COMPOSITE MATERIALS

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COMPOSITE

Advantages of fiberglass composite materials

Cost-effectiveness: The price of fiberglass profiles is lower than that of aluminum and stainless steel profiles, taking into account savings on delivery, installation, and the absence of maintenance costs.

Corrosion resistance: The profiles have excellent anti-corrosion properties and are resistant to aggressive environments, including acids, alkalis, and salts.

Durability: They provide a long service life, do not change their characteristics or appearance, and are resistant to chemical environments, water, humidity, and temperature fluctuations.

Wide range of applications: Suitable for construction, petrochemicals, infrastructure projects, water facilities, water treatment, and many other fields.

Lightweight and strong: Service life of up to 50 years, does not rot, change color, or scratch. They are 5–6 times lighter than steel and 2 times lighter than duralumin.

Ease of processing: Easy to cut and install without the need for welding or lifting equipment. Various fastening methods are possible, such as screws, bolts, adhesives, or rivets.

Low thermal conductivity: Comparable to wood in thermal insulation properties, but not subject to rotting or warping.

Dielectric properties: Fiberglass is a dielectric, making it well-suited for work with both direct and alternating current.

RAL coloring: Available in more than 4,000 colors, enabling architects and designers to bring any concept to life.

PROFILES

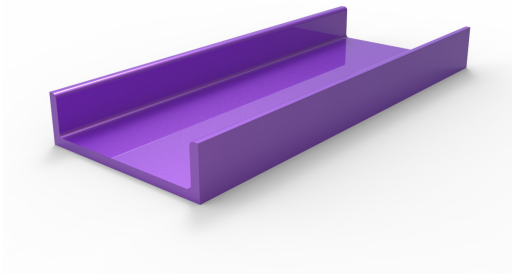
Fiberglass channel

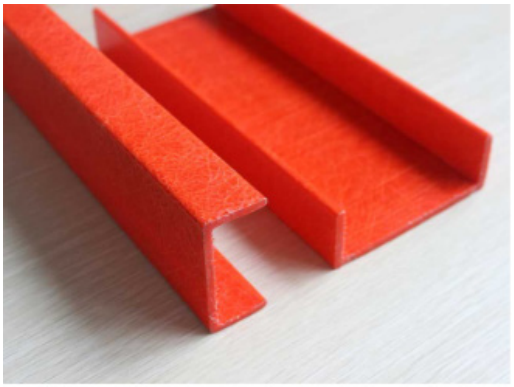
A composite channel is a profile with a U-shaped cross-section.
Its design ensures strength and stability under both longitudinal and bending loads. The composite channel is resistant to corrosion and features high rigidity and reliability.

You can purchase a composite channel, as well as request an estimate and calculation of the required amount of material, with the help of our managers. They will also suggest the choice of material according to the necessary specifications. We are always ready to provide advice regarding the purchase and use of other types of composite profiles manufactured by our company.

Usage

Stair landings and flights:
Thanks to wear resistance and strength, fiberglass channels are ideal for use in the chemical industry and on stair landings.
Bridges and crossings:
Channels are used in the construction of pedestrian bridges and other technological structures, ensuring resistance to aggressive environments.
Warehouses:
In warehouse facilities, fiberglass profiles help reduce construction costs and eliminate the need for heavy equipment due to their lightness and strength.
Hangars:
The profile serves as an alternative to traditional materials, requiring no maintenance and providing a service life of up to 50 years, surpassing metal materials.
Facades and fences:
Channels are used for cladding and decorating buildings thanks to their variety of colors and textures, which attracts designers and architects.
Technological platforms and walkways:
Fiberglass channels are applied where the use of heavy reinforced concrete and metal structures is not possible.





PROFILES

Round fiberglass pipe

A round fiberglass pipe is a drawn hollow profile of an O-shaped cross-section. A round pipe is one of the frequently used profiles both in structures of various purposes and separately from them. The features of this profile are equal distribution of transverse loads, as well as good streamlining of air flows.

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Usage

Fiberglass round pipes are used in various industrial fields, both as independent structures and as connecting components and elements. In the energy sector, they are applied as insulating rods and also as antenna masts. Most commonly, they are used as fencing structures. In addition, they enhance the strength and interconnection of components and joints in different constructions. Fiberglass pipes are also used as handles for various tools.

PROFILES

Fiberglass handrail

Handrail for railings - is a drawn figured profile of U-shaped section, made of fiberglass. It is intended for installation on railings. This profile can also be attached to the wall separately. The basis for the use of fiberglass handrails is ergonomics, durability and safety.

