

FRP Solutions for the **Recreation Market**



40+ Years Experience

Industry Proven Success

ADA Compliant Products

Recreation-Friendly Products

Stair Solutions

Platform Solutions

Service Area Solutions

Fibergrate
Composite Structures

High Performance Composite Solutions



Fibergrate in the Recreation Industry



Fibergrate Composite Structures Inc. is a global manufacturer of fiberglass reinforced plastic (FRP) products for industrial and recreational use. Fibergrate sets the standard for high performance composite products with such proven brands as Fibergrate® and Chemgrate® molded grating, Safe-T-Span® pultruded grating, Rigidex® Moltruded® grating, Dynarail® handrail and ladder systems, and Dynaform® structural shapes. Fibergrate offers turnkey design, engineering, manufacturing, fabrication and installation services.

Within the recreation industry; corrosion resistance, safety, aesthetics and maintenance requirements are critical considerations. For nearly four decades, Fibergrate has met the challenging conditions found in the recreation industry with its wide selection of FRP products. Key product features such as corrosion resistance, slip resistance, nonconductivity and low maintenance make these products ideal for use in all types of recreational facilities.

Fibergrate's FRP products offer superior resistance to corrosive saltwater, chlorine, cleaning fluids and other chemical compounds. FRP is also designed to stand up to the harsh effects of outdoor use including extreme and varying temperatures. The result is minimal maintenance requirements, a long service life and a lower life cycle cost than traditional products. Today, Fibergrate products can be found in zoos, nature habitats, aquariums, marinas, aquatic parks, golf courses, storage facilities, gyms, swimming pools and theme parks.

Applications

- Boat Docks, Walkways
- Stairways, Decking, Bridges, Catwalks
- Access Platforms, Ramps
- Aquatic Facility Drainage Areas/Walkways
- Locker Rooms
- Swimming Pool Drains and Mechanical Rooms
- Zoo/Animal Park Screening, Access Platforms
- Aquarium Screening, Access Platforms, Barriers
- Wave Pool Wave Breaks and Drainage
- Storage Areas
- Playground Structures, Handrail, Ladders
- Air Intake and Personnel Protection Screens
- Fountains
- Golf Course Bridges and Cart Path Areas
- Nature Trail Bridges, Ramps and Outlooks



Features and Benefits of Fibergrate

- **Corrosion Resistance** - more than 15 premium grade resin systems available to meet your specific needs. This unmatched protection ensures the product will withstand saltwater, chlorine, cleaning solutions and wet weather conditions
- **Slip Resistance** - a meniscus top (service areas only) or permanent grit on Fibergrate's flooring products provides a safer, slip-resistant walking surface. Grating comes in varying textures fine grit for bare feet.
- **Low Maintenance** - corrosion resistant with color molded into product, therefore requires no scraping, sandblasting or painting to maintain its visually pleasing appearance
- **Fire Retardant** - most of Fibergrate's products are engineered to have a flame spread rating of 25 or less per ASTM E-84 and meet the self-extinguishing requirements of ASTM D-635.
- **High Strength-to-Weight Ratio** - one-third the weight of steel grating allowing easy installation with no heavy equipment and less manpower and effortless removal for access below floor level
- **Electrically and Thermally Nonconductive** - all-FRP construction increases worker safety and minimizes heat buildup creating a cooler, more comfortable walking surface
- **Easily Fabricated** - can be cut onsite using standard circular or reciprocating saws with abrasive blades
- **UV Resistant** - Fibergrate's FRP gratings are formulated for maximum UV resistance and a special coating is available for increased UV resistance on handrail and ladder systems and structural shapes



Industry Memberships



**International Association of
Amusement Parks and Attractions**

Certifications

Fibergrate's products are designed to comply with the regulations of many internationally recognized safety organizations. These products have undergone extensive independent testing and received numerous certifications, approvals and authorizations including the following:



ADA Compliant

- **Rigidex® II Moltruded® Grating**
- **Pultruded Grating - T2510, T2515, T1210, T1215, I4010, I4015, T3320**



OSHA and BOCA Compliant

- **Dynarail® Handrail and Ladder Systems**
- **Fibergrate® Molded and Pultruded Stair Treads and Molded Stair Tread Covers**

FRP Solutions for Recreation

FRP Products



Safe-T-Span® Pultruded Grating

- Superior Corrosion Resistance Compared to Metal Gratings
- High Unidirectional Strength and Stiffness for Longer Spans
- Superior Slip Resistance (with grit top)
- Aqua Grate Pultruded Grating is Barefoot Friendly
- Light Gray Color Minimizes Heat Buildup
- Several ADA-compliant Configurations Available



