

Grating Selection

HR = High Recommended

R = Recommended

A = Acceptable

NR = Not Recommended

These are general comparisons. An FRP Engineering representative should be consulted for an exact match of grating and application.



Moulded and Pultruded Grating

| | Moulded Rectangular Mesh | Moulded Square Mesh | Pultruded Grating |
|---|--------------------------|---------------------|-------------------|
| Corrosion Resistance | HR | HR | R |
| Strength/ Stiffness (longest span) | R | R | HR |
| Impact Resistance | R | HR | A |
| Open Area (for drainage, aeration, light penetration) | HR | HR | A |
| Single-Direction Span | R | A | HR |
| Bidirectional Span | NR | HR | NR |
| Ease Of Layout and Installation | A | HR | A |
| Lightweight in Comparison to Metals | HR | HR | HR |
| Custom Panel Sizes Available | A | R | R |

Guide to Fabrication

Fabrication Tips

A major advantage of using FRP Engineering's fibreglass 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 thickness 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 ('banding') on all sides.

Recommended Safety Practices

Prior to cutting FRP products, take the following steps:

1. Carefully read the Materials Data Sheet(MSDS). If you have an MSDS,

contact FRP Engineering 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 FRP 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 an 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 epoxy coating or sealing kit. Read and follow instructions provided with the coating or enclosed on the kit prior

to using. Always wear personal protective equipment when working with FRP products or using a protective coating or sealing kit. DO not allow resin or catalyst to come into contact with skin.

Tools Required

1. Power saw with masonry or diamond blade for cement board products (Figure 1); use a circular 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.
3. Tape measure, straight-edge and chalk lines or felt-tip pen for marking cuts.

Installation

1. Provide a minimum of 38mm support around all edges.
2. Use "M-Clip" saddle-type hold down clips spaced a maximum of every 1200mm, 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 6mm bars. Moulded 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 blunt/worn blades to prevent build up.
5. Use an epoxy sealer to coat all cut or sanded surfaces. This is recommended to prevent corrosive chemicals from reaching exposed glass fibres. Carefully read and follow the instructions provided on the epoxy coating or those included with the sealing kit.

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