Infrastructure & Transportation

Market Solutions

Fibergrate
Composite Structures

Building the World to Last®

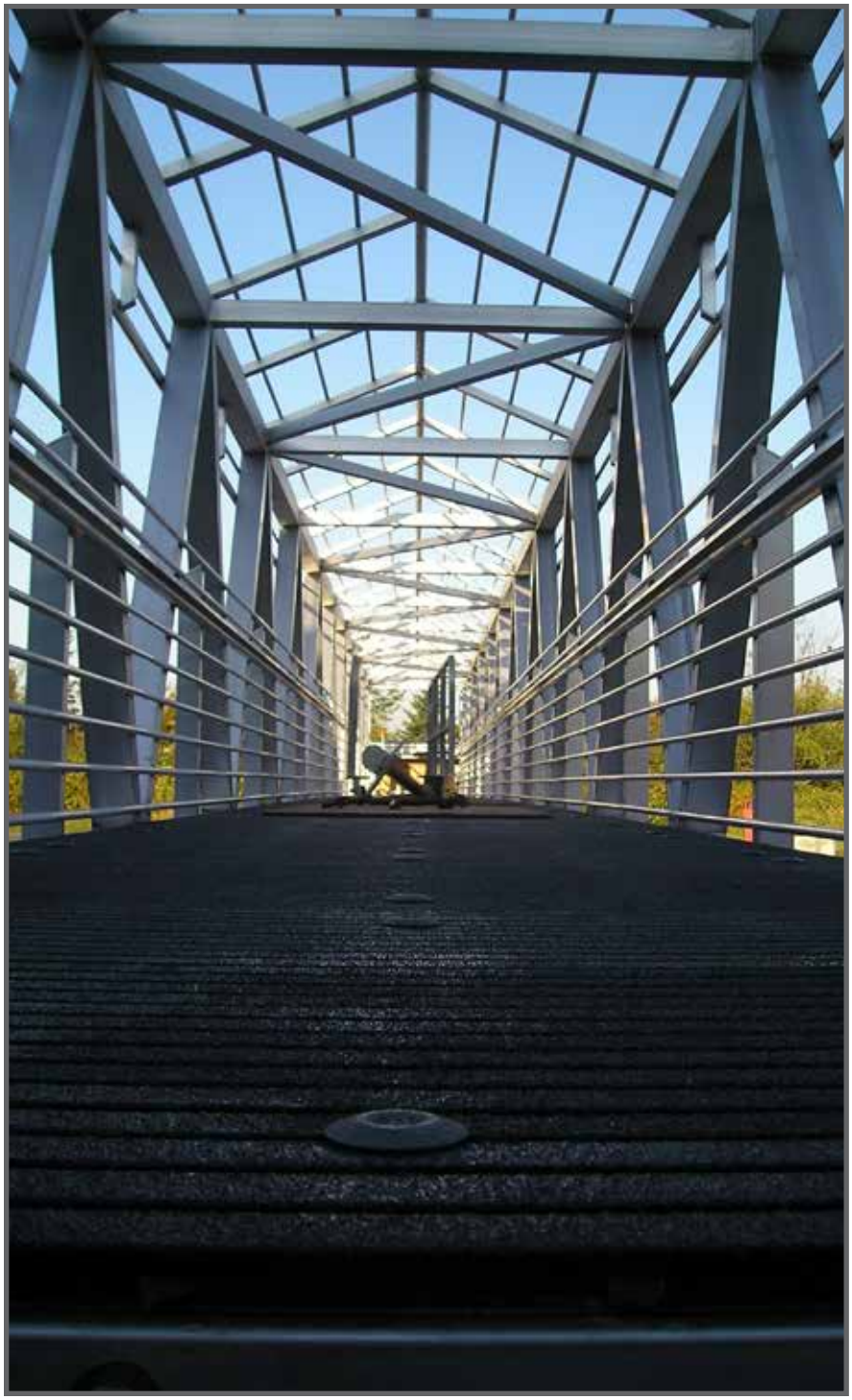
HIGH PERFORMANCE COMPOSITE SOLUTIONS

Together, we will make your vision a reality.

