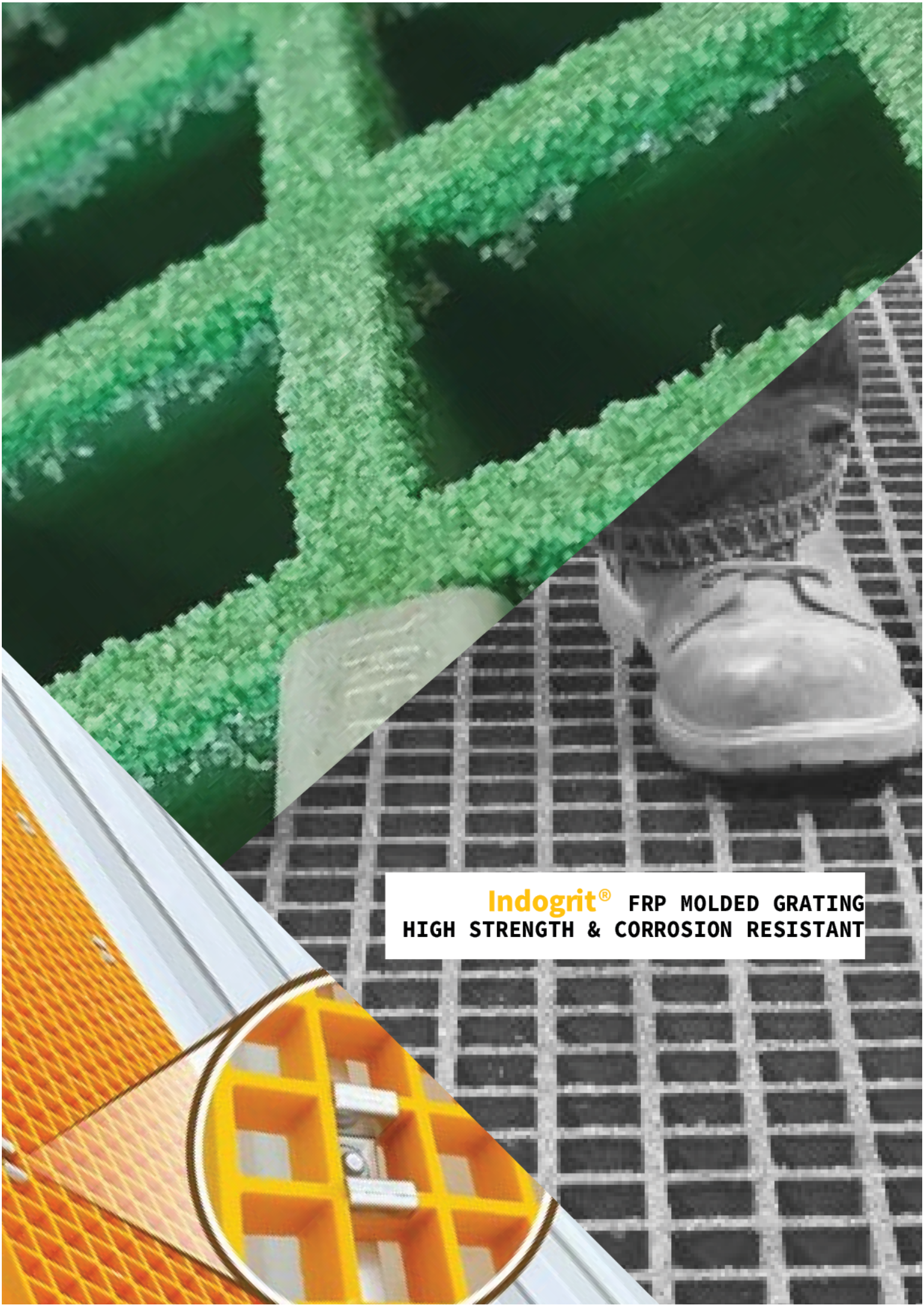
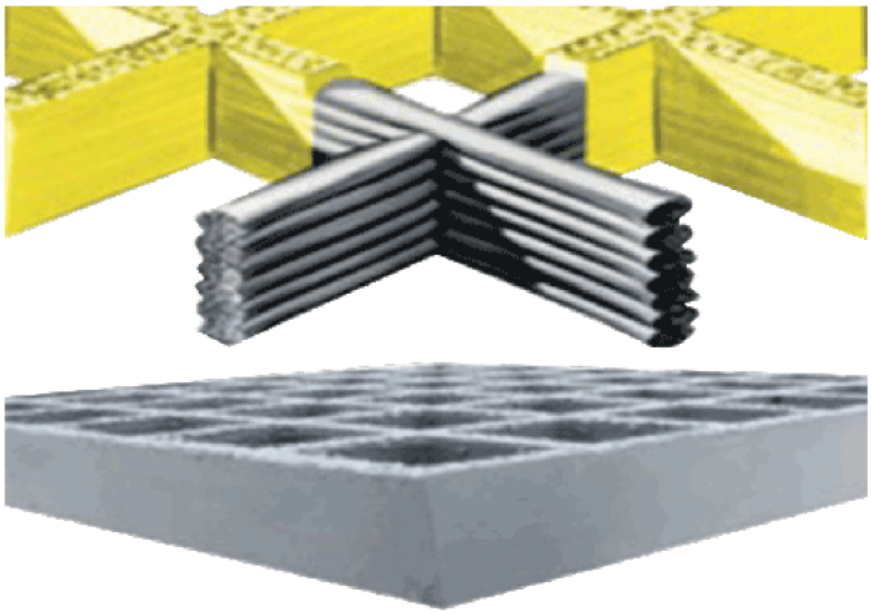
FRP Molded Grating



