Sulfuric Acid	25	115/45	All	195/90
Benzoic Acid	All	150/65	All	195/90
Calcium Hydroxide	25	150/65	35	185/85
Calcium Hypochlorite	All	150/65	All	185/85
Calcium Salts	All	150/65	All	195/90
Calcium Nitrate	All	185/85	All	195/90
Carbonic Acid	All	125/50	All	185/85
Carbon Tetrachloride	100	75/25	100	140/60
Chlorine Dioxide	N/R	140/60	All	140/60
Chlorine Water	All	150/65	All	125/50
Chromic Acid	100	75/25	10	185/85
Citric Acid	All	N/R	All	185/85
Copper Salts	All	150/65	All	185/85
Ethanol	50	75/25	50	85/30
Ferric Chloride	100	150/65	100	185/85
Ferric Salt	All	150/65	All	185/85
Glycerine	100	150/65	100	195/90
Heptane	100	105	100	125/50
Hydrobromic Acid	50	125/50	50	125/50
Hydrochloric Acid	37	75/25	37	95/35
Hydrocyanic Acid	All	150/65	All	185/85
Hydrogen Peroxide	10	75/25	30	125/50
Hypochlorides Acid	20	85/30	20	150/65
Lactic Acid	All	170/75	All	195/90
Lead Acetate	All	170/75	All	195/90
Lead Chloride	All	140/60	All	195/90
Lead Nitrate	All	150/65	All	195/90
Lime Slurry	All	150/65	All	185/85
Magnesium Salts	All	150/65	All	185/85
Maleic Acid	100	150/65	100	185/85
Mercury Chloride	100	150/65	100	185/85
Nickel Salts	All	170/75	All	195/90
Nitric Acid	20	75/25	20	105/40
Perchloric Acid	N/R	N/R	30	85/30
Phosphoric Acid	100	125/50	100	195/90
Potassium Salts	All	150/65	All	185/85
Ophthalmic Acid	-	-	All	185/85
Silver Nitrate	100	150/65	100	185/85
Sodium Hypochlorite	N/R	N/R	10	150/65
Sodium Salts	All	75/25	All	105/40
Stannic Chloride	All	160/70	All	195/90

Chemical	Iso concentration (%)	Temperature F/°C	Vinyl Ester concentration (%)	Temperature F/°C
Sulfuric Acid	50	N/R	50	185/85
Sulfuric Acid	25	75/25	25	195/90
Tartaric Acid	All	170/75	All	195/90
Trisodium Phosphate	N/R	N/R	All	170/65
Urea	All	125/50	All	140/60
Vinegar	100	170/75	100	195/90
Water, Distilled	100	170/75	100	195/90
Water, Sea	All	170/75	All	195/90
Zinc Salts	100	150/65	100	185/85

ALL = All concentrations N/R = Not Recommended SAT = Saturated Solution

The corrosion resistance data listed above is for general information only. Resin manufacturers have provided test data which indicates that the specific resin can withstand the corrosion conditions listed above. FibreGrid Limited believes the data to be true and accurate but no guarantee is expressed or implied as to specific performance. Testing for specific environments is recommended. Our responsibility for claims arising from breach of warranty, negligence or otherwise is limited to the purchase price of the material sold by FibreGrid Limited.

FITTING THE PANELS

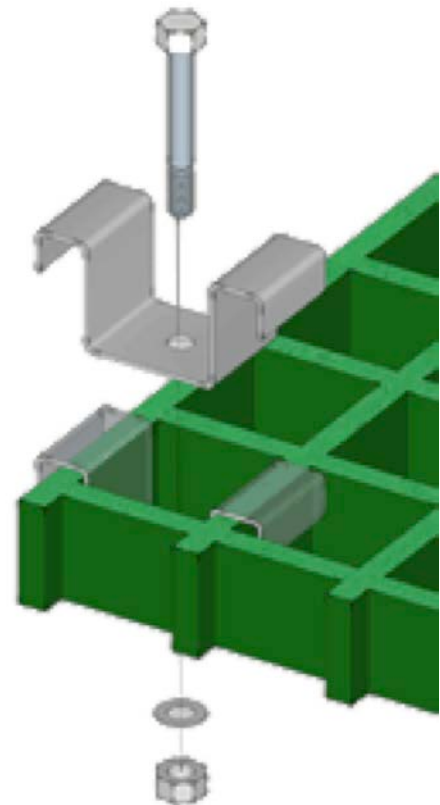
'M' Clips:

Set out where you will be positioning your grating clips, a guide would be in each corner and then every 500mm space.

Push the clips into the open mesh squares so that the clip sits neatly on the load bar(s) and the base of the clip is sitting close to the bottom of the grating panel.

If you are fixing directly onto the existing surface; pilot drill through the hole in the clip and into the substrate, then fix using the appropriate screw and plug.

If you are fixing into a support frame you will need to drill through the frame and then put through bolt fitting and tighten the washer and nut underneath the frame.





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