Official Profile

Pioneers

Fiberglass Manufacturing Factory

Fiberglass Manufacturing Factory

Section

The Introduction

1 Pioneers fiberglass Co. ltd. was Established in 1977, and the company was one of the oldest in its type in the Kingdom of Saudi Arabia.

2 Our Name Talks about us in the Fiberglass Business, as we developed our products thru the past 45 years to reach quality, reliability, reputation & service after sale.

3 We manufactured various and numerous products for the past 45 years with Quality and Technology.

4 Pioneers fiberglass Co. ltd. has served the Water, Wastewater, Diesel, and chemical Industry for 45 Years with engineered Fiberglass solutions.

5 Our Fiberglass tanks for water, Diesel, Degasser Towers, Fiberglass covers for Sewerage Treatment Plants are corrosion resistant.

Timeline of Pioneers fiberglass Co. ltd.

1977	1980	1990	2000	2023
Enterprise Start	**Business Success**	**Enterprise Success**	**Customers Satisfaction**	**Royality & Dignity Maintained**

Pioneers fiberglass Co. ltd.

Our Fiberglass Covering Products for Water Treatment Plants and STP,s are used in various projects throughout the Kingdom of Saudi Arabia and GCC.

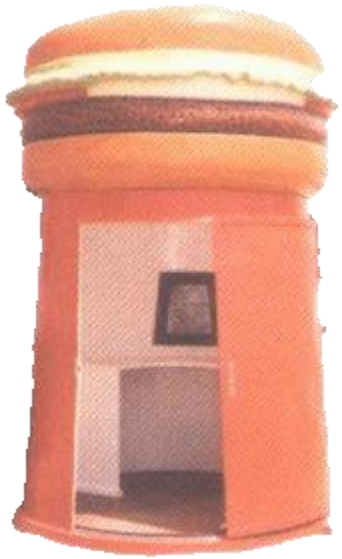
Power Gate also work in Joint venture with CF Maier Co, Germany One of the biggest Fiberglass product manufactures in the World.

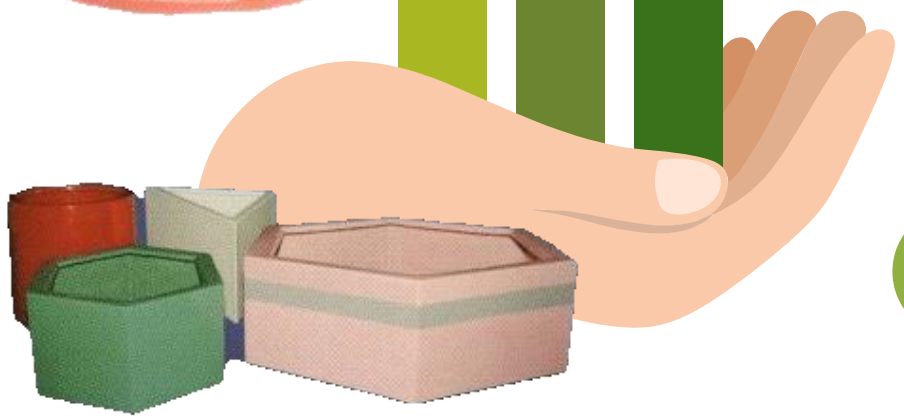
Happy **Independence** Power Gate

Power Gate also started the Oakleaf Simulated Wood Moulding products in the year 1999 thru franchising to produce these materials from England Company : Oakleaf Co.

Our Factory is situated Inside the Riyadh 1st Industrial Area and our Co-Factory situated at Sudheer Industrial Area.

VALUES





Responsibility

Taking care of individuals, community service and delivering sustainable solutions to attain high level health, safety and protection of environment.

Leading and Team Work

Strengthening leadership roles that advance economic development, with our confidence in the spirit of teamwork.

Motivation

Success and improvement through the best performance are the basis for our employees, and motivating them to keep engaged has appositive impact in building strong relations with our customers.

Excellence

Achieving Customer satisfaction and providing high – quality services and products through an innovative technique.

Safety

Keeping the highest standards of safety, security and health.

VISION

We believe that industry and technology ultimately existed to serve the human being, so we strive to play a fundamental role in harnessing them in the service of human beings by developing and providing products that are beneficial to humans and friendly to their environment at the main driver for work,

