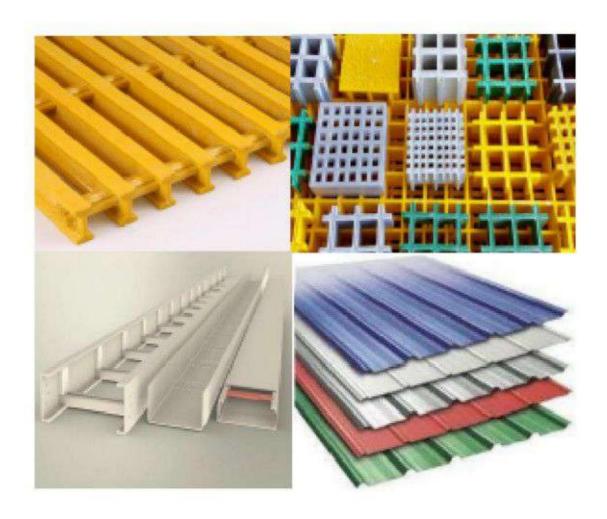
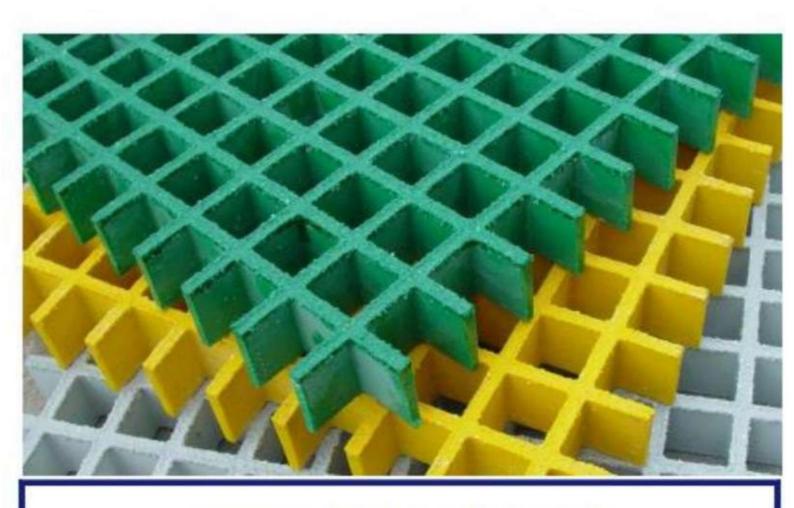
# FIBER MARINE





# FRP GRATINGS



WWW.FIBERMARINE.PK

# **APPLICATIONS**

- Flooring
- Platform
- Walkways
- · Assembly Lines
- Trench Covers
- Stairs
- Catwalks
- Ramps
- Greenhouse Shelving
- Pool Drainage
- Portable Building floors







# **MARKETS**

- Chemical
- Electronics
- Marine (including military vessels)
- Oil &Gas
- Petroleum Processing
- Plating
- Pulp and Paper
- Water/Wastewater
- Zoos/Aquariums
- Recreational Facilities







#### DESCRIPTION



Non-slip: Composite Grating's integral grit top su outstanding anti-slip protection for personnel in environments. The grit is embedded in the top surface of eto curing. This combination of integral construction, plu embedded grit, creates a long-lasting maximum anti-slip to



corrosion resistance: The ability of Composite grating is to deterioration from industrial chemicals and environmental it a logical and cost-effective alternative to carbon steel, a or other conventional materials. Whether the grating continuous submersion, splash, spills, fumes or gases, you that Composite grating will outperform other mediums.



Fire resistance: Composite Grating is available in various two of which meet the Class 1 flame spread rating of accordance with ASTM E-84 Tunnel Test Method. If a flam or less is required, it will be available in request.



**Non-Magnetic:** The non-magnetic properties allow grating to be used in sensitive installations where the inh properties of metallic grating would prove unsuitable.



Impact resistance: The impact resistance of Composite repeated deflection without permanent deformation. A of deflection can occur with loading. However, once the letter grating will return to its original shape, unlike metallic will remain deformed and require costly repairs or replace.