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Usage

Composite railings are truly comfortable, aesthetic and practical.
The main difference between composite railings and metal ones is their practicality and ease of use. The composite profile is undoubtedly a superior alternative to metal: it does not require preventive care, maintenance or painting. Its service life is several times longer. Due to its low thermal conductivity, it does not feel cold to the touch, and it does not burn your hand under strong sunlight.

PROFILES

Rectangular fiberglass pipe

A rectangular composite pipe is a fiberglass profile with a square-shaped cross-section. Thanks to its high strength combined with relatively low weight, this profile tube is widely used in construction, in the assembly of frame structures, as supports, beams, and other structural elements. It also features an attractive appearance.

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Usage

Rectangular pipes are used in frame construction, bridge building, highway fencing, coastal landscaping, and for stairways, service platforms, and decks. Fiberglass composite profiles are undoubtedly preferred due to their wear resistance, strength, and resistance to aggressive environments. They are indispensable in the chemical and oil and gas industries, for constructing structures in water, and for construction in humid conditions.

PROFILES

Square fiberglass pipe

A square fiberglass tube is a profile with a square-shaped cross-section. Thanks to its high strength combined with relatively low weight, this composite tube is widely used in construction, in the assembly of frame structures, as supports, beams, and other structural elements.

You can purchase a square composite pipe, as well as request an estimate and calculation of the required amount of material, with the help of our managers. They will also suggest the choice of material according to the necessary specifications. We are always ready to provide advice regarding the purchase and use of other types of composite profiles manufactured by our company.

Usage

A square tube is used in frame construction, bridge building, highway fencing, coastal development, as well as in stair and service platforms.
Fiberglass composite profiles are undoubtedly preferred due to their wear resistance, strength, and resistance to aggressive environments.
They are indispensable in the chemical and oil and gas industries, as well as in the construction of structures in water and in humid conditions.

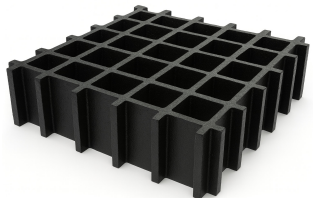
GRATINGS

Fiberglass gratings

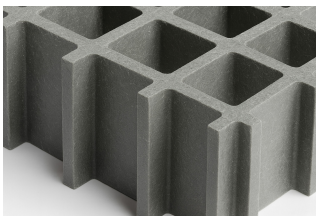
Just like fiberglass profiles, gratings offer the following advantages:

- **Corrosion resistance**
- **Double-sided durability**
- **High impact strength**
- **Resistance to ultraviolet radiation**

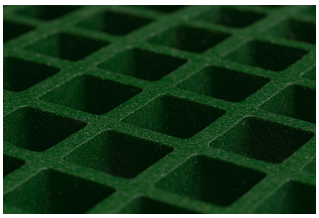
These gratings are typically manufactured from profiles with a height of 30–40 mm, but can also be produced in other heights if required.



Concave surface
The surface of the grating can be concave. A concave surface is defined as a plane that curves inward during the curing process. The resulting edges of the grating provide high slip resistance.



Smooth surface
The surface of the grating can also be smooth.



Anti-slip surface
An anti-slip sanded surface is created by applying anti-slip sand to the concave surface.

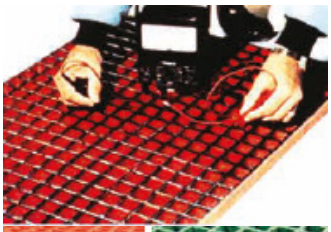
Closed surface
A closed surface is formed by combining the mesh surface with a plate, creating an enclosed anti-slip form.

GRATINGS

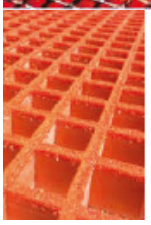
Characteristics of fiberglass gratings

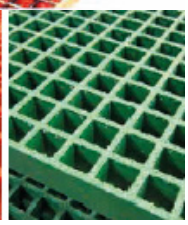
Fire resistance
Fiberglass gratings prevent the spread of fire thanks to special additives in the resin composition.

Dielectric properties
Composite gratings possess dielectric properties, making them ideal for areas where electrical insulation is required.



Anti-slip properties
Slip and fall accidents are among the most common in industrial environments. By choosing our gratings with an anti-slip surface, you minimize this risk.





