

# Pultruded Products ( Tube Profile )

## Fiberglass Reinforced Polymers (FRP)



## **Fiberglass Reinforced Polymers**

Fiber-reinforced plastics (FRP), also known as fibre-reinforced polymers, are a category of composite plastics specifically using fibre materials to mechanically augment the elasticity and strength of the plastic. They consist of a polymer matrix – the original plastic which is usually tough but weak – which is blended with a reinforcing material to yield a final product with the desired material or mechanical properties.

## **Why FRP:**

### **- Corrosion Resistance**

FRP is **corrosion resistant**, and the main reason for using fibre-glass-reinforced plastics (FRP) is that they are inherently corrosion resistance. Moreover, FRP is the only material that will handle a given service environment. Light in weight FRP is lesser in weight and has a low pressure to strength ratio and requires one-seventh in quantity as against steel half needed half in weight as aluminium.

### **-More Strength**

Fibreglass reinforced plastic (FRP) has high strength in forming equipment for the various application be its use in missile or boat or bathtubs.

### **Affordable**

FRP is economic from the manufacturing point of view, and affordability is a crucial factor over other materials to be used.

### **Flexibility**

FRP material is flexible, and this quality makes favourite in choice over other content. Saves labour cost and easy installation One more advantage of FRP is that it helps in cutting expenses on labour and installation.

### **Fast construction speed**

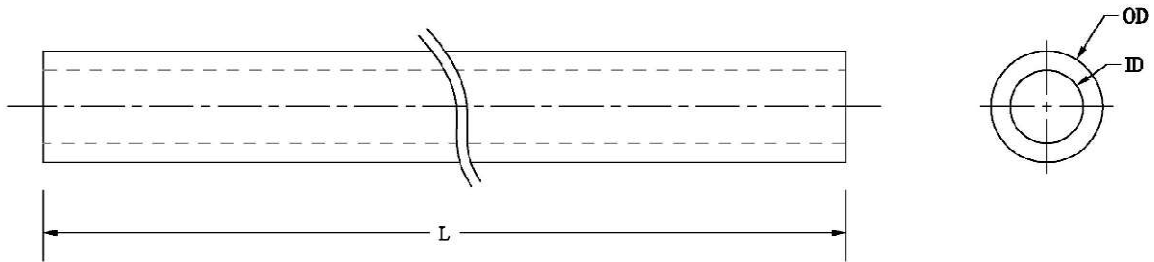
FRP helps in increasing the speed of construction of equipment and less time consuming from the industry's point of view.

### **Durability**

FRP is durable and has a long life than steel or aluminium and lasts longer and yet more productive service life and requires no replacement nor much maintenance.

### **Electrically & thermally non-conductive:**

FRP is electrically non-conductive leading to increased safety compared to conductive materials (i.e., metal).



POWERMAT CODE	ID	OD	wt. (Kg/meter )
EPT0410	4.5	9.5	0.135
EPT0919	9.5	19.1	0.460
PT 0610	6.5	10.0	0.100
PT 0812	8.5	12.0	0.135
PT 0813	8.5	12.7	0.130
PT 1016	10.5	16.0	0.240
PT 1219	12.5	19.0	0.305
PT 1220	12.5	20.0	0.405
PT 2025	19	25.0	0.450
PT S2026	20	26 SQ	0.740
PT 3238	31.75	38.1	0.660
PT 3845	38.1	44.5	0.830

- All Dimensions are in mm only.
- Tolerance is applicable as per DIN Standard 2768.