

MANUFACTURER'S INSTALLATION RECOMMENDATION FOR BULLET RESISTANT PANELS

Health & Safety Precautions

Bullet Resistant Panels come under the category of Laminated FRP (Fiber Reinforced Plastic) products. It is important for installers of fiberglass products to be properly supplied with basic health and safety equipment such as:

1. Gloves - cotton or leather to provide protection from cuts and abrasions associated with handling, drilling or cutting fiberglass materials.
2. Dust/Particle masks or respirators to provide respiratory protection against dust associated with cutting or drilling fiberglass materials. We Recommend our Dual Cartridge Respirator Part# ES285 and ES286X Respirator Filter for Dust and Mist Refills, Niosh-MSHA Approved.
3. Protective Wear to be worn over clothing to provide protection from fibrous dust that can settle in the clothing or on the skin when cutting, sanding or drilling fiberglass materials. DuPont makes an excellent protective wear product called Tyvek Protective Wear.
4. Protective Eyewear, especially when cutting, sanding or drilling fiberglass materials.

The above listed items should be worn if workers will be cutting, sanding, or drilling fiberglass materials.

Storage Precautions

We recommend that the Panels be stored inside under cover, stacked flat and off the floor. If moving materials with a forklift is needed, please

keep panels stored on the pallets that they were originally received with to avoid cracking, chipping or abrading the panels.

Installation

The panels can be cut, drilled, or sanded with the following recommendations:

1. Cutting

Skillsaw is recommended. Material should be cut slowly with either Masonry Concrete cutting blade or a diamond tip blade. Cut at a medium speed and don't force the blade or put side pressure on the blade. If dry cutting, please remove blade from cut every minute for a few seconds to cool. A panel or sabre saw can be used with a "grit-edge" blade that is designed for cutting composites. One excellent blade for skillsaw cutting is a Hilti Dry-Cutting Diamond Disc (DC 7 x .085 x DM/MC) for use with skillsaws at 8500 rpm. These are available at many specialty saw supply stores.

2. Drilling

When pre-drilling the panel it is recommended to use a carbide or cobalt tip drill bit at medium speed and with medium pressure. A counter-sinking drill hole is acceptable when a flush surface is desired. 1-3/4" wood screws are commonly used to secure panels to wood studs. Self-tapping drywall screws work well when affixing drywall to the Panels or when affixing the panels to steel studs.

3. Sanding

If you will be laminating materials against the fiberglass panels it is recommended to lightly "rough-up" the panel surface with a sander using a 120-grit paper and medium pressure. If we are notified at the time of your order that you will be laminating, we can sand the panels prior to shipment.

4. Laminating

If laminating or gluing to the panels is a requirement, there are many commercial grade adhesives available. We recommend a two component acrylic, water-based adhesive.

5. Painting

Fiberglass panels can be painted directly provided the surface is lightly sanded and a primer base-coat is applied. Either oil or water base may be applied. Surface must be wiped clean of all dust, dirt or grime.

For further installation or technical assistance, please phone, fax or E-mail to us at:

Advanced Protection Products Inc.

(519) 896-6399/ 866-300-5122 (Toll Free)

Fax: (519) 893-7855

E-Mail: info@advancedprotectionproducts.com

We thank you for choosing Advanced Protection Products and we hope to serve your Bullet-Resistant needs again in the future.

Lou Ferrigno

Advanced Protection Products Inc.