**Non-sparking:** The non-sparking qualities of Composite Grating systems are ideally suited for those installations where hydrogen or other combustible gases may be found and which may explode or cause a fire from sparks produced from accidental dropping of tools onto the grating.



Maintenance- Free: The use of Composite Grating virtually eliminates maintenance costs since painting is not required, and UV inhibitors protect against degradation from the sun.



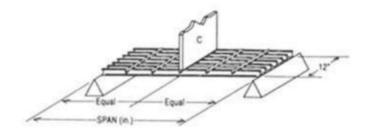
**Light-weight**: Composite Grating weighs about one-quarter as much as steel grating. Two men can easily handle full panels, without the need for hoists, pulleys or dollies. If the Composite Grating needs to be moved for cleaning, maintenance or utility access, there is less chance of back injuries. The lightweight design of the grating reduces installation and fabrication costs, weighing only 12 kilos per sq mtr for 25mm and 18 kilos per sq mtr for 38mm.



Raised-Floor: Many plant operations have a need for slightly elevated Floor Grating. Fixed or adjustable pedestals can be used for applications up to a height of 600mm. Plastic insert mouldings, which raise the Composite Grating panels 7mm off the floor, are ideal for allowing liquid drainage below the Grating.

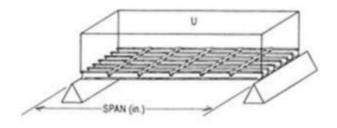


Cost-savings: In a review of costs, Composite grating showed significant savings over the use of stainless steel grating, and when consideration is given to 'life cycle costs', combining anti-slip benefits, the saving over the use of metal grating alternatives is quite considerable.



#### LOAD DESCRIPTION

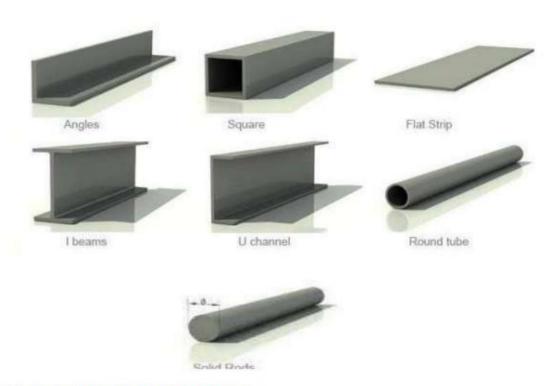
		Molded GRATING (METRIC UNITS) CONCENTRATED LOAD TABLES- DEFLECTION IN mm														MAXIMUM
SPAN IN (mm)	STYLE	LOAD IN KN/M OF WIDTH (CONCENTRATED)														
		3	5	8	10	13	15	20	25	39	50	60	70	80	90	(RECOMMI NDED)
400	38X38X25	1.2	2.0	3.2	4.1	5.3	6.1	8.1	10.1	15.8						9
	38X38X30	1.6	2.6	4.2	5.3	6.8	7.9	10.5	13.1							9
	38X38X38	0.6	0.9	1.5	1.9	2.4	2.8	3.7	4.7	7.3	9.3	11.2	13.1	14.9		19
	50X50X50	0.3	0.6	0.9	1.1	1.5	1.7	2.3	2.8	4.4	5.7	6.8	7.9	9.1	10.2	30
600	38X38X25	3.7	6.1	9.8	12.3	16.0										6
	38X38X30	4.8	8.0	12.8	16.0											6
	38X38X38	1.6	2.6	4.2	5.3	6.8	7.9	10.5	13.2							13
	50X50X50	0.9	1.5	2.4	3.0	3.9	4.5	6.1	7.6	11.8	15.1					21
800	38X38X25	8.5	14.2													4
	38X38X30	11.3														3
	38X38X38	3.5	5.9	9.5	11.8	15.4										10
	50X50X50	1.9	3.2	5.2	6.4	8.4	9.7	12.9								12
1000	38X38X38	6.9	11.4													7
	50X50X50	3.7	6.1	9.8	12.2	15.9										10
1200	38X38X38	11.8														5
	50X50X50	6.2	10.4													8
1400	50X50X50	9.8														5