Fibergrate in the Transportation Market

Introduction

Fibergrate Composite Structures, Inc. stands as a worldwide producer of Glass Reinforced Plastic (GRP) engineered solutions. Renowned for its exceptional quality, Fibergrate sets the benchmark for top-tier composite products, featuring well-established brands including Fibergrate® moulded gratings, Safe-T-Span® pultruded gratings, and Dynaform® structural shapes.



Fibergrate has spearheaded a transformation in structural products, steering away from labour-intensive metals and hefty reinforced concrete towards the adoption of cutting-edge composites. As pioneers in GRP components, Fibergrate's structural materials overcome various constraints presented by metal and concrete. These solutions encompass impressive strength-to-weight ratios, easy installation, notable safety, and extended, low-maintenance life cycles.

Fibergrate's GRP products resolve challenges in the transportation industry by offering lightweight, durability, and corrosion-resistant solutions, addressing issues faced by traditional construction materials in transportation infrastructure.

Applications

- Bridge Walkways
- Pedestrian Access Ways
- Fall Prevention Railings & Covers
- Stair Solution
- Anti-Slip Walkways and Ramps
- Trench Covers
- Highway Noise Barriers
- Fencing
- Utility Enclosures

Fibergrate Benefits

Corrosion-Resistant: GRP does not rust or corrode due to weather or harsh chemicals. This unmatched protection is ensured by the manufacturing process in which fibreglass is thoroughly wetted providing continued structural integrity in tough environments.

Low Maintenance: The corrosion-resistant properties of Fibergrate products reduce or eliminate the need for sandblasting, scraping, and repainting.

Electrically & Thermally Non-Conductive: Fibergrate GRP is electrically non-conductive for safety and has low thermal conductivity which results in a safer product during metro and other construction projects.

Impact-Resistant: GRP can withstand major impacts with negligible damage. Gratings are available to satisfy even the most stringent impact requirements.

Fire-Retardant: Most Fibergrate products are engineered to have a flame spread rating of 25 or less, as tested in accordance with ASTM E-84, and meet the self-extinguishing requirements of ASTM D-635.

Engineering and Drafting: Fibergrate's team of registered professional structural engineers and drafters is committed to delivering creative, cost-efficient, and proven solutions to tackle your challenges, even in the most rigorous environments.

UV-Resistant Fibergrate designs its GRP gratings and profiles to achieve optimal UV resistance. Additionally, a specific coating is offered to enhance UV resistance in Fibergrate's railing and ladder systems.

Low Installation Cost: Fibergrate products can be easily cut with ordinary hand tools and can be installed easily with bolts and clips. Its installation can be done without using heavy equipment and machinery.

Slip-Resistant: The slip-resistant properties of Fibergrate GRP far exceed those of traditional flooring materials, especially in wet or oily conditions.

High Strength to Weight Ratio: GRP is less than one-half the weight of steel grating, allowing easy removal for access below floor level and installation with no heavy equipment and less manpower.

Allows Drainage: Open mesh grating removes standing water from walkways and access areas, or solid surface products can be used where needed.

On-Site Fabrication: Fibergrate GRP can be easily cut to size with simple carpentry tools and require no welding. The lightweight properties makes heavy-lifting equipment unnecessary since the grating can be easily handled by two workers.

Heavy Metal Safe: The EPA, OSHA and other regulatory agencies created to protect our lives and our natural resources have increased legislation to control heavy metals such as lead, chrome, cadmium and other metals in all products where exposure is a health threat. Fibergrate Composite Structures Inc. supports this strengthened legislation and has, for more than 20 years, voluntarily tested for heavy metals in our products and minimized or eliminated heavy metals from our products.

NSF® Standard 61-Certified GRP Products: Fibergrate offers a line of pultruded and moulded products that have been certified to NSF Standard 61 for potable water contact. These include Dynaform® structural shapes, Dynarail® ladder and railing systems, as well as specially formulated moulded grating. This moulded grating uses an isophthalic and vinyl ester resin formulation and is the only moulded grating available with NSF Standard 61 certification.