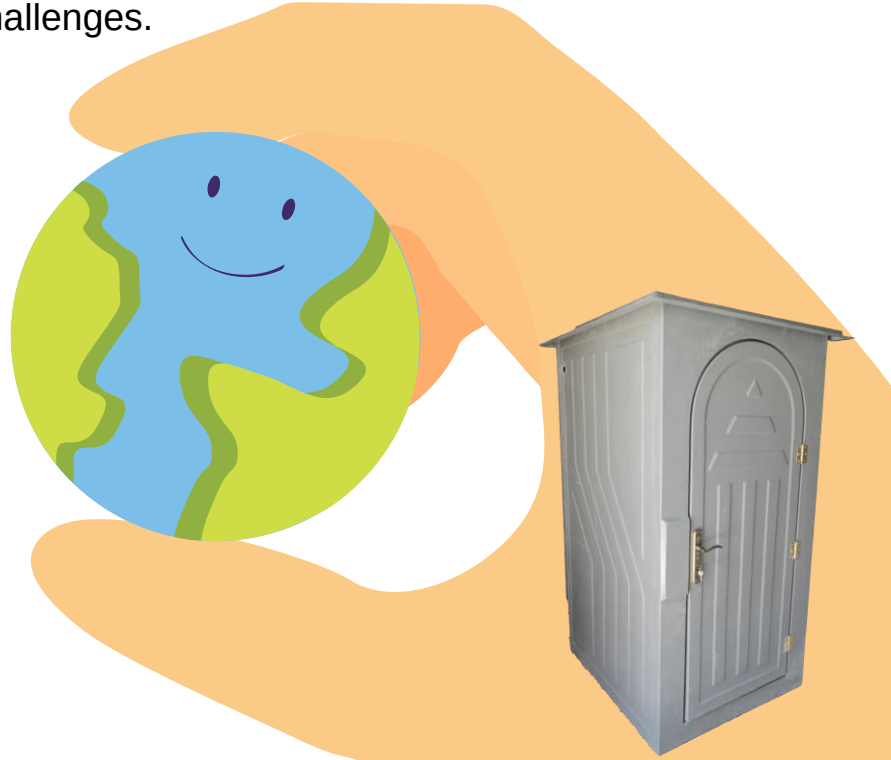
So we pay our attention to our employees by carefully working on selection the best talents and then working on development and motivation permanently to move forward in line with our ambition and our vision so that we can contribute to the best For our society and support our economy and dependence on ourselves in various fields..

PIONEERS FIBERGLASS MANHOLE SEWERAGE NETWORK

Pioneer has served the Water, Wastewater, Diesel and Chemical industry for over 35 years with engineered fiberglass solutions.

Fiberglass tanks for Water, Diesel, Degasser Towers, Fiberglass Covers for Sewerage Treatment plant are corrosion resistant, Lightweight, and designed for quick installation by local Contractor, The low profile, tank covers provide less air Volume to scrub and eliminate the need for workers Having to enter enclosed spaces. With high strength, Structural components and a non-skid, weather resistant Finish, the covers offer a fully walk able surface.

Exceeding the performance of other materials, The Tuff pan XL cover system provides functionality Comparable to aluminum systems along with superior Corrosion protection. Cost competitive, fully gasket, Plus being easy to remove and install, Tuff Span XL Tank covers deliver a complete and better solution for Water and wastewater design challenges.



A Tool for Environmental and Process Control

The impact of your design upon the environment will be Closely monitored and measured by the plant operator, local Government and your neighbors, A cover can help you with: Odor Control, VOC Emission Control, Splash Control, Algae Growth Barrier / UV Control, Freezing / Thermal Barrier, General Process Protection, Drinking Water Protection, Aesthetics.

MANHOLE SEWERAGE NETWORK

Pre-Engineered Cover Systems Nap Consist of

XL Long Span Decking, FRP Beams, Trusses, FRP Hatches, FRP Stub Vents, Accessories.

The Lov Profile Advantage

And, low-profile covers save you money by Giving you control over the air volume and eliminating Confined-space entries. Less air volume to scrub translates into smaller Scrubber units. Elimination of confined-space entries means fewer Regulatory limits for you.

FIBERGLASS

Benefits of Fiber Reinforced Composites

As a result of its light weight, high strength, extreme durability, Stability Under SASO exposure, Water, waste Water, Fuel and chemical resistance, FRP: (Fiber reinforced Polyester) has become established as a material of major importance in an ever-increasing number of applications. FRP can be molded into an infinite number of forms and surface finishes and it capable of meeting stringent design standards while at the same time providing major cost benefits.

Fiber reinforced composites typically contain on or more reinforced fiber material embedded in plastic resin. In many applications core material is used to increase the section modulus.

Fiber reinforcements contribute the bulk of strength and stiffness to a composite. There are a number of such materials, including glass fiber, carbon fiber, Aramid fiber, Kevlar and others, all of which come in a variety of different grades and types. The most widely used reinforcement in the FRP composite industry is glass fiber.

Cores are used to enhance the rigidity and strength of FRP composites. Cored products can have one smooth surface or both surface smocth with the core sandwiched in.

Detail of Material for Sectional Type Rectangular Manholes

Chopped Stand Matt (CSM)

Chopped matt in roll form, this is a mat of randomly chopped stands held together by a light binder.

VINYL ESTER RESIN

Is used as binding material is High Chemical Resistance Bisphenol -A Epoxy based

Thickness of Manhole

It provides uniform strength in all direction.

Vinyl ESTER Pre- Accelerated Resin. The chemical Resistance is very good particularly towards acids, alkalis and oxidizing agents.

Thickness 10mm

Common Fiber Glass Forms

Chopped Stand Matt (CSM)

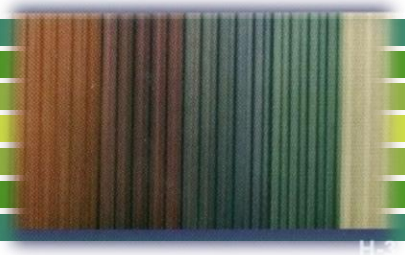
Chopped matt in roll form, This is a mat of randomly chopped stands held together by a light binder. It provides uniform strength in all direction.

Woven Glass Cloth

Produced by conventional textile weaving methods in virtually any variation, Thinner cloths make lamination of very high tensile strength and modulus.

Glass Flakes

Used in based coating to reduce the permeability of moisture, vapors and solvents.



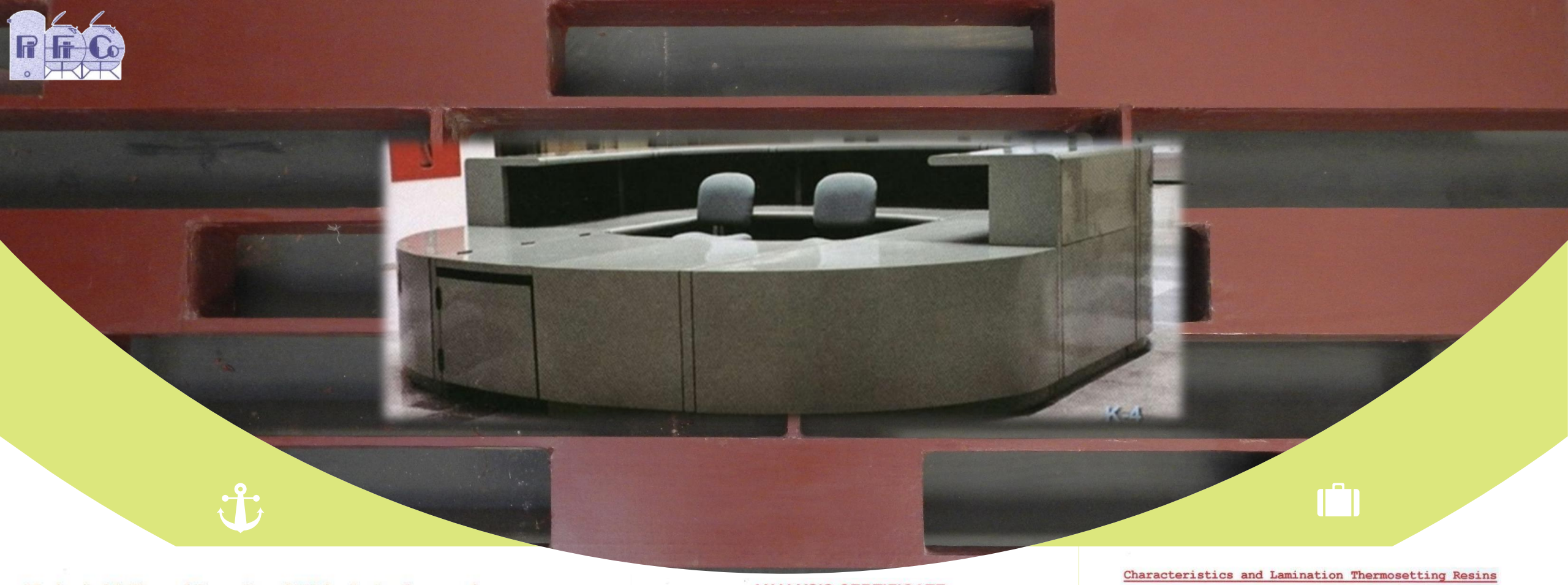
Woven Roving (WR)

Is used in conjunction with chopped mast provide bulk and directional strength to FRP Laminate. Glass fibers are arranged at right angles to each other or in other position so that their orientation provides balanced strength.

Industrial Standard Core Types

EALSA WCOD Scored balsa wood core gives excellent compressive strength and stiffness in addition to good sound and heat insulation and positive flotation.

The bulk component of FR? laminates, the plastic resin serves two purposes, First it hold the fiber reinforcement in place and second under applied force, it deforms and distribution stress amongst these fibers.