Fiberplate® and Chemplate® Floor Plate

- Molded in Thicknesses from 1/8" - 3/4"
- Maximum Corrosion Resistance
- Often Installed Over Traditional Surfaces for Slip Resistance (Gritted Plate) and ADA Compliance
- Non-gritted Plates Available for Non-walkway Applications



Dynarail® Handrail and Ladder Systems

- Maximum Corrosion Resistance
- Thermally and Electrically Nonconductive
- Shipped Ready-to-Install
- Can be Coated for Maximum UV Resistance



Dynaform® Structural Shapes

- Superior Corrosion Resistance to Metal Shapes
- Long Lasting, Attractive Appearance
- Can be Coated for Maximum UV Resistance
- Thermally and Electrically Nonconductive



Custom Platform Systems

- All-FRP Structure
- Designed, Engineered, Manufactured and Fabricated In-House to Meet Your Specific Needs
- Shipped Ready-to-Assemble
- Effortlessly Make Field Cuts and Penetrations



Custom Bridge Systems

- All-FRP Structure Offers Years of Low-maintenance Service
- Designed, Engineered and Fabricated In-House to Meet Your Specific Needs
- Shipped Ready-to-Assemble
- ADA Compliant Designs Available
- Lighter Weight Provides Ideal Solution for Remote Installations

FRP Solutions for Recreation

Stair Solutions



Covered Stair Treads

- 20% the Weight of Concrete Treads and Easy to Install
- Will Not Corrode Even With Salts and Cleaning Solutions
- Slip Resistant



Stair Tread Covers

- Provides Slip Resistance to Existing Stair Treads
- Installs Over Existing Wood, Concrete or Metal Treads
- Available With Phosphorescent Nosing (Emits Light When Light Source Is Removed)
- Easy and Economical to Install



Stairway Systems

- All-FRP Construction
- One-third the Weight of Steel Reduces Installation Costs
- Engineered to Meet Your Specific Requirements
- Designed with Dynarail® Handrail Systems and Dynaform® Structural Shapes

Service Area Solutions



Fibergrate® and Chemgrate® Molded Grating

- Maximum Corrosion Resistance
- Bidirectional Strength (Facilitates Field Cuts and Penetrations)
- Maximum Impact Resistance
- Superior Slip Resistance (with meniscus or grit top)
- More than 20 Mesh and Panel Configurations



Rigidex® Moltruded® Grating

- Unique Molded Unidirectional Grating
- Combines Maximum Corrosion Resistance With Longer Span Capabilities
- Rigidex II (Industrial Applications) ADA Compliant



Stair Treads

- Standard Molded and Pultruded Configurations
- Available in Open Mesh or Solid Top
- Slip and Corrosion Resistant

Case Studies



Ocean Journey Aquarium - Denver, Colorado

Fibergrate provided all of the behind-the-scenes platforms for this aquarium, including the molded walkway grating and safety handrail around and across service areas of the Sea of Cortez, the Open Blue exhibit tanks, and the Reservoir. Safe-T-Span® pultruded grating

was used at the bottom of many exhibits to support large rocks and other media in the display. Covered grating and special hand-lay-up fiberglass framing were engineered and fabricated to provide custom sliding gates. Fibergrate's products were chosen for corrosion resistance, safety and high strength-to-weight properties.



Russian River Boardwalks - Anchorage, Alaska

FRP boardwalks installed along the Russian River provide access for anglers, pedestrians and cross country skiers in the winter without ruining the vegetation on the riverbanks. Heavy pedestrian traffic and constant climbing up and down the banks by anglers caused the

riverbanks to lose vegetation creating bank erosion and river shallowing. Needing to find a material that would meet ADA requirements, be safe for pedestrians and allow light through to recovering vegetation, the U.S. Forest Service chose Fibergrate's Safe-T-Span® pedestrian pultruded grating. The light gray color blends well with natural environments.



Disney® - MGM Studios® - Orlando, Florida

Disney® used Fibergrate® and Chemgrate® molded grating in two areas of their MGM Studio Back Lot Tour. Chemgrate was on an ocean scene set in order to provide safe, slip-resistant access throughout the attraction

for the cast. Fibergrate was used along with Dynaform® structural shapes to create a corrosion-resistant faux lagoon surrounding an ice cream shop in the shape of a wading dinosaur. FRP products were chosen because of their ergonomic, corrosion-resistant, slip-resistant and low-maintenance properties.