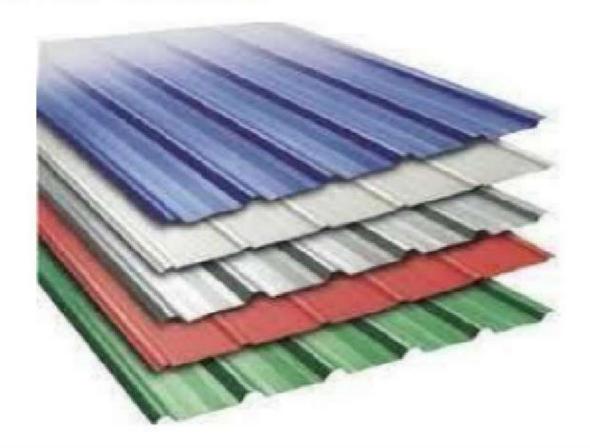
#### LOAD DESCRIPTION

		MOLDED GRATING (METRIC UNITS) UNIFORM LOAD TABLES-DEFLECTION IN mm														
SPAN IN (mm)	STYLE	LOAD IS KN/M2 WIDTH (UNIFORM)														MAXIMUM
		3	5	8	10	13	15	20	25	39	50	60	70	80	90	(RECOMM NDED)
400	38X38X25	0.3	0.5	0.8	1.0	1.3	1.5	2.0	2.5	4.0	5.1	6.1	7.1	8.1	9.1	48
	38X38X30	0.4	0.7	1.1	1.3	1.7	2.0	2.6	3.3	5.1	6.6	7.9	9.2	10.5	11.8	48
	38X38X38	0.1	0.2	0.4	0.5	0.6	0.7	0.9	1.2	1.8	2.3	2.8	3.3	3.7	4.2	100
	50X50X50	0.1	0.1	0.2	0.3	0.4	0.4	0.6	0.7	1.1	1.4	1.7	2.0	2.3	2.6	154
600	38X38X25	1.4	2.3	3.7	4.6	6.0	6.9	9.2	11.5							20
	38X38X30	1.8	3.2	4.8	6.0	7.8	9.0	12.0	15.0							20
	38X38X38	0.6	1.0	1.6	2.0	2.6	3.2	3.9	4.9	7.7	9.9	11.8	13.8	15.8		45
	50X50X50	0.3	0.6	0.9	1.1	1.5	1.7	2.3	2.8	4.4	5.7	6.8	8.0	9.1	10.2	73
800	38X38X25	4.3	7.1	11.	14.											10
	38X38X30	5.7	9.5	15. 1												9
	38X38X38	1.8	3.0	4.7	5.9	7.7	8.9	11.8	14.8							26
	50X50X50	0.1	0.2	0.3	0.3	0.4	0.5	0.7	0.8	1.3	1.6	2.0	2.3	2.6	2.9	35
1000	38X38X25	10. 4														6
	38X38X30	13. 9														5
	38X38X38	4.3	7.1	11. 4	14. 3											14
	50X50X50	2.3	3.8	6.1	7.7	9.9	11.5	15.3								21
1200	38X38X38	8.9	14.													9
	50X50X50	4.7	7.8	12. 5	15. 6											14
1400	50X50X50	8.5	14.													8

#### **FRP PROFILES:**



#### **FRP ROOFING SHEETS:**



#### WWW.FIBERMARINE.PK

#### FIBERGLASS TROLLEYS:



#### FIBERGLASS BOATS:



WWW.FIBERMARINE.PK

#### FIBEGLASS RAW MATERIAL:





WWW.FIBERMARINE.PK

## **Fiberglass SMC Tanks:**

Solid molded compound tanks are made from FRP reinforced SMC panels, allowing user to build any desired capacity of tank by simply assembling the panels. These tanks can be as small as 0.125 cubic meter to as large as 1000 cubic meters.

One of the advantage of these tank is easy transportation and portability from one place to other, as the panels can be easily assembled at site.





