WHY BUILD WITH FRP

Fiberglass Reinforced Polymer (FRP)

FRP is a composite material made up of fiberglass reinforcements and polymer resin. The glass fiber provides the strength and stiffness, and the resin provides shape and protects the fibers.

The Pultrusion Process

PROForms® structural shapes and PROGrate® pultruded grating are manufactured with the pultrusion process. In this process, a machine grips the raw materials and "pulls" them through a series of steps until the finished profile reaches the cut-off saw.

Standard FRP Resin Systems

PROForms® and PROGrate® products are offered in three resin series to meet the requirements of different applications and environments.

Where can you find composite profiles?

1. Standard FRP Resin Systems

   - STD — STANDARD NON-FIRE RETARDANT POLYESTER
   - FR — FIRE RETARDANT POLYESTER
   - VE — VINYLESTER FIRE RETARDANT

2. WET-OUT

   Fiberglass reinforcements are pulled through a bath of thermoset resin, typically polyester or vinylester.

3. SURFACE VEIL

   Just before all the material is pulled into the heated die, surface veil may be added to enhance the surface appearance of the final product.

4. CURING

   Wet-out reinforcements are pulled through the heated die, which causes the resin to "cure" or harden. When the part exits the die, it is a solid, rigid profile in the exact shape of the die cavity with all the reinforcements laminated inside.

5. CUTTING

   The finished product is then pulled to the cut-off saw and cut to the desired length.

Projects That Feature Pultruded FRP Profiles

- M-I SWACO FACILITY
- PORT FOURCHON, LA
- LAKE KOON FISHING PIER
- CUMBERLAND VALLEY, PA
- DISCOVERY PLACE AQUARIUM, CHARLOTTE, NC
- WEST STREET PEDESTRIAN BRIDGE, NEW YORK CITY
- BELLAGIO HOTEL & CASINO
- LAS VEGAS, NV
- U.S. FOREST SERVICE PEDESTRIAN BRIDGE
- TELLURIDE, CO
- ROOKERY BAY NATIONAL ESTUARINE RESERVE
- NAPLES, FL
- CHILDREN’S MUSEUM OF HOUSTON, TX

- FOUNTAIN STRUCTURE
- BELLAGIO HOTEL & CASINO
- LAS VEGAS, NV

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- ESTUARINE RESERVE
- NAPLES, FL

- FOUNTAIN STRUCTURE
- BELLAGIO HOTEL & CASINO
- LAS VEGAS, NV

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