Ontario Place - Toronto, Ontario, Canada

Dynarail® handrail was used as a barrier/retainer for a car ride at the Ontario Place entertainment park located along Lake Ontario, Canada. Dynarail handrail was used because it is corrosion resistant and easy to maintain.

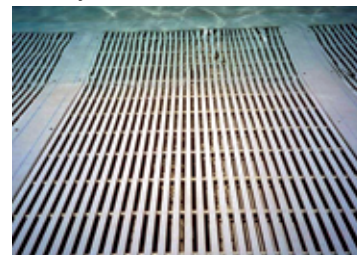
Case Studies



"The Beach" at Mandalay Bay Resort and Casino - Las Vegas, Nevada

Safe-T-Span® pultruded grating, Fiberplate® and Dynaform® structural shapes were used to create this wave pool break. When the pool was originally built, the waves would wash up on the beach

soaking everything in its path. The architects needed to create an area which would allow the waves to disperse and drain back into the pool. With its corrosion- and slip-resistant and thermally nonconductive properties, Safe-T-Span is the perfect solution.



Moody Gardens Rainforest Pyramid - Galveston, Texas

Fibergrate's FRP molded grating has been used throughout the Rainforest Pyramid. With its consistently wet environment and tropical temperatures, the pyramid must continually cycle its air. Fibergrate square mesh grating

is used extensively in this air flow system, providing corrosion-resistant, ecologically-safe, open-mesh screens. Grating is also used as skimmers, drain covers and screens in several of the rainforest exhibits. Fibergrate is used in other attractions at Moody Gardens including the Aquarium Pyramid.



McCormick Place - Chicago, Illinois

When the city of Chicago decided to dress up their expanded and renovated convention center, McCormick Place, they chose Fibergrate® covered grating.

The covered grating was used to create fountains in an outdoor

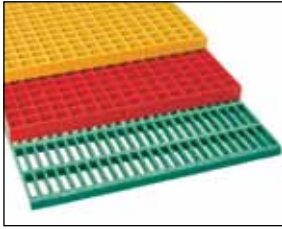
5-acre plaza (McCormick Square) and indoors in a 900-foot long Grand Concourse which also houses retail shops and restaurants. The light weight of the covered grating allowing workers easy access to pipes as well as excellent corrosion resistance make Fibergrate® the best solution.



Golf Course - Pebble Beach, California

Located just off the 18th hole at the CEO's residence, this stairway leads from his front yard to his private beach below. The stairway was constructed from Dynarail® handrail, Dynaform® structural shapes and Fibertred® stair treads to replace a corroded rusting metal stairway. The color of the stairway blends in with the natural Carmel sandstone.

Fibergrate Products & Services



Fibergrate® Molded Grating

Fibergrate molded 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 more than ten resins including Chemgrate CP-84 and more than twenty grating configurations available in many panel sizes and surfaces.

RIGIDEX® Moltruded® Grating

RIGIDEX Moltruded gratings are the first fiberglass gratings to combine the corrosion resistance of molded grating with the longer span capacity of pultruded grating, all at the low cost of metal gratings.



Safe-T-Span® Pultruded Industrial and Pedestrian Gratings

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

Dynarail® Handrail

Easily assembled from durable prefabricated components or engineered to your specifications, Dynarail handrail meets or exceeds OSHA and strict building code requirements for safety and design.

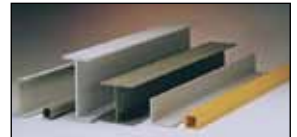


Dynarail® Safety Ladder System

Easily assembled on site, Dynarail safety ladder systems meet or exceed OSHA requirements. Though less costly than prefabricated ladder systems, these safety ladders provide a custom fit to the supporting structure.

Dynaform® Structural Shapes

Fibergrate offers a wide range of pultruded structural components for industrial use, including bars, rods, tubes, beams, channels, leg angles and plates.



Stair Solutions

Fibergrate offers a wide range of slip-resistant products to meet your stair safety needs. These durable products which include treads, tread covers and covered stair treads are a long-term, cost-efficient solution for your facility.

Grating Pedestals

Uniquely designed adjustable single and quad head pedestals for square mesh molded grating are manufactured to provide safe and economical support for elevated flooring.



Fabrication Services

Combining engineering expertise with an understanding of fiberglass applications, Fibergrate provides turnkey design and fabrication of fiberglass structures, including platforms, catwalks, stairways and test racks.