Following are the available panel size in SMC tanks:

- 1 meter x 1 meter
- 1 meter x 0.5 meter
- 0.5 meter x 0.5 meter



These tanks are used to store water in small or large quantity can be at school, hospital, homes, residential complex or even industries that needs large water reserves.

As many industries in Pakistan and especially Karachi face water shortage issues, they can even use it to harvest and store rain water.

In industrial areas near Karachi port and sea with humid environment these tanks are ideal, as they are corrosion and rust free and have long life in outdoor environments.

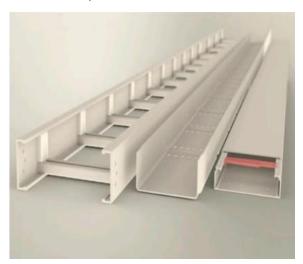
These tanks come with internal accessories like ladder, flange, etc. And external accessories like nut bolts, flanges and seals.

## **Cable trays:**

In any warehouse or factory the backbone of all tasks is electrical supply. Majorly to distribute electrical and other network, cables are spread throughout the facility.

As most commercial works are done in PEB shed that used open cable tray mounted on walls to arrange network of cables, these cable trays itself are designed to last and be maintenance free.

FRP cable trays offer the optimal solutions in terms of maintenance free, and



Shock proof and can last year's even in an exposed environment.





# Pultruded FiberglassRailings,Staircase & Ladder

Being made completely from fiberglass they are ideal for lightweight structures even in the most humid and acid fumed environment as they are resistant to rust and fire.





### **SMC Manhole covers**

Cast metal manhole covers do the job under heavy duty traffic passes, as long as 12 wheelers truck can pass easily. But the problems are there limited life when exposed to water and threat to be stole.

This create the need for FRP Solid Molded manhole covers, which gets rock solid when compressed and cured under hydraulic pressure, that fiberglass binds it maximum reinforcement to the resin filler, resulting in the high strength and long lasting, corrosion free coverings for manhole.



# **Electrical panel box**

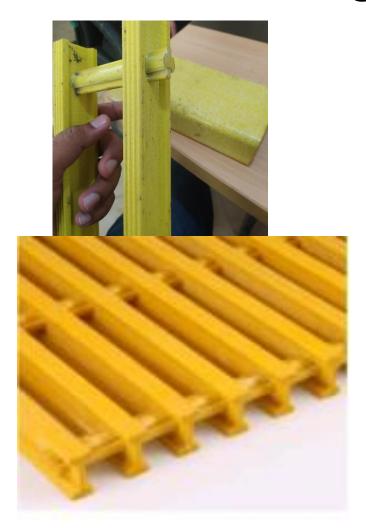
Available in multiple sizes for all electrical main circuit and outdoor supply meter housing boxes, provides excellent safety to electrical breakers and wires.







# **Pultruded Gratings**

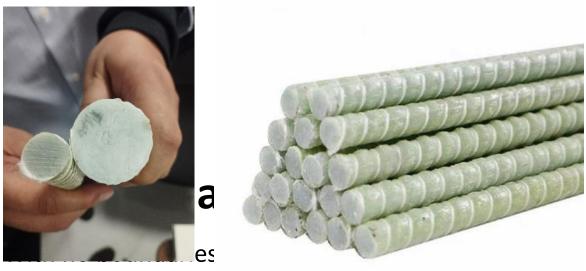


In applications with heavy traffic involved and high weight to load ratio required, pultruded gratings are only solution, as they are assembled by putting together pultruded beams and rods allowing user to adjust strength by reducing distance between each beams and adding more beams.

As a result even the loaded container can pass over these if installed at drains on road.

# **Fiberglass Rebar:**

The future of RCC and Concrete building structures Fiberglass reinforced rebar provides light weight alternative to traditional metal rebar with similar strength flexibility and stay intact for decades. Even if there is water seepage and leakage in structures.



pipes can be as wide as 10 ft in diameter.

Frp/grp tank can be produced by computer controlled filament winding process with diameter up to 2.5 meters.

