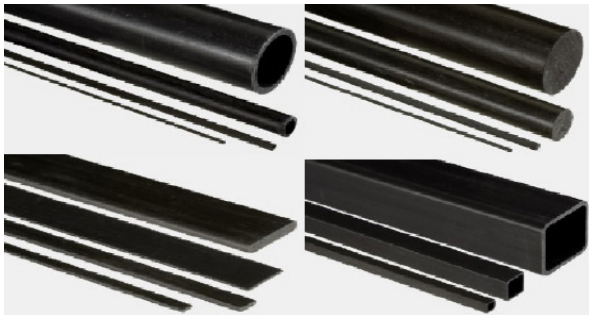
Technical Datasheet

CFP
Carbon Fibre Pultrusions



Key Features

- All fibres down length of the pultrusion
- 80C Maximum Service Temperature
- UD fibre satin finish

Description

High performance pultruded carbon fibre sections manufactured using 100% unidirectional carbon fibre. Pultruded carbon fibre sections are used in a wide range of applications requiring tubes, strips, rods or box sections of very high strength to weight ratio. The most common applications are UAVs (unmanned air vehicles), radio controlled models, robotics and recreational/ sporting equipment.

Typical Uses

- Lightweight Structural/Engineering Projects
- UAVs, quadcopters, muticopters
- Radio controlled models (planes, boats etc.)
- Engineering & automation
- Recreational equipment (tripods, sporting goods)
- Construction & restoration (concrete rebar)

Specification

The mechanical data following applies to the following size of Pultrusion.

Carbon Fibre Tube - Round & Hexangonal

2mm(1mm)	3mm(2mm)	4mm(3mm)	5mm(3mm)
6mm(4mm)	7mm(5mm)	8mm(6mm)	10mm(8mm)
12mm(10mm)			

Carbon Fibre Rod - Round & Square

0.5mm	0.8mm	1mm	1.5mm	2mm	2.5mm	3mm
4mm	5mm	6mm	8mm	10mm	12mm	

Carbon Fibre Strip

0.5mmx3mm	0.8mmx3mm	1mmx3mm	1mmx4mm
1mmx6mm	0.5mmx10mm	2mm(12mm)	

Carbon Fibre Box Section

8mm(7mm)	10mm(8mm)	20mm(17mm)

Mechanical Properties

The Following Data is representative of a typical Pultrusion.

Property	Unit	Value
Tensile Strength Lengthways	MPa	400-500
Tensile Strength Widthways	MPa	18-30
Tensile Modulus Lengthways	GPa	28-40
Tensile Modulus Widthways	GPa	8-12
Flexural Strength Lengthways	Mpa	250-400
Flexural Strength Widthways	MPa	80-150
Flexural Modulus Lengthways	GPa	20-30
Flexural Modulus Widthways	GPa	10-15
Compressive Strength Lengthways	MPa	200-320
Compressive Strength Widthways	MPa	60-100
Compressive Modulus Lengthways	GPa	10-20
Compressive Modulus Widthways	GPa	8-20
Short Beam Shear Stress	MPa	30-40
Maximum Service Temperature	℃	80
Barcol Hardness	-	25-45
Density	g/cm³	1.30-1.50

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