Indogrit® FRP MOLDED GRATING
HIGH STRENGTH & CORROSION RESISTANT

DESCRIPTION



PT. Bioseptic Waterindo Abadi, as the manufacturer of **Indogrit®** FRP gratings are manufactured by open molding . Molded Gratings are available in a variety of stock panel sizes (i.e 1m x 3m & 1.22m x 3.66, for 38mm & 25mm deep, 38mm square mesh gratigs). The designer should consider these sizes at the early stages of structure layout to effeciently utilize the material and minimize instalation cost. Molded gratings are avaible in a variety of resin systems and colors to meet specific project requirements. Detailed description of the resin system available are included in the **Indogrit®** Molded Product brochures.

DESCRIPTION

PRODUCT DESCRIPTION

Produc Type	Application	Fire Retardant	
		Class #1	Class #3
ID 25/38 GP	General Purpose, such as Pedestrian, Recreation Walk Ways, Public Acces.	√	√
ID 25/38 AR	Industrial Plat Form & Walk Ways, Ladder Stepping-Resist to weak Acid.	√	√
ID 25/38 CR	Industrial Plat Form & Walk Ways, Ladder Stepping-Resist to strong Acid & Alkali	√	√
ID 38/38 GP	General Purpose, such as Pedestrian, Recreation Walk Ways, Public Acces.	√	√
ID 38/38 AR	Industrial Plat Form & Walk Ways, Ladder Stepping-Resist to weak Acid.	√	√
ID 38/38 CR	Industrial Plat Form & Walk Ways, Ladder Stepping-Resist to strong Acid & Alkali	√	√

*) **Available for Non-Fire Retardant**

) **Minimum Order Applies for FR1.

