

Advantages

- Exceptional strength to weight properties
- Chemical and corrosion resistant
- Excellent structural properties and dimensional stability
- Water and weather resistant
- UV and fire retardancy
- Low electrical and thermal conductivity
- Very low coefficient of expansion
- Consistent color throughout
- Light weight

Grades

- Pultruded
- Molded

NOTE: Several grades of this material are available. For additional information regarding this plastic, contact your Emco Industrial Plastics representative or call (800) 292-9906.

Fiberglass Reinforced Plastic, Pultruded Profiles

Made from extremely fine glass fibers, fiberglass is used as a reinforcing agent for many polymer products. The resulting composite material is properly known as glass-reinforced plastic (GRP) in Britain, fiber-reinforced plastic (FRP) in the USA, or by the trade name Fiberglass, which has become a genericized trademark.

The plastic used in FRP can be thermo-set and thermo-plastic, most often polyester or vinylester, but other plastics, like epoxy (GRE), are also used. Other additives such as fillers, catalyst, (UV) Ultra-Violet inhibitors, and pigment may be incorporated.

FRP is the answer as a non-metallic material that has advantages over traditional materials such as wood, concrete, aluminum, and the many types of steel. It can be used in many applications where these conventional materials cannot meet required specifications such as fire ratings, impact resistance, and weight considerations.

Pultrusion is a manufacturing process that produces reinforced plastic shapes with constant cross sections. Pultruded FRPs are offered in three series designed for different environments and applications:

- Standard: All-purpose series utilizing an isophthalic polyester resin system. Color: Olive Green.
- FR/UV: All-purpose series utilizing a fire-retardant isophthalic polyester resin system with a UV inhibitor. Color: Dark Gray & Yellow.
- VE: Premium series, both fire-retardant and highly corrosion resistant, utilizing a vinyl ester resin system with a UV inhibitor. Color: Beige, Yellow.
- In addition to sheets, rods, and tube, a comprehensive line of profiles are available. Standard shapes include channels, angles, I-beams, threaded rods and nuts. Color: Beige.

Availability

TYPE	SIZE	LENGTH	COLOR
Rod	1/8" - 2" DIA Round	Std. 20' L; CTS	White, Dark Grey
Bar	1" - 1-1/2" SQ; various wall thicknesses	Std. 20' L; CTS	White, Yellow
Bar	Rectangle Available		
Tube	1" - 6" SQ; various wall thicknesses	Std. 20' L; CTS	Beige, Grey, Yellow, Olive Green
Tube	2-1/2" - 9" x 1-5/8" - 6" rectangular; various wall thicknesses	Std. 20' L; CTS	Beige, Grey, Yellow, Olive Green
Tube	1" - 3" DIA Round	Std. 20' L; CTS	Beige, Grey, Yellow, Olive Green
Profile	4" x 2" x 1/4" I-Beam up to a 12" x 12" x 1/2" Wide Flange Beam	Std. 20' L; CTS	Beige, Grey, Yellow, Olive Green
Profile	1" - 6" legs Equal Leg Angle; various wall thicknesses	Std. 20' L; CTS	Beige, Grey, Yellow, Olive Green
Profile	Channel Widths from 2" - 11"; Heights from 7/8" - 3", various wall thicknesses	Std. 20' L; CTS	Beige, Grey, Yellow, Olive Green
Profile	3/8"-16 UNC - 1"-8 UNC Threaded Rod	Std. 4', 8' L; CTS	Grey
Profile	3/8"-16 UNC - 1"-8 UNC Nuts		Grey
Other	Special Shapes Available		

Give us your cut-to-size dimensions. We will precision-cut these plastics to your exact size. Additional sizes and colors available upon request.