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#### **FIBERGLASS COVERS**

FRP / GRP covers are used in many areas such as sewerage applications, sumps, tank tops as well as channels and drains coverage.

FRP / GRP covers are normally used when drainage water are subjected to light chemicals or in the case the surrounding are corrosive in nature. It can also be used in general purpose coverage for various industries.

FRP / GRP covers are also especially useful as they are non-conductive in nature thus useful where static electricity is present in the surrounding.

Some advantages of FRP / GRP covers are

- a) Customisation as can be fabricated to different shape and sizes
- b) Durable as high corrosion resistant
- c) Lightweight as compared to conventional materials
- d) Ease of use, easy to install and easy to maintain
- e) Can be used combined with other materials to combine the advantages of different materials.

#### **DESIGN CHARACTERISTICS**

SUN SEA's covers are fabicated based on the following principles

- 1) All covers are fabricated in reference to manufacturer standard NBS PS15-69
- 2) All covers are fabricated with the surrounding environmental conditions in mind, choosing the right raw materials to meet the surrounding environmental conditions. Fire retardent covers can be requested.
- 3) All covers are fabricated using moulding method and shape and type are picked based o required usge.
- 4) All FRP covers are designed to withstand live load of 300kg/m², 50kg soft body impact and 1kg hard body impact.
- 5) All FRP covers can be designed to include handles or hinges for easy removal and opening. Manhole can also be included in the case if entry is required.



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#### TYPES OF COVERS

SUN SEA fabricates a wide range of covers, herein attach a few kinds for general usage.



**NOTE**: Above is not exhaustive, please refer to your sales for more information.

## **FIBERGLASS PANELS**

With the versatile nature of fiberglass, SUN SEA have fabrictated various panels used for various purpose, from usage in the purpose of draining to usage in the purpose of separation or space planning.

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## **FIBERGLASS STRUCTURES**

Coupled with different choices of material, SUN SEA have since fabricated various types of structures for elevation, storage and various usage.

#### **GENERAL PROPERTY OF MATERIAL FOR STRUCTURES**

	Properties	Units	Test Methods		Sharps	Rods&Bars
	Troperties		ASTM	GB of China	(Mat Reinforced)	(All Rovings)
Mechanical	Tensile Strength	Mpa	D638	GB1447	300 <sup>~</sup> 550	500 ~ 1100
	Tensile Modulus	Gpa	D638	GB1447	15~35	30 ~ 60
	Flexural Strength	Mpa	D790	GB1449	280 ~ 650	500 ~ 1100
	Flexural Modulus	Gpa	D790	GB1449	15~35	30~60
	Compressive Strength	Mpa	D695	GB1448	200 ~ 500	300 ~ 500
	Shear Strength	Мра	D732	GB1450	100 ~ 200	
	Izod Impact	KJ/m²	D256	GB1451	150 ~ 300	
Electrical	Dielectric Strength	KV/mm	D149	GB1408	8~40	
	Surface Resistivity	Ω	D257	GB1410	1011 ~ 1013	
	Volume Resistivity	Ω·cm	D257	GB1410	1013 ~ 1015	
Physical	Density	G/cm <sup>3</sup>	D792	GB1463	1.6 ~ 1.95	1.9 ~ 2.2
	Water Absorption	%	D570	GB1462	0.1 ~ 0.8	0.1 ~ 0.5
	Barcol Hardness		D2583	GB3584	50 ~ 60	50 ~ 70





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## **TYPES OF STRUCTURES**

A wide range of structures can be developed with the usage of a mix of fiberglass materials.

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