DESCRIPTION

APLICATIONS

Field	Advantages
Electtricity Energy	Non-Condusive.
Oil and Gas	Anti Corrosive Performance for Off Shore and Other Corrosive Environments.
Chemical And Processing	Acid and Alkali Resistance.
Building and Construc-tion	High Strength and High Load Capacity.
Mechanical Engineering	High Strength and High Load Capacity.
Public Walkways	Anti Slipping Performance and no maintenance.
Recreation Walkways	Anti Slipping Performance and no maintenance.
Marine	Anti Corrosive Performance for Off Shore and Other Corrosive Environments.
Waste Water Treatment	Anti Corrosive Performance and No Maintenance.
Pulp and Paper	Acid and Alkali Resistance and No Maintenance.
Petrochemical	Acid and Alkali Resistance and No Maintenance.
Fertilizer Plant	Acid and Alkali Resistance and No Maintenance.
Food and Beverages	Anti Corrosive Performance and No Maintenance.
Galvanizing Plant	Acid and Alkali Resistance and No Maintenance.
Metal and Mining	Acid and Alkali Resistance and No Maintenance.
Smelting	Acid and Alkali Resistance and No Maintenance.
Pharmaceuical	Anti Corrosive Performance and No Maintenance.
Bridge and Highway	High Strength and High Load Capacity.
Manufacturing	Anti Slipping Performance and no maintenance.

ADVANTAGES

	**Corotion Resistant** FRP Product are known for their ability to provide corrosion resistance in the environments with serious corrosion issue.
	**Low Maintenace** The durabillity and corrosion resistance are reduced the need for heavy maintenance.
	**Anti Slipping** Steel becomes slippery when oil or wet, but **Indogrit®** gratings have a higher friction factor and remain safe even when wet.
	**Low Instalation Cost** **Indogrit®** only need bolt and clips for instalation. This product can be quickly cut and also we only need ordinary hand tool for cutting.
	**Hight Strenght** **Indogrit®** can be designed fpr high load capacity.
	**Lightweight** FRP's weight is lighter then steel (1/4 weight o steel).
	**Electrically and Thermally Non-Conductive** **Indogrit®** frp is electrically non-condusive leading to increased safety compared to conductive materials (i.e, metal).
	**Fire Retardant** **Indogrit®** provides option of fire Retardant need, products are engineered to have a flame spread of Class #1 & Class #3 in accordance with ASTM E-84.
	**Long Service Life** **Indogrit®** provides outstanding durability and corrision resistance in demanding applications.
	**Impact Resistance** **Indogrit®** can withstand major impacts with negligible damage. **Indogrit®** offers extremely durable gratings to satisfy even to most stringent impact requirements.
	**UV Resistance** **Indogrit®** are formulated for maximum uv resistance.

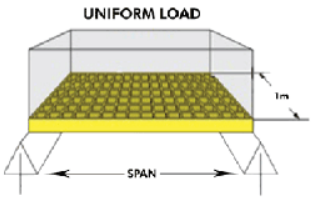
SPECIFICATION



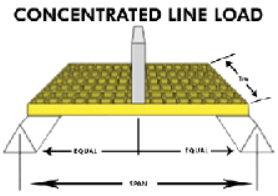
Indogrit®
38 x 38 x 25

Panel Size : 1220 x 3660 mm
1000 x 3000 mm

Open Area : 70%



Span (mm)	Uninform Load (kN/m²)													
	3	5	8	10	13	15	20	25	39	50	60	70	80	90
400	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
600	1,8	3,0	4,8	6,0	7,8	9,0	12,1	15,1						
800	5,7	9,5	15,1											
1000	13,9													



Span (mm)	Uninform Load (kN/m²)							
	3	5	8	10	13	15	20	25
400	1,6	2,6	4,2	5,3	6,8	7,9	10,5	13,1
600	5,7	9,5	15,1					
800	13,9							

Notes :

1. Concentrated Line Load is applied at the center of trip.
2. Uniform Load is applied on the area.
3. A 292,65 kg/m² live load is recommended for walkways per ASCE 7-16
4. 1kN/m² = 101,97 kg/m².