GRP vs. Steel: When comparing the price of Fibergrate Glass Reinforced Plastic (GRP) to metal, consider: Value = Price / Service Life

Cost Factor	Traditional Metallic Materials	The Fibergrate® Advantage
Safety Cost	Slips and falls are the second leading cause of industrial accidents and one of the leading causes of death. Each lost work day can lead to a significant cost.	Fibergrate's slip-resistant surface dramatically reduces accidental slips making it the most cost-effective solution for minimizing worker accidents and lost workdays.
Initial Installation Cost	Up front, metallic components appear to be the most economical, based on material cost alone. However, metallic materials require heavy lifting equipment, added labour for cutting, welding and painting and grating must be "edge-banded".	Although initial material investment may appear higher, don't be fooled! GRP products require no heavy lifting equipment, minimal labour, are easily fabricated with hand tools, do not need painting, and grating requires no edge-banding.
Maintenance & Replacement Cost	In highly corrosive installations, metallic products often require intensive maintenance and can deteriorate in a few years or less, requiring numerous replacements within the facility life.	Fibergrate GRP products will last much longer and require little maintenance. Fibergrate systems pay for themselves after one maintenance cycle. Many Fibergrate installations have been in service for 40+ years.

Product Solutions

Soundscape® Sound Wall

Fibergrate's GRP sound barrier walls offer an innovative solution to mitigate noise pollution in the transportation industry. These sound-absorbing barriers effectively reduce sound reverberation, enhancing acoustic comfort in high-traffic areas such as highways, railways, and airports. Lightweight and durable, they are easy to install and maintain.

The GRP material is graffiti, moisture, and freeze-thaw resistant and will not corrode, rust, or rot, meaning that once it is installed, the Soundscape® noise control barrier wall maintains its aesthetically pleasing design for 50-plus years of service life.

The customizable design allows for tailored solutions to meet specific project requirements. Fibergrate's GRP sound barrier walls promote a safer and more enjoyable experience for travelers and residents alike in urban and transit environments.

Railing and Ladders

Fibergrate's GRP handrails, guardrails, and ladders serve as essential safety components in transportation settings. Lightweight yet robust, these products provide reliable fall protection and guide pedestrian movement in various infrastructures such as airports, train stations, and bus terminals. Resistant to corrosion, GRP ensures a long service life, contributing to the overall safety and durability of transportation facilities. The customizable design options further adapt to specific project requirements, ensuring a secure and aesthetically pleasing solution for pedestrian safety in transit environments.

Product Solutions

GRP Grating and Panels

GRP Panels are used in the construction of walkways, platforms, and flooring for transportation infrastructure such as bridges, platforms, and pedestrian walkways, providing durable and non-slip surfaces for pedestrian access. These lightweight yet robust materials ensure safety on road and bridge structures, offering reliable barriers to enhance overall safety.

In railway applications, GRP grating effectively fills gaps between the tracks and the platforms, contributing to secure railway infrastructure. Specially formulated resins help Fibergrate GRP products withstand corrosive elements, even in areas where corrosive salts and shovels are used to clear snow. The low maintenance requirements and versatility make GRP grating and panels an ideal choice for diverse transportation projects - ensuring longevity and safety across bridge walkways, pedestrian access ways, road safety barriers, and railway applications.

Stair Solutions

Fibergrate's GRP stair treads, stair tread covers, and stairways play a crucial role in enhancing safety and durability in the transportation industry. Designed to exceed OSHA standards, these corrosion-resistant and slip-resistant products provide safety to the pedestrians in various transportation settings. The lightweight nature of GRP simplifies installation, reducing labour costs, while its resistance to corrosion ensures a long service life even in high-traffic areas. Fibergrate's GRP stair solutions offer a reliable and cost-effective means to improve pedestrian safety and access in transportation facilities.

GRP Structural Shapes

With exceptional strength-to-weight ratios, GRP structural components are ideal for constructing server enclosures, equipment racks, cable trays, and various support structures. Their non-conductive nature enhances electrical safety, crucial in transportation settings. Resistant to corrosion, GRP structural shapes withstand moisture and humidity, ensuring longevity in diverse weather conditions. Their lightweight properties simplify installation and reduce overall structural load, contributing to energy efficiency as well!

