



Guide To Fabrication

Fibergrate® Molded Grating

Safe-T-Span® Pultruded Grating

Dynaform® Structural Shapes

Dynarail® Handrail and Ladders

Fibergrate
Composite Structures

High Performance Composite Solutions

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Fabrication Tips

A major advantage of using Fibergrate Composite Structures Incorporated molded products is the ease of fabrication — sawing, grinding, drilling and machining is similar to working with wood, metals and plastics. If possible, perform fabrication “on-site” to increase accuracy. Be sure to allow for saw kerf (usually 3/16”) when performing take-offs and layouts. For a nice looking installation, cut panels so bars of adjoining panels are aligned and leave a solid bar on all sides.

Recommended Safety Practices

Prior to cutting Fibergrate products, take the following steps:

1. Carefully read the Material Safety Data Sheet (MSDS). If you do not have an MSDS, contact Fibergrate prior to fabricating. Individuals with respiratory ailments should not fabricate FRP products.
2. Observe common safety precautions when using cutting tools. Always wear gloves when handling Fibergrate products. Wear approved safety glasses or goggles to protect your eyes and a respirator (mask) to reduce inhalation of dust. We recommend the use of a NIOSH/MSHA approved mask for dust with a permissible exposure limit (PEL) of not less than 0.1 mg/M³.
3. Dust from cutting FRP products can cause skin irritation. Wear clothing to reduce dust from coming into contact with skin. If cutting products causes difficulty in breathing or excessive skin irritation, stop immediately and consult a physician.
4. Observe common safety precautions when using the Sealing Kit. Read and follow instructions enclosed in the kit prior to using. Always wear safety glasses and protective clothing when working with FRP products or using a sealing kit. Do not allow resin or catalyst to come in contact with skin.

Tools Required

1. Power saw with a masonry or carbide gritted blade (Figure 1); use a rotary saw for straight cuts, a jig saw for circular cuts. For large fabrication jobs, use a diamond grit blade.
2. Sawhorses or platform for supporting products while cutting (Figure 2).
3. Tape measure, straight-edge and chalk-line or felt-tip pen for marking cuts.
4. Sandpaper, to smooth cut edges prior to sealing. For best results, use a power sanding wheel.
5. Sealing Kit (Figure 3), to seal edges after cutting.

Installation

1. Provide a minimum of 1 1/2” support around all edges.
2. Use “M-Clip” saddle-type hold-down clips (Figure 4) spaced a maximum of every 48”, with a minimum of four clips per panel.

Procedures

1. Support panel securely so it will not flex or shift during cutting.
2. Mark cuts clearly and carefully. Avoid splitting 1/4” and 5/16” bars. Molded construction allows “stubs” to support weight.
3. Cut from the smooth side (bottom) of a grit-top panel.
4. Use even, steady pressure when cutting. Excessive pressure may cause heat and/or ragged edges. Replace dull blades to prevent heat buildup.
5. Sand all cut edges. Open-grit sandpaper on a high-speed sanding wheel provides best results. Use #20 sandpaper for fine sanding and #16 sandpaper for fast sanding. Use light, even pressure to prevent wavy, uneven surfaces.
6. Use a sealing kit to coat all cut or sanded surfaces. This is recommended to prevent corrosive chemicals from reaching exposed glass fibers. Carefully read and follow the instructions included with the sealing kit.



Figure 1



Figure 2



Figure 3

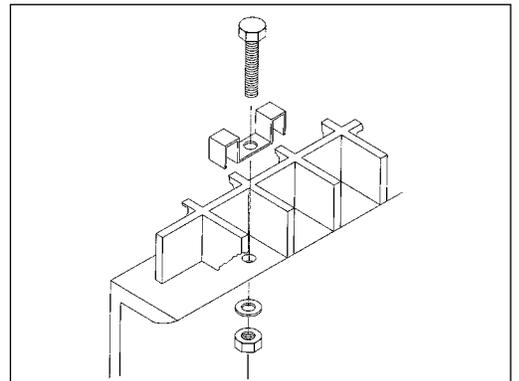


Figure 4