

Advantages of FRP pultruded profiles

High intensity

The strength & modulus ratio of FRP pultruded profiles are higher than structural steel. It can be used for structural beam, aisle, floor board and platform etc.

Light weight

The specific gravity of FRP pultruded profile is only 20-25% that of steel, 70% of aluminum. It is easy for carrying, assembling and site operation. It can even be assembled to a whole structure and dispatched to the job site. All those can simplify the construction procedure.

Anti-corrosion

FRP pultruded profile is impervious to a broad range of corrosive elements, such as acid, alkali, organic solvent, salt etc. So it can be used in paper mills, chemical plants, water and sewage treatment plants and other corrosive environments.

Electrical and thermal insulation

FRP pultruded profile has low thermal conductivity and are electrical non-conductive.

Flame retardant

The oxygen data of FRP pultruded profiles (flame retardant type) is equal or above 32 (GB8924). That can meet the requirements of normal space; by adopting the phenolic resin, the data is equal or above 65 (GB8924), the rate of flame propagation is equal or below 5 (ASTM E-84) and the smoke density is 10. With the good advantage in flame retardant, it can be applied in the areas of sea oil platforms, sidewalks, ship decks, subways, emergency escape trunk etc.

Electro-magnetic transparency

FRP pultruded profile is transparent to radio waves, microwaves and other electromagnetic.

Low coefficient of thermal expansion

The coefficient of thermal expansion of FRP pultruded profile is much lower than that of steel, aluminum etc. It is free from the impact of temperature change.

Low temperature capabilities

FRP pultruded profiles exhibit excellent mechanical properties at very low temperature. Tensile and impact strength have not been greatly influenced from -70°C to +80°C.

Anti-age

In usual speaking, the lifespan of FRP pultruded profiles is above 20 years. But after exposure through the atmosphere, the intensity can still keep more than 85% after 20 years although some change in the appearance,

Free to design

FRP pultruded profiles can be designed in accordance with the actual applications of the profiles to reach the best balance between profiles' properties and cost.

Good appearance

The color selection of FRP pultruded profiles is realized by adding different pigments in the resin mixture. By using some special surfacing veil, the appearances of FRP pultruded profiles, like wood, marble, granite etc are created.