Product Solutions

Mechanical Support

Historically, cable trench covers have been created from heavy, reinforced concrete or metal grating. Both of these materials have significant drawbacks in appearance, safety, and weight. Now, GRP is the best choice for trench and access ducting covers. These lightweight covers ensure secure concealment of utility channels in high-traffic areas and provide a pedestrian walking surface. Fibergrate's GRP covered gratings have a high strength-to-weight ratio and resist impact.

Fibergrate trench covers can be paired with electrically non-conductive cable trays for cable management. Fibergrate's GRP trench covers and cable trays are easy to handle, durable, and resistant to corrosive elements making them an ideal choice for enhancing safety and longevity in transportation infrastructure projects.

Electrical Screening

Fibergrate grating and structural shapes can provide a low maintenance, electrically transparent solution to protect people from voltage areas, moving machinery, or restricted areas. Open mesh grating allows for air circulation and visibility, or covered grating can be used for areas that require no visibility of electrical equipment.

Product Solutions

Animal Deterrent Barriers

GRP screening also acts as a protective shield under bridges, preventing animals and other pests from creating habitats. Its durable and corrosion-resistant properties ensure long-term efficacy, offering a sustainable solution for maintaining the integrity of bridge structures while safeguarding against unwanted inhabitants.

Transit Station Solutions

GRP is used for constructing durable and weather-resistant bus shelters and transit station components. Its durability, coupled with weather resistance, ensures long-lasting and reliable infrastructure, providing commuters with shelter and comfort in various environmental conditions.

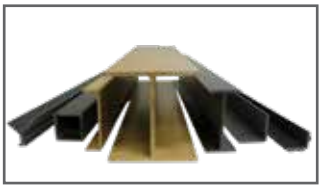
Fibergrate Products & Services

Fibergrate® Moulded Grating

Fibergrate® moulded gratings are designed to provide the ultimate in reliable performance, even in the most demanding conditions. Fibergrate offers the widest selection in the market with multiple resins and more than twenty grating configurations available in many panel sizes and surfaces.

Safe-T-Span® Pultruded Industrial & Pedestrian Gratings

Combining corrosion resistance, long-life and low maintenance, Safe-T-Span® provides unidirectional strength for industrial and pedestrian pultruded grating applications.

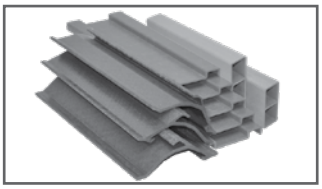


Dynaform® Structural Shapes

Fibergrate offers a wide range of standard Dynaform® pultruded structural profiles for industrial and commercial use, including I-beams, wide flange beams, round and square tubes, bars, rods, channels, leg angles and plate.

Dynarail® Guardrail, Handrail & Safety Ladder Systems

Easily assembled from durable components or engineered and prefabricated to your specifications, Dynarail® guardrail, handrail and safety ladder systems meet or exceed OSHA and strict building code requirements for safety and design.



Custom Composite Solutions

Combining Fibergrate's design, manufacturing and fabrication services allows Fibergrate to offer custom composite solutions to meet our client's specific requirements. Either through unique pultruded profiles or custom open molding, Fibergrate can help bring your vision to reality.

Design & Fabrication Services

Combining engineering expertise with an understanding of GRP applications, Fibergrate provides turnkey design and fabrication of GRP structures, including platforms, catwalks, stairways, railings and equipment support structures.

Worldwide Sales & Distribution Network

Whether a customer requires a platform in a mine in South Africa to grating on an oil rig in the North Sea, or walkways in a Wisconsin cheese plant to railings at a water treatment facility in Brazil; Fibergrate has sales and service locations throughout the world to meet the needs and exceed the expectations of any customer.

Heavy Metal SAFE
Arsenic Barium Cadmium Chromium Lead Mercury Nickel Selenium Silver

QUALITY MANAGEMENT SYSTEM CERTIFIED ISO 9001

Fibergrate Composite Structures

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