Mechanical & Thermal Properties of FRP laminates Compared with Other Structure

Material	Specific Gravity	Elastic Modulus MPa	Tensile Strength MPa	Compressive Strength MPa	Max Working Temp C	Thermal Conductivity W/mk	Expansion Coefficient *10/C
Aluminum	2.7	69	417		200	200	23
Concrete	2.4	15-35	03	40			
Mild Steel	7.8	207	240		400	50	12
Stainless Steel	7.92	193	241		450	55	15
FRP	1.5-2.2	7-53	80-900	130-520	170-250	0.2-0.3	10-30

ANALYSIS CERTIFICATE

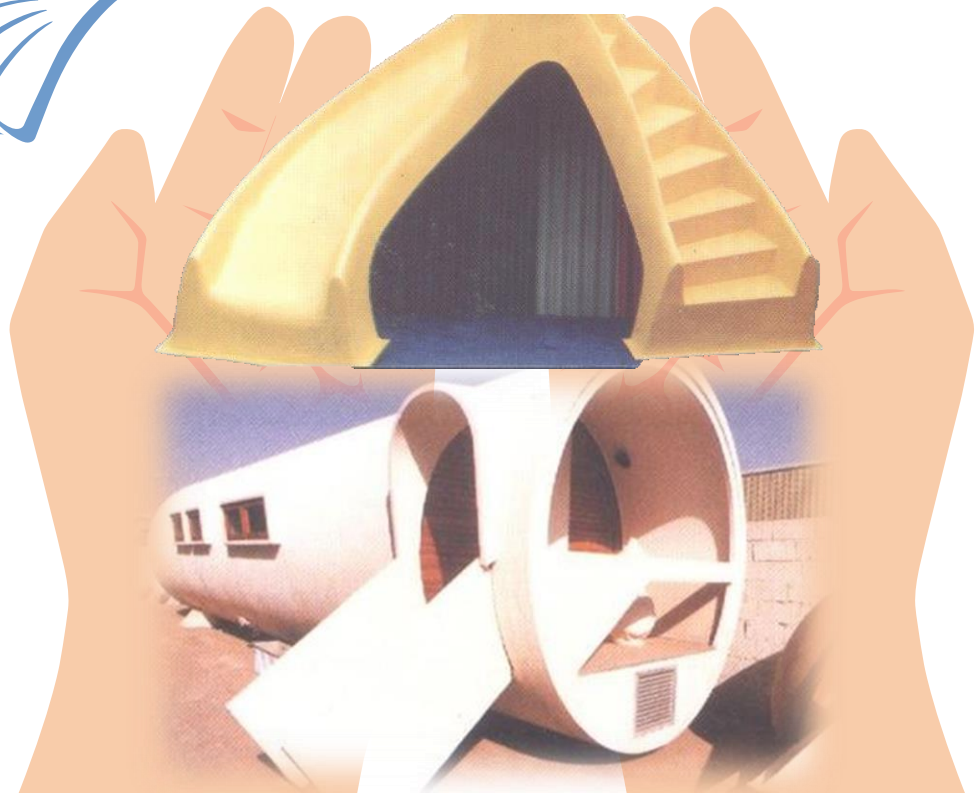
SC NO.: SCD122010002

PRODUCT NAME: E-GLASS FIBER DIRECT ROVING FOR FILAMENT WINDING 2400TEX

PROPERTIES FOR CONTROL REPORTS	ACCEPTED STANDARD		TEST RESULT	
	STANDARD NO.	STANDARD VALUE	AVERAGE VALUE	PASSED?/ YES/NO
LINEAR DENSITY(TEX)	ISO1889-1997	2400+/-120	2399.3	YES
BREAKING INTENSION(N/TEX)	ISO3341-2000	≥0.40	0.51	YES
MOISTURE CONTENT (%)	ISO3344-1997	≤0.10	0.04	YES
COMBUSTIBLE MATTER CONTENT (%)	ISO1887-1995	0.55+/-0.15	0.57	YES
TEST CONDITIONS	TESTING TEMPERATURE(℃)	23℃	RELATIVE HUMIDITY%	57%

Characteristics and Lamination Thermosetting Resins

Type of Resin	Characteristics	Lamination
Vinyl Ester Resin **For FRP Covers Sewerage plant purpose**	*Excellent Mechanical Properties *Excellent Chemical Properties *Excellent for Sulphuric acid Resistance *Excellent for FRP Cover Sewerage Treatment Plant *Good Fatigue Résistance Good Toughness Low Water absorption	Some shrinkage in curing
ISOPHATALIC Polyester Resin	*Excellent Mechanical Properties *Excellent Chemical Properties *Good Fatigue Résistance Good Toughness Low Water absorption	Some shrinkage in Curing
Epoxy	*Excellent Mechanical Properties *Excellent Chemical Properties * Good thermal properties * Very good electrical properties *Good Fatigue Résistance Good Toughness Low Water absorption	Long Curing cycles Limited cosmetic properties



MATERIAL DATA SHEET

- Fiberglass
- Resin
- Gelcoat
- Catalyst
- Acetone
- Styrene Monomer

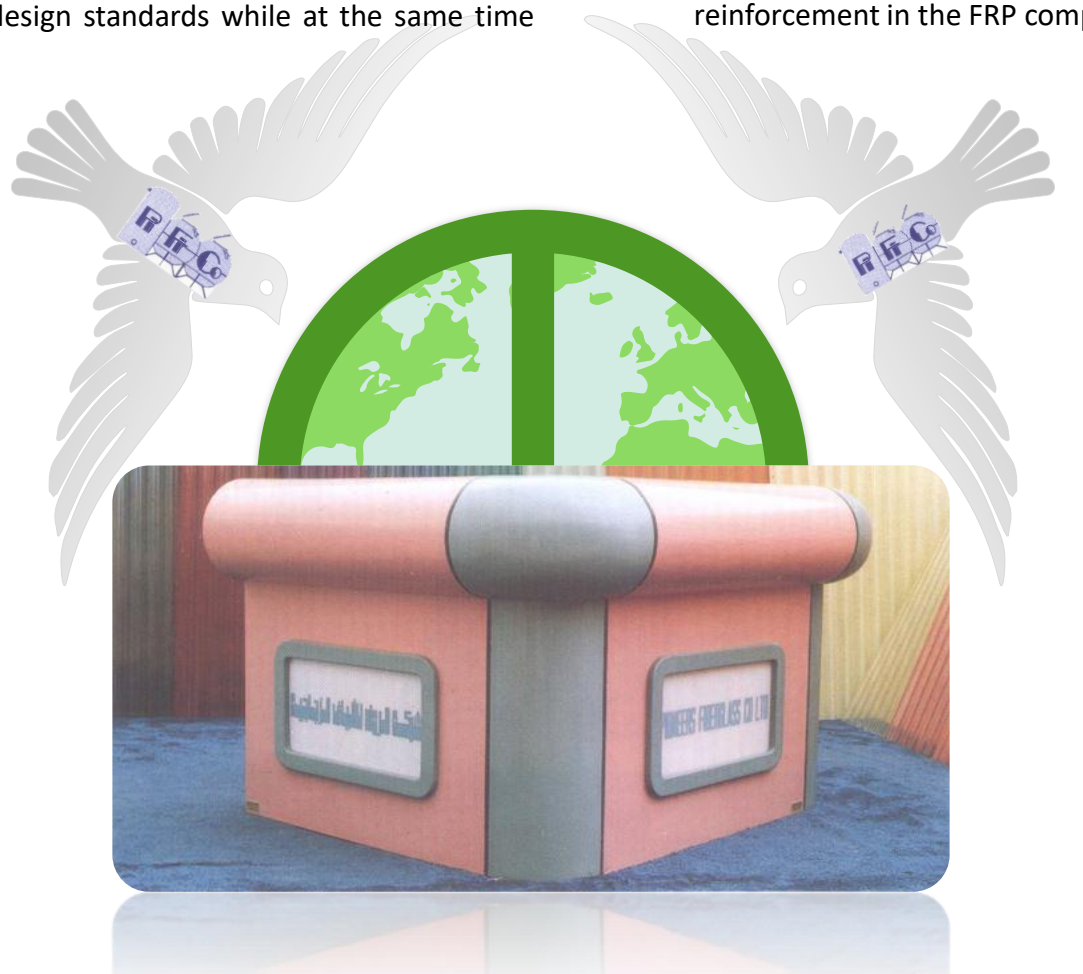
Fiber Reinforced Composites

As a result of its light weight, high strength. extreme durability, stability under UV exposure. and chemical resistance, FRP (fiber reinforced polyester) has become established as a material of major importance in an ever-increasing number of applications. FRP can be molded into an infinite number of forms and surface finishes and strip - is capable of meeting stringent design standards while at the same time providing major cost benefits.

Fiber reinforcements contribute the bulk of strength and stiffness to a composite. There are a number of such materials, including glass fiber. carbon fiber, Aramid fiber. Kevlar® and others. all of which come in a variety of different grades and types. The most widely used reinforcement in the FRP composites industry is glass fiber.

Fiber reinforced composites typically contain one or more reinforcing fiber materials embedded in plastic resin. In many applications core materials are used to increase the section modulus.

The bulk component of FRP laminates, the plastic resin, serves two purposes: First, it holds the fiber reinforcements in place. and second. under applied force. it deforms and distributes stress amongst these fibers.



Cores are used to enhance the rigidity and strength of FRP composites. Cored products can have one smooth surface or both surfaces smooth with the core sandwiched in. Typical coring materials are detailed below.

The most common type of plastic resin is unsaturated polyester. Other types of resin include epoxies, vinyl esters, phenolics, etc.

Below is a table detailing the characteristics and limitations of the most common types of thermosetting resins.

Common Glass Fiber forms

CHOPPED STRAND MAT (CSM)

Supplied in roll form. This is a mat of randomly chopped strands held together by a light binder. It provides uniform strength in all directions.

WOVEN ROVING (WR)

Is used in conjunction with chopped strand mat to provide bulk and directional strength to FRP laminates. Glass fibers are arranged at right angles to each other or in other positions so that their orientation provides balanced strength.

WOVEN GLASS CLOTH

Supplied in roll form. This is a mat of randomly chopped strands held together by a light binder. It provides uniform strength in all directions.

CONTINUOUS FILAMENT MAT (CFM)

Properties similar to CSM. Used for RTM and VARI processes.

GLASS FLAKES

Used in resin-based coatings to reduce the permeability of moisture, vapors and solvents.

PVC FOAM

Excellent elastic properties and resilience.

PU FOAM

Economical and light weight core for non-dynamic product applications.

HONEYCOMBS

Used for strong, lightweight structures. There are aluminum, Aramid and plastic honeycombs.

NON-WOVEN CORE MATS

Provide stiffness improvement and weight reduction.

Industry Standard Core Types

BALSA WOOD Scored balsa wood core gives excellent compressive strength and stiffness in addition to good sound and heat insulation and positive flotation.

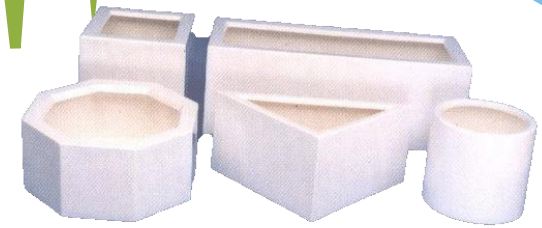
Mechanical & Thermal Properties of FRP Laminates Compared with other Structural Materials

Material	Specific Gravity	Elastic Modulus MPa	Tensile Strength MPa	Compressive Strength MPa	Max. Working Temp °C	Thermal Conductivity W/mK	Expansion Coefficient x10/ °C
Aluminum	2.7	69	417		200	200	23
Concrete	2.4	15-35	3	40			
Mild Steel	7.8	207	240		400	50	12
Stainless Steel	7.92	193	241		450	55	I5
FRP	1.5-2.2	7-53	80-900	130-520	170-250	0.2-0.3	10-30

Characteristics and Limitations of Thermosetting Resins

Characteristics and Limitations of Thermosetting Resins

Resin Type	Characteristics	Limitations
Polyester	Wide choice of resins Cure at room temperature Very good mechanical properties Good chemical resistance Good electrical properties	Some shrinkage on curing
Vinyl Ester	Excellent mechanical properties Excellent chemical resistance Good fatigue resistance Good toughness Low water absorption	High cost Some shrinkage on curing
Epoxy	Excellent mechanical properties Very good chemical resistance Good thermal properties Very good electrical properties Low shrinkage on curing	High cost Long cure cycles Limited cosmetic properties



Advantages of Fiberglass Tanks

Available Sizes

fiberglass water tanks are manufactured in various sizes for meeting the customers required dimensions. Standard tanks are available in diameter sizes ranging from 125 to 300 cm. One can also get a custom design and size done by any manufacture. Fiberglass tanks can be built with many different options and fittings. Some of these include various flanges, man-ways, sight glasses, ladder cages, insulation and various other specialty fixtures

Corrosion-Free

fiberglass water tanks eliminate the need for any additional corrosion protection, like exterior painting and cathodic protection systems for over ground and underground installations. As the fiberglass tanks are of anti-corrosive nature, the need for costly maintenance and repainting is eliminated, offering considerable savings as compared to steel tanks. Also the risk of leakage and content contamination is greatly reduced as far as fiberglass water tanks are concerned.

Clean Water Storage

It is very important to keep water fresh and clean. As fiberglass potable water tanks are corrosive resistant to the minerals and chemicals found in water, they serve this purpose well. Whereas steel tanks may rust and corrode, which will affect the quality of the water stored inside. Thus, fiberglass potable water tanks will continuously keep your water fresh and clean with no corrosion.

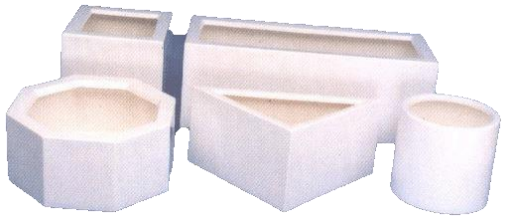
Excellent insulation material

fiberglass is considered as one of the best heat and sound insulation material, for that it has been used in the manufacturing of acoustic boards, portable cabinets and shelters, doors and many other industries that requires excellent insulation properties. The construction of the fiberglass tanks decreases significantly the amount of heat transferred through the tank body, starting from the sun reflective and whether resistant gelcoat up to the multi fiberglass layers used in the construction.

Economical

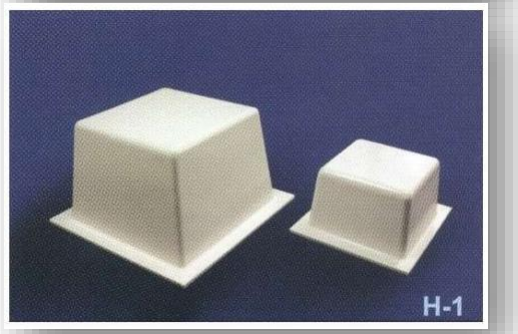
fiberglass water tanks have an excellent economic value as compared to steel tanks. A fiberglass tank will weigh approximately 60% less than a steel tank; this makes installation a lot easier and less time consuming, thus saving the customer money in the long run. Also, fiberglass tanks save money as they are more durable and have a longer service life than steel tanks.

Our Product's & Our Project's



Product's

GRP Prefabricated Toilets

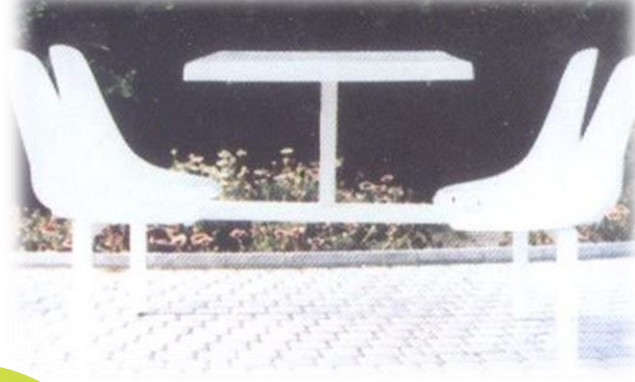


Pioneers fiberglass Co. ltd.

Presenting

We believe that industry and technology ultimately existed to serve the human being, so we strive to play a fundamental role in harnessing them in the service of human beings by developing and providing products that are beneficial to humans and friendly to their environment at the main driver for work,

