Spanning the Gap Between Performance and Value.
Custom Fiberglass Forms Division

Since 1966, Fibergrate Composite Structures has participated in over 50,000 fabrication installations worldwide. Fibergrate’s design and manufacturing capabilities are global with two manufacturing facilities and worldwide distribution. As the world of composites and composite technology advances; Fibergrate leads the revolution.

Custom Fiberglass Forms, a division of Fibergrate Composite Structures, specializes in custom fiberglass reinforced plastic (FRP) products for original equipment manufacturers (OEM) and the architectural community. Custom Fiberglass Forms works directly with customers and industries to develop individualized solutions to solve old problems, create new products or improve the quality of existing products. Our design team has years of experience creating custom FRP solutions for numerous public projects like zoos, aquariums, water parks, sunscreens, fountains, pedestrian bridges and playground equipment.

Custom Fiberglass Form’s premier product line begins with the Soundscape Wall Solutions’ sound barrier wall. Soundscape is a fiberglass reinforced plastic barrier manufactured through a high-quality pultrusion process. Soundscape Wall Solutions has developed a superior light and noise barrier wall that meets all AASHTO and DOT guidelines. With a Sound Transmission Class (STC) of 30, the Soundscape wall will provide the needed sound reduction for congested traffic or retail areas. In addition, the class 1 fire-retardant FRP material is lightweight allowing for fast modular installation and the ability to use even in challenging terrain. The Soundscape wall can span up to 24 feet and requires no heavy equipment for installation or repairs which will minimize disruption to traffic and damage to surrounding vegetation. The FRP material will not corrode, rust or rot and is graffiti, moisture and freeze thaw resistant meaning that once it is installed, the Soundscape wall maintains its aesthetic beauty for 50 plus years of service life.

Applications

- Residential Developments
- Shopping Centers
- Industrial Sites
- Schools
- Railroads
- Highways
- Restaurants
- Commercial Sites
- Recreational Facilities
The Soundscape FRP Walls provide the solution for sound barrier wall installations. The strength and benefits of Fibergrate’s FRP products continue with this product line. With the economical process of pultrusion, Soundscape planks will outperform, cost less, last longer and install faster than other noise wall options.

Soundscape Sound Barrier Features:

- Meets or Exceeds All ASSHTO and DOT Guidelines
- Modular, Lightweight Design
- Sound Transmission Class of 30
- Multiple Finish Options
- Graffiti, Moisture and Freeze Thaw Resistant
- Will Not Crack, Corrode, Rust, Warp or Rot
- No Heavy Equipment Required for Installation or Repairs
- Stronger and More Resilient Than Other Choices
- 50 Plus Years of Service
- Lowest Life Cycle Cost
- Structurally Self Supporting: No Need for Footing Under Panels
- Optional Concrete, Steel, Wood or FRP I-Beam
- Repairs and Modifications Can Easily Be Made On-Site

To form a pultruded element, continuous fiber rovings and mat are mechanically drawn through a resin bath and shaped through a series of forming guides, then pulled through a heated die.
Details

All Soundscape walls meet or exceed all AASHTO and DOT guidelines. Each Wall is made of interlocking tongue and groove fiberglass reinforced plastic planks set into concrete, steel, wood or FRP columns. The internal web design of the Soundscape plank minimizes deflection and allows each wall section to span up to 24 feet, greatly reducing the number of columns and caissons required for each project. The 12-inch high design minimizes the number of planks required per section while the tongue and groove configuration strengthens the assembled wall and eliminates the possibility of any gaps between stacked planks.

Soundscape Material Properties

<table>
<thead>
<tr>
<th>Properties</th>
<th>Test</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural Strength</td>
<td>ASTM D790</td>
<td>psi</td>
<td>30,000</td>
</tr>
<tr>
<td>Flexural Modulus</td>
<td>ASTM D790</td>
<td>x10⁶ psi</td>
<td>1.8</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>ASTM D638</td>
<td>psi</td>
<td>30,000</td>
</tr>
<tr>
<td>Tensile Modulus</td>
<td>ASTM D638</td>
<td>x10⁶ psi</td>
<td>2.5</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>ASTM D695</td>
<td>psi</td>
<td>30,000</td>
</tr>
<tr>
<td>Barcol Hardness</td>
<td>ASTM D2583</td>
<td>n/a</td>
<td>40</td>
</tr>
<tr>
<td>Impact Resistance</td>
<td>ASTM 256</td>
<td>ft-lbs/in</td>
<td>25</td>
</tr>
<tr>
<td>Sound Transmission Class (STC)</td>
<td>ASTM E90, ASTM E413</td>
<td>STC Rating</td>
<td>30</td>
</tr>
<tr>
<td>Surface Burning</td>
<td>ASTM E84</td>
<td>Flame Spread Index</td>
<td>≤ 25</td>
</tr>
</tbody>
</table>

Plank weighs 4.5 lbs/ft
Drawings and Connections

**Typical Soundscape**

**Wall Cross-Section**

**Typical Connection**

**Alternate Soldier Pile Configuration**

**Typical Angle Connections**

NOTES:
1. Site specific designs must be performed by a registered professional engineer who verifies wind load requirements and actual soil conditions.
2. Wind loads are per Guide Specifications for Structural Design of Sound Barriers Copyright 1989 and Interim Revisions.
5. Final deflections must be verified based on the criteria of the local governing body.
The Soundscape Classic Series is a smooth “shiplap” design available in 8 standard colors. The Classic Series is finished with a graffiti-resistant high-build coating of an Aliphatic Acrylic-Polyester Polyurethane to further increase resistance to corrosion, chemical abrasion and weathering. Classic Series planks of complementary colors can also be alternately stacked to build a custom pattern throughout the wall. The Classic Series Soundscape wall is also available in any custom color.

**Standard Colors**  
*Due to manufacturing and printing processes, colors will vary from actual product.*

- SANDSTONE-33510
- GRAY GREEN-34424
- AIRCRAFT GRAY-36300
- SAND-33617
- BLUE GRAY-35189
- LIGHT GRAY-36495
- TAN GREEN-34201
- SKY BLUE-35526

CUSTOM COLORS ALSO AVAILABLE
The Artisan Series takes the Classic Series to a new level with the addition of a custom formulated facade of brick, block or stucco. The Soundscape Artisan Series soundwall finish consists of a blend of naturally colored quartz aggregates in a clear 100% acrylic binder over a pigmented acrylic emulsion primer and is applied using a custom template designed specifically for your project. An Artisan Series soundwall can be designed to match an existing structure or to make your wall a one-of-a-kind installation.

Aggregate Finishes

*Due to manufacturing and printing processes, colors will vary from actual product.*

AS03 WOODBURY PINK  
AS04 WHITE ASH  
AS05 RIVER ROCK  
AS06 CHAMPAGNE GRAY  
AS02 STONY CREEK  
AS07 SEDONA RED  
AS08 EMERALD ISLE  
AS10 MIDNIGHT STORM

CUSTOM TEMPLATES AND AGGREGATES AVAILABLE
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 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 fiberglass applications, Fibergrate provides turnkey design and fabrication of fiberglass 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.