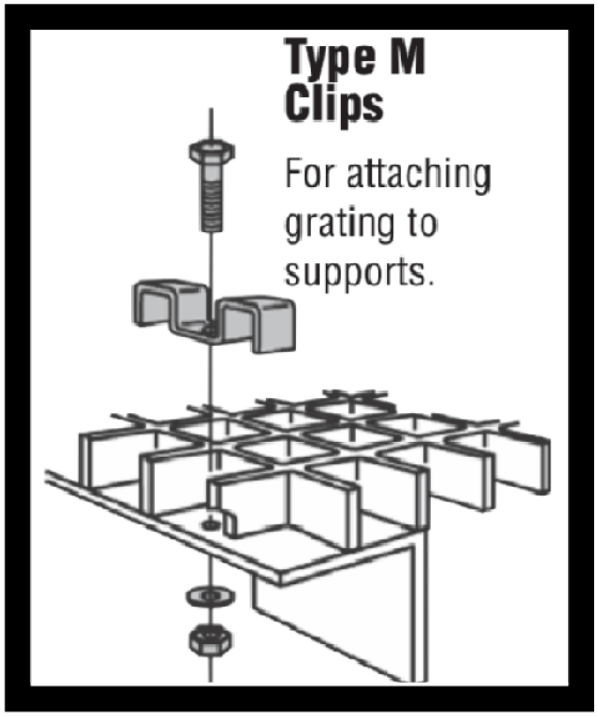
CORROSION GUIDE RESISTANT TABLE

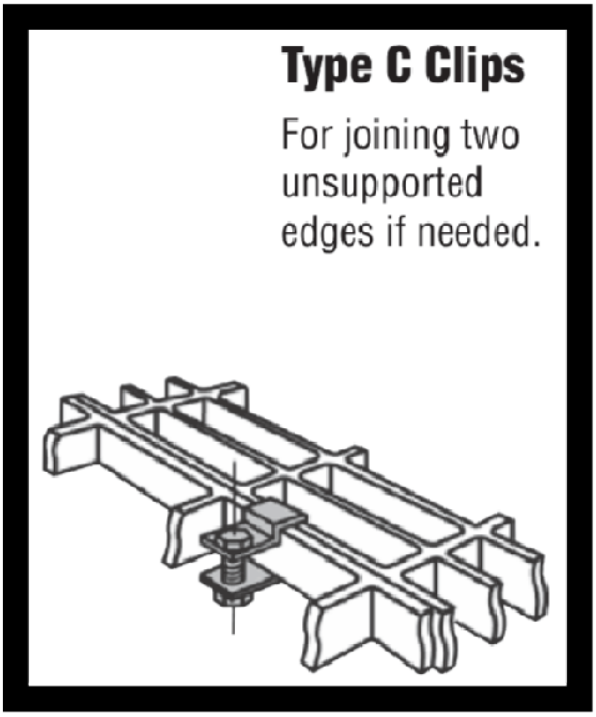
Chemical Environment	Concetration (%)	Maximum Recommended Temperature	
		Resin Type	
		Isophthalic	Vinyl Ester
Acetic Acid	10	60	100
	75	NR	40
Alumunium Chloride	All	60	100
Alumunium Fluoride	All	RT	25
Alumunium Hyroxide	100	NR	80
Alumunium Nitrate	100	60	80
Alumunium Potassium Sulfate	All	60	100
Alumunium Sulfate	All	60	100
Ammonium Chloride	All	60	100
Ammonium Nitrate	All	60	100
Ammonium Sulfate	All	50	100
Chlorine Water	SATURATED	NR	80
Chromic Acid	20	NR	50
Glycol	ALL	-	100
Hydrochloric Acid	All	60	80
Hydrochloric Acid	10	60	80
Hydrochloric Acid	15	38	80
Hydrochloric Acid	20	RT	65
Sodium Chloride	37	70	100
Sodium Hydroxide	5	NR	80
Sodium Hydroxide	10	-	80
Sodium Hydroxide	15	NR	80
Sodium Hydroxide	25	NR	80
Sodium Hypochlorite	50	50	70
Sodium Hypochlorite	10	NR	60
Sodium Hypochlorite	15	-	60
Sodium Nitrate	All	60	100
Sulfuric Acid	25	50	100
Sulfuric Acid	60	-	80
Sulfuric Acid	70	NR	80
Sulfuric Acid	75	NR	40
Sulfuric Acid	80	-	40
Sulfuric Acid	93	NR	NR