Our Project's



1. KING ABDULLAH FINAICAL DISTRICT RIYADH

   RIYADH CITY

   EL SEIF CONTRACTING CO

2. QASSIM HAIL TREATMENT PLANT

   HAIL AND AL QASSIM NABHANYAH

   SAUDI BIN LADIN JUBAIL

3. 420 HOSPITALS

   DIFFERENT LOCATION IN K.S.A

   AL ARRAB CONTRACTING Company

4. AL KHOBAR LAKE DEVELOPMENT PROJECT

   AL KHIBBAR

   AL JABRIA/BCC & GULF ELITE

Our Project's

PROJECT GFRP COVERS JEDDAH AIR PORT

LOCATION JEDDAH AIR PORT SEWERAGE PLANT

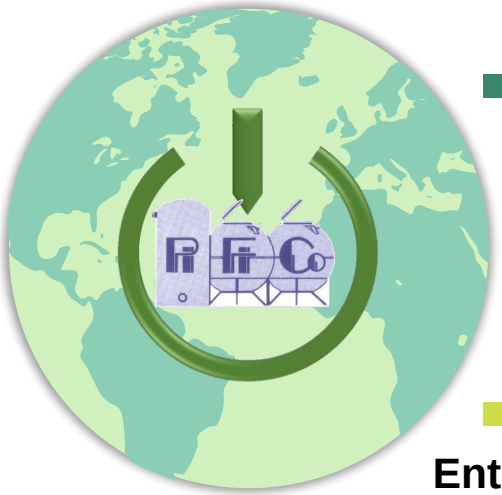
Business Success

Royality & Dignity Maintained

KING SAUD UNIVERSITY

ABV ROCK

WATER TANKS 60000 LITERS



350 TANKS FOR SCHOOLS

DIFFERENT AREA IN K.S.A

ALL COMPANIES WHICH WORK FOR SCHOOLS

MORE THAN 400 IN YEARS

Customers Satisfaction

Enterprise Success

DESCRIPTION FIBERGLASS COVERS FOR SEWERAGE PLANT

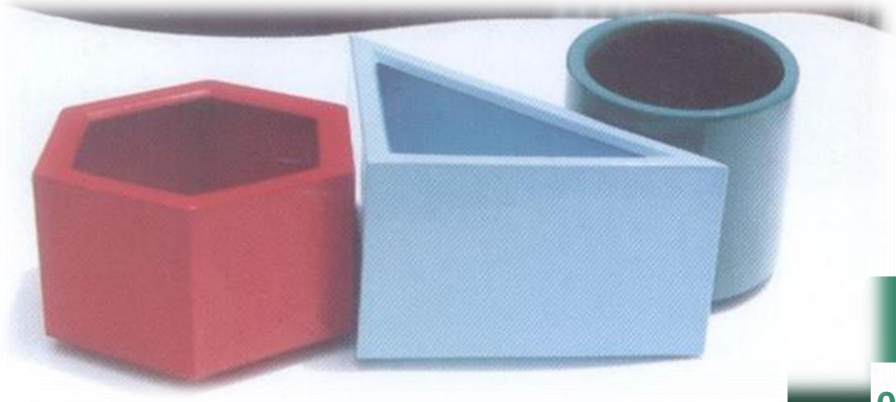
QUANTITY 45,000 M2

CLIENT NATIOANAL WATER CO

JOIN VENTURE C.F MAIER CO

Our Project's

We Maintained Quality Product's & Successful Projects



01

CLIENT C.F MAIER GERMANY

SPECIAL PROJECTS OF FIBERGLASS COLUMN FOR CONCR

02

PROJECT COVERS AERATION AND SCREW TANK

LOCATION RIYADH SEWERAGE TREATMENT PLANT

DESCRIPTION FIBERGLASS COVERS AERATION CLIENT NATIONAL WATER CO

03

PROJECT HEET SEWERAGE PLANT

LOCATION HEET KHARJ ROAD

DESCRIPTION FIBERGLASS COVERS AERATION TANKS

04

PROJECT GFRP COVERS RAYSUT SALALA OAMN MUSCAT

LOCATION RAYSUT SALALA

DESCRIPTION FIBERGLASS COVERS

FOR SEWERAGE PLANT

CLIENT MINISTRY WATER AND POWER

JOIN VENTURE C.F MAIER CO

Our Project's

Enterprise Start

PROJECT GERP COLUMN
KA.F.D RIYADH

LOCATION KING ABDULALLAH FINANCIAL DISTRICT

CONTRACTOR SHPOONJI POLLANJI

DESCRIPTION 'GFRP COLUMN FOR CONCRETE

Business Success

PROJECT COVERS FOR AERATION AND PRIMARY TANK

LOCATION SHARJAH UNITED ARAB EMIRATES

DESCRIPTION FIBERGLASS COVERS AERATION TANKS

Enterprise Success

PROJECT SAUDI RAILWAYS

LOCATION RAILWAY STATION

CONTRACTOR SULAIMAN AND SONS CO

DESCRIPTION GFRP COLUMN FOR CONCRETE

Customers Satisfaction

PROJECT GERP COLUMN
K.A.E.

LOCATION KING ABDULALLAH FINANCIAL DISTRICT

CONTRACTOR ELSEIF

DESCRIPTION GFRP COLUMN FOR CONCRETE

Royality & Dignity Maintained

PROJECT NATIONAL WATER COMPANY

LOCATION SEWERAGE TREATMENT PLANT RIYADH

CLIENT NATIONAL WATER COMPANY

DESCRIPTION CHEMICAL AND SEWERAGE TANKS

Pioneers fiberglass Co. ltd.

Presenting

Pioneers fiberglass Co. ltd.
We manufactured various and numerous products for the past 45 years with Quality and Technology.

We Create

Quality Professional

PGCo. Presentation

Pioneers fiberglass Co. ltd.

Ten Years Guarantee.

- Manufactured from the raw material pure Poly ethylene.
- Smooth inside and outside surfaces are resisting the growth of bacteria, fungi and algae.
- Saudi water tank by 100% European Standard, Stabilized against ultra violet rays and heat.
- Available in convenient sizes, shapes and colors horizontals position & Vertical, R& D is always updating our products as per international standards, Light and strong [n design.
- After Sales Services: Maintenance teams Services Cover Warranty Period Include International.

Pioneer has served the Water, Wastewater, Diesel and Chemical industry for over 35 years with engineered fiberglass solutions.

Environment Eco Friendly

Clean Water Storage

It is very important to keep water fresh and clean. As fiberglass potable water tanks are corrosive resistant to the minerals and chemicals found in water, they serve this purpose well. Whereas steel tanks may rust and corrode, which will affect the quality of the water stored inside. Thus, fiberglass potable water tanks will continuously keep your water fresh and clean with no corrosion.

Economical

fiberglass water tanks have an excellent economic value as compared to steel tanks. A fiberglass tank will weigh approximately 60% less than a steel tank; this makes installation a lot easier and less time consuming, thus saving the customer money in the long run. Also, fiberglass tanks save money as they are more durable and have a longer service life than steel tanks.

Contact Us

Location of The Factory

First Industrial Area,
Riyadh,
Kingdom of Saudi Arabia

P.O.BOX 6414 Riyadh 11442.

Contact Details

Mobile Number: +966 (0) 55 650 2952

E Mail Address: pioneersoakleaf@gmail.com
E Mail Address: sas2321@gmail.com


PIONEERS
FIBERGLASS CO.
LTD.
THANK YOU