Strength
Compared to other materials, gratings have one of the highest strength-to-weight ratios. They are strong, durable, and retain their shape unlike steel. In addition, they are resistant to chemical exposure.

Flexibility and ergonomics
Gratings provide flexibility and create a comfortable, safe working surface. An ergonomic floor reduces the risk of injury, increases productivity, and contributes to a more favorable working environment.

Corrosion resistance
One of the key characteristics of our gratings is their resistance to corrosion. They are widely used in various industries thanks to unique and effective formulations. They do not rot or rust, allowing them to be used for many years without maintenance, painting, or waxing.

INSTALLATION

Installation of fiberglass profiles

Fiberglass profiles are significantly lighter than their metal counterparts, which simplifies and speeds up installation while also reducing labor costs. Their light weight makes transportation and assembly easier, lowering related expenses.

These profiles are easy to work with: they can be cut, drilled, milled, and turned without difficulty, offering flexibility in the design and production of various elements. In addition, fiberglass profiles can be assembled using connecting components, as well as bolted, riveted, or adhesive joints, which simplifies the assembly process and makes it possible to create structures of any complexity.

Fiberglass is highly durable and resistant to external influences, including chemicals, moisture, and temperature fluctuations. It does not corrode or rot, maintaining its performance characteristics throughout its entire service life.

Thus, the use of fiberglass profiles allows for a significant reduction in installation time and costs, while eliminating the need for ongoing maintenance—making them a cost-effective choice for a wide range of projects.

PROJECTS

Examples of composite profile applications

Fiberglass profiles with high mechanical strength can be used in the construction of cooling towers.

You can create a wide variety of products using our fiberglass profiles with a wood-like design, which feature excellent corrosion resistance and resistance to ultraviolet radiation.

PROJECTS

Examples of composite material applications

You can use our composite materials with dielectric properties in areas where electrical insulation is required.

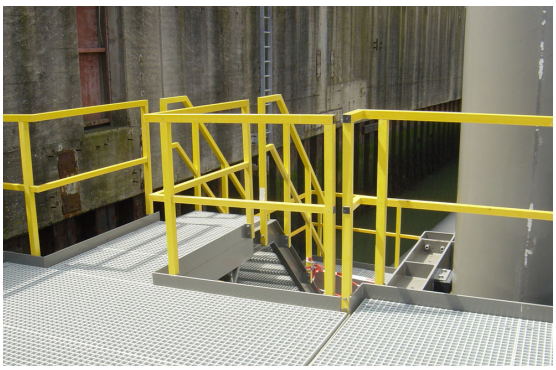
We use square tubes and gratings of various sizes for the production of staircases, technological platforms, and walkways.

PROJECTS

Examples of composite profile applications

Handrails

Handrails made from tubular or box-shaped profiles can be quickly installed using connecting elements made of stainless steel or composite parts manufactured by the SMC molding method. Thanks to the ease and speed of installation, they can be placed over large areas in a short time. The handrails are strong and designed for long-term use.



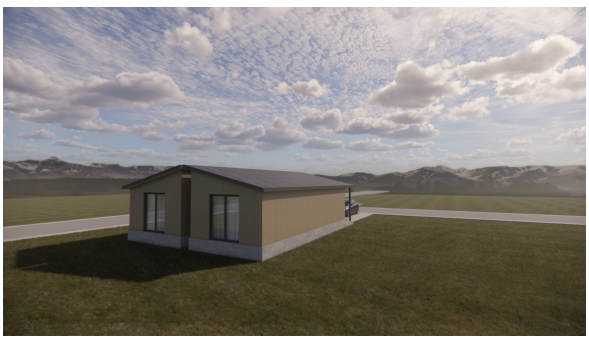
Staircases with Railings

Staircases with railings feature the core characteristics of composite materials and provide outstanding performance benefits. They can be used in treatment facilities and factories without the need for maintenance for many years.These staircases can be manufactured in various colors, do not rust, and require no painting. They are fire-resistant, safe, and highly functional.

COMPOSITE HOUSES

Frame-based modular houses made of composite materials

Our company is the only one in the region that not only produces fiberglass composite materials, but also manufactures frame-based modular houses made of fiberglass and innovative materials that meet international standards. Our composite houses do not corrode, do not rot, do not allow mold, mildew, or rodents to develop, do not absorb moisture, do not create thermal bridges, and are easy to assemble. The house can be built without a concrete foundation. It also offers excellent energy efficiency and sound insulation performance.



DETAILS

Connecting parts