***) If the chemical is not listed, please contact our expert.**

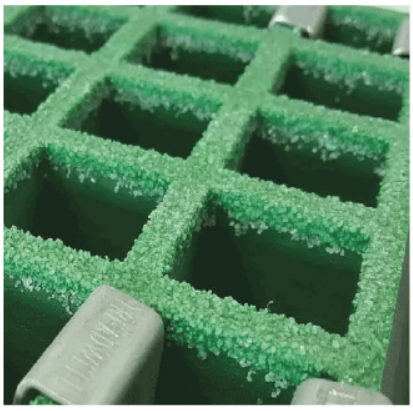
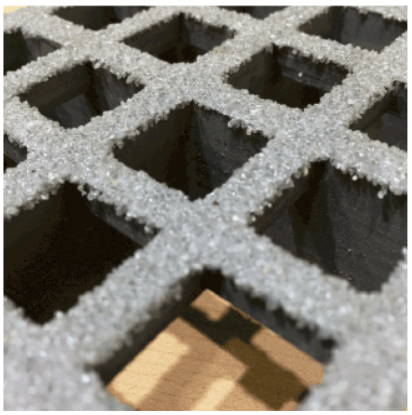
INSTALATION

ACCESSORIES PANEL INSTALATION



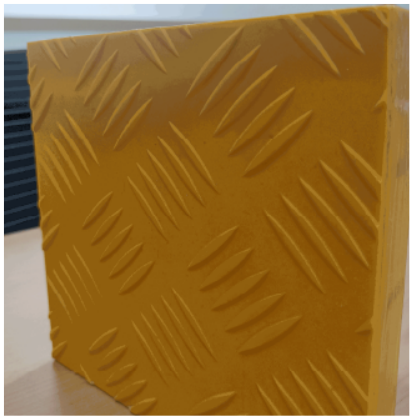
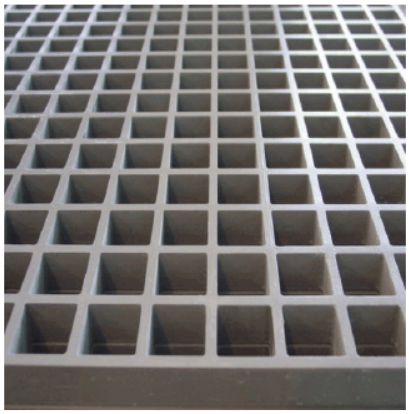
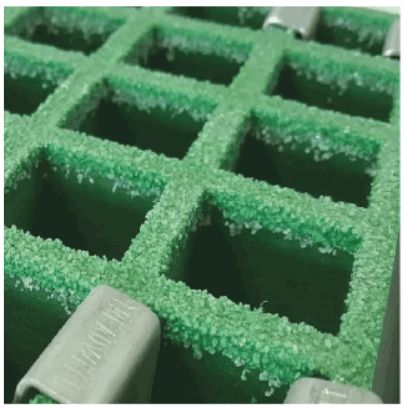


COLORS

		
Yellow	**Green**	**Light Grey**
*) Other Color by Request		

Surface Type

Available in 3 Surface Type

		
Cover Checker Plate	**Flat**	**Top Gritz**

Packing and Shipping



REFRENCES



Industrial Walk Ways



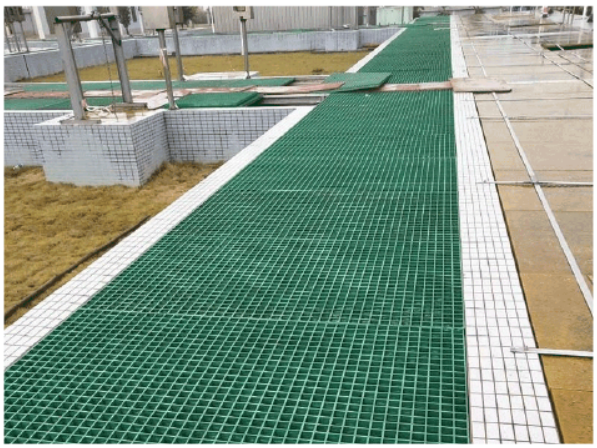
Marine Platform



Industrial Platform



Tank Farming Covering



Treching Cover